

Value Realization from Efficient Software Deployment

Value realization

Methods, tools, and assets

Best practices



Anshu Kak
Alex Louwe Kooijmans
Shaun A. Crain
Andrej Crepinsek
Venkata Gadepalli
Ian Hall



International Technical Support Organization

**Value Realization from Efficient Software
Deployment**

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Note: Before using this information and the product it supports, read the information in “Notices” on page xi.

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Foreword

Endorsements

Software is only valuable if it is deployed, used and delivers capabilities that provide increased efficiency, reduced costs or accelerated opportunities for your business. Too often, a software solution fails to live up to its expectations and does not generate the expected value. The reason for these failures often has less to do with the software itself and more likely aligns with the degree to which the life cycle involved with software delivery is followed and managed. While software delivery starts with the identification of a problem or opportunity and the definition of a set of associated requirements, it continues on throughout the implementation, measurement, education, support and ongoing value delivery. Throughout this book, IBM has done an excellent job of formalizing important aspects of a software delivery life cycle and highlights the process, resources, services and capabilities they provide. By utilizing this process, businesses should expect to increase their success rate in creating business value with IBM products and demonstrates the IBM commitment to being an active partner with their customers at every step of the way.

William Mitlehner, Executive at a Health Care Provider

As an IBM client, you know all too well that the value you receive from software happens after it is deployed within your organization. That is why we place a great deal of importance on the steps taken by IBM specialists to ensure that your deployment is successful. This layer of technical support can yield tremendous results for you by quickly improving your operations and positively impacting your business outcomes. IBM also benefits from your successful software deployment, strengthening your trust in our ability to partner with you on everything from software renewals to transformational business projects.

This IBM Redbooks publication highlights real-world deployment issues that will better enable our field teams to guide you through the process of deploying IBM Software. This book builds on an initiative we started a few years ago to guide and track software development and deployment with our top clients worldwide. By incorporating the feedback and wisdom of some of our client teams and top clients, we have been able to accelerate the business value we bring to you through software.

It's time for a fresh perspective on successful deployment of software. This book discusses new methods, tools, and best practices to manage the deployment process. Clients who have purchased IBM Software, especially for stand-alone projects or enterprise contracts, will find this book invaluable.

Thank you to the team who took the time to keep this important topic current and make this book both informative and enjoyable to read.

Respectfully,

Steve Mills
Senior Vice President and Group Executive, Software and Systems
IBM Software Group

The true value of software solutions comes through the successful deployment of those solutions. Delivering value to your business is our top priority at IBM, with a strong focus on helping you successfully deploy the software you purchased. This book is a great guide to software deployment that provides you with true business value as quickly as possible.

Robert LeBlanc
Senior Vice President, Middleware Software
IBM Software Group

Software provides incredible value to an organization to solve business challenges. Software can help improve business processes, manage capital goods and human knowledge, speed transactions, capture data, find insights in large sets of information, and in general can make businesses more profitable and organizations more effective. But for software to do this, it needs to be planned, installed, and deployed.

This IBM Redbooks publication provides a comprehensive framework for how any organization can build quality implementation plans and deploy software quickly. By using these tested approaches, technical and business teams can accelerate projects and reap the benefits of their projects in the shortest amount of time

The individuals who have developed the materials in this book are seasoned professionals, each with many years of experience in architecting and managing software deployment projects with IBM clients around the world. This is our third -- and best -- edition, developed in consultation directly with our prestigious clients as well as with IBM technical teams. I recommend that you take advantage of their experience, captured here in this book, to help make your own deployment processes more effective.

Dale Rebhorn
Vice President, Client Technical Professionals
IBM Software Group

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Preface

IBM® is working with you and all of our clients to build a Smarter Planet™. IBM software delivers many of the components and solutions that are needed to deliver that promise of a Smarter Planet in your organization. However, unless the software is used, or deployed as we call it, it can never demonstrate its value.

Many companies have a complex process for purchasing software that is required by IT projects, or better, by the business. Usually software is purchased by a centralized procurement function, and is either purchased on a project-by-project basis or as a large periodic software contract.

Unfortunately purchasing software products does not automatically mean that these products are exploited throughout the organization providing the maximum possible value to the business units. Issues that typically arise are:

- ▶ When software is purchased as a large periodic (for example bi-annual) software contract, not everyone in the organization is aware of exactly what was purchased. This might even lead to situations where a project team attempts to select and even purchase software, while a software product with the required functionality is already on the shelf.
- ▶ Even though the intention is to fully understand all functionality and the value of each software product prior to purchasing it, it is not uncommon that there is very limited knowledge throughout the organization after the purchase. Many times only a few individuals are involved in the verification of the purchase of software products and the rest of the organization remains relatively unaware of the capabilities.
- ▶ After the software begins to be actually deployed to projects, not enough preparation occurs to be ready for use, which can be a matter of education of the project members or proper configuration of software prior to using it.

These issues call for a structured approach that enforces to get the most business value out of software already purchased. The objectives of this approach are to:

- ▶ Create maximum *awareness* throughout the organization of the software purchased. Not just the titles of the software products, but also the product's capabilities and information about where these products can provide value to the business.
- ▶ *Track* software usage in IT projects and act if certain software products are not used at all, used improperly, or insufficiently used. After all, there was a reason why a software product was purchased in the first place, and there

must be a process in place to assure that the original goals of the software purchase are met.

- *Facilitate* use of software products in projects, especially in situations where software products are complex and where there is a lot of integration. This can mean anything from running education sessions to using services offerings from IBM or other vendors to help plan and prepare activities.

We can summarize the overall objective of this approach as making sure that the business units in an organization obtain the maximum possible value of software products purchased, which is also the scope of this IBM Redbooks® publication.

The team who wrote this book

This book was produced by a team of software architects and software deployment leaders from around the world.

This effort was initiated and led by Anshu Kak, Distinguished Engineer, Worldwide Software Client Architect Leadership Team.

Alex Louwe Kooijmans was the International Technical Support Organization (ITSO) Project Leader for the development of this IBM Redbooks publication.

Anshu Kak is a Distinguished Engineer in the IBM Software Group. She is an IBM Chief Technology Officer (CTO) in the Software Group and a Client Technical Professional for Cloud Computing and Smarter Computing. Previously, she was IBM CTO for the Middle East and Africa. Prior to that, Anshu lead the Worldwide Software IT Architect Community. Anshu is recognized as a leader in the deployment of architecture and the design of complex, end-to-end client solutions using her deep technical expertise in enterprise architecture, WebSphere®, service-oriented architecture (SOA), and cloud and master data management. Anshu is a certified enterprise architect of The Open Group Architecture Framework. Anshu is focused on strengthening the skills of the software IT architect community and has a passion for developing the architecture skills of key growth markets, including Russia, India, South Africa, Middle East, Latin America, and China. In addition, Anshu spearheaded the software deployment initiative for the IBM Software Group by putting the structure in place and working with teams and clients worldwide on this initiative. She authored the IBM internal book, *Guidance to Successful Software Deployment*. Anshu is a tenacious advocate of technical vitality, both inside and outside of IBM. Twice she received the Women In Color Technology All-Star Award from a national magazine. She is a member of Open Group, the Association for Computing Machinery, and the Women in Technology consortium. She is an IBM Ambassador to New York University in New York.

Alex Louwe Kooijmans is a project leader with the ITSO in Poughkeepsie, NY, and specializes in service-oriented architecture technology and solutions using System z®. He also specializes in application modernization and transformation on z/OS®, both from an architectural and tooling perspective. Previously, he worked as a Client IT Architect in the financial services sector with IBM in the Netherlands, advising financial services companies about IT issues, such as software, hardware, and on-demand strategies. Alex also worked at the Technical Marketing Competence Center for zSeries® and Linux in Boeblingen, Germany, providing support to customers starting up with Java and WebSphere on System z. From 1997 to 2000, Alex completed a previous assignment with the ITSO, managing various IBM Redbooks projects and delivering workshops around the world in the area of WebSphere, Java, and e-business technology using System z. Prior to 1997, Alex held a variety of positions in application design and development, product support, and project management, mostly in relation to the IBM mainframe. Alex has 23 years of IT experience and is the lead author of many IBM Redbooks and Redpapers™.

Shaun A. Crain is the Software Architect Executive and Software Deployment Leader for IBM Asia Pacific, based in Canberra, Australia. He has 26 years of experience in the IT field in both technical and leadership roles. He spent ten years with the Australian Government in a variety of roles, including application development, UNIX, and other systems administration and infrastructure management and leadership roles, including Director of IT Facilities. Since that time, Shaun has spent 16 years working for IT vendors in technical pre-sales and sales roles for both hardware and software products and services. He has an IT degree from the University of Canberra, Australia. His areas of expertise include software solution design and deployment, and he has an interest in social software and in the government industry. Shaun previously authored technical articles published in specialist publications, and this is his first book as a co-author.

Andrej Crepinsek is a CTO for IBM Central & Eastern Europe. He has worked at IBM since 1992, and before his appointment as a CTO, he led the IBM Software Architect regional teams for eight years. He is an Opengroup Distinguished Certified IT Architect with a strong background in methodologies, enterprise architecture, and project management. He used this knowledge in developing relationships toward successful software deployment. Andrej was also acting as an IBM Software Deployment Leader for the Central & Eastern Europe, Middle East, Africa, Austria, Switzerland regions and for the Central & Eastern Europe, Middle East, and Africa regions.

Venkata Gadepalli is a Senior Managing Consultant in the IBM Software Services for the WebSphere organization where he works as part of the Worldwide Technology Practice. He worked extensively with the WebSphere suite of products, performing proofs of concept, pilots, and architecture design. He also specializes in business process management, application server infrastructure, and, more recently, WebSphere Cloudburst. Vishy is also a co-author of WebSphere Portal Primer, published by IBM Press.

Ian Hall is a Certified IT Architect in the New York area Software Business Unit. Ian has been with IBM for 32 years and a Software Client Architect for ten. He is the co-lead Software Client Architect on the Americas Integrated Operating Team for the financial markets industry. He serves on the Americas IT Architecture Certification Board and is currently the lead Software Client Architect for Citigroup.

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William Mitlehner
Executive from a Health Care Provider

Michelle Zaremskas
Executive from a Health Care Provider

Chris Duffy
Australian Bureau of Statistics

Karen Dewar
IBM Director of Client Technical Professionals and Services, Software Group
Southwest IOT

Alberto Salkeld
IBM Director of Client Value Acceleration, SWG Technical Team

Geoff Harrold
IBM Software Sales, ELA Deployment Architect

Colin Lam
IBM Executive, Greater China Geography, Software Client Architects

Elizabeth Chavez
Client experience executive, IBM Software Group North America

Julie King
Former IBM

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- ▶ Jeremy Gibson, Program Manager, Customer Success Strategies
- ▶ David Backman, Program Executive, Software IT Architect Community
- ▶ Mike Ransom, ITSO Project Leader
- ▶ Reid S. Byers, Software IT Architect

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Software deployment perspectives and challenges

1.1 What this chapter is about

What is software deployment, and how can its value be measured? To some, software deployment is the process of realizing value from purchased software. To others, it is the process of putting software and software solutions into place to ultimately drive business success. These and other perspectives have a common theme: that software is an investment; one that can only be measured in terms of cost until it is successfully deployed and used.

Measuring the benefits derived from software deployment, or determining its value realization, is one of the primary challenges in IT organizations today. This applies whether an organization purchased a single product, a suite of products, or perhaps they entered into an enterprise agreement with IBM.

Mr. Steve Mills, IBM Senior Vice President and Group Executive for Software and Systems, states, "I've never met a customer who wants to buy software. (Customers) want to deploy software, and they want to know who's going to be there after they deploy it".¹ Customers want to achieve business goals in the shortest time frame, with the lowest cost, and the smartest use of software that can support this goal.

To maximize the availability of IT solutions to an organization, it is critical that software deployment methods are efficient. It is not efficient, for example, to purchase software licenses and not use the product. This is not only an inefficient use of funds but also not possible to demonstrate the value of the purchase. A successful deployment provides indisputable value and functionality to the organization and therefore success for you. Working closely with IBM to deploy software, this value can be realized.

In your deployment endeavors, your goals are likely three-fold, to:

- ▶ Save money on existing, projected, and future requirements, thus achieving value
- ▶ Deliver productivity gains for ongoing activities by reducing expenses and increasing staff productivity
- ▶ Deliver IT innovation to your line of business users and to gain and maintain a competitive advantage

In this chapter, we explore value realization, its benefits and challenges, and methods for its measurement. We also examine the typical challenges of software deployment. In this publication, we bring our extensive experience in software deployment to your organization to help you to:

¹ http://money.cnn.com/magazines/business2/business2_archive/2003/04/01/339816/index.htm

- ▶ Bring true value and sustainability to your deployment activities
- ▶ Determine and achieve value realization in your environment

1.2 Benefits of deployment efficiency and a relationship with IBM

Software deployment is about realizing the highest value provided by the software. The complexity of selecting and using the right technologies for your situation and architecting a solution based on those technologies requires deep technology skills and expertise. An interlock with IBM as a technology vendor is crucial for success.

Software deployment is also about developing and maintaining a relationship with IBM so that your deployments are as efficient as possible. Our vision is to create a win/win relationship. Your relationship with IBM is more than just with our technical and sales teams. You can also utilize IBM for usage and architecture patterns and other best practices, software support services, and educational offerings.

Other benefits of this relationship, as demonstrated with other clients, might include the ability to:

- ▶ Build IT strategies around preferred vendor offerings
- ▶ Deliver pricing consistency, eliminating the need for individual negotiations by product and project
- ▶ Deliver further pricing consistency for budget and ongoing planning purposes
- ▶ Contain the overall costs of software
- ▶ Deliver on service level agreements (SLAs) to your line of business user community
- ▶ Reassure that the vendor will “make it right”
- ▶ Obtain software easily, by download, by simple email template, or by an electronic ordering system
- ▶ Access the IBM skilled resources, such as subject matter experts (SMEs)

The benefits of effective software deployment extend beyond the use of new software. Benefits are also derived from the software that your organization currently uses.

The IBM methodologies in Redbooks are designed to deliver success and value to your organization.

1.3 Software deployment challenges

In our experience, we learned that some clients frequently do not recognize the level of commitment required to achieve deployment success. This is an important oversight in the deployment process, so we discuss this in more detail, next.

1.3.1 Deployment ownership

Successful deployments require that one person, or one team, has ownership of the deployment process. You as the client are ultimately the owner of your deployment projects. Our experience shows that, in many instances, unsuccessful deployments did not have this required component. There was no team with the explicit charge of owning the process. Figure 1-1 depicts the ownership and responsibilities that are essentials for successful deployments, from the perspectives of both you and IBM.

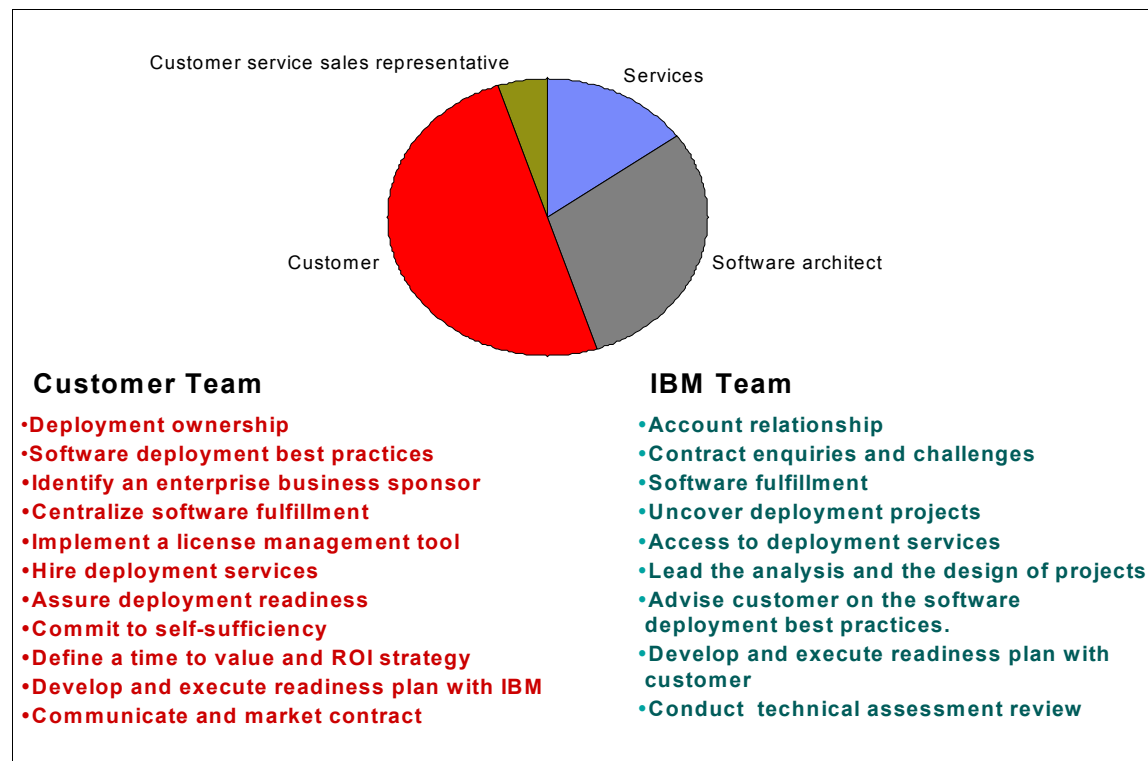


Figure 1-1 Software deployment ownership and responsibilities

Ownership of the deployment essentials in Figure 1-1 on page 4 is critical. Examples follow, in which proper ownership was not taken. These examples shed light on how significant proper ownership is and the gaps that might result:

- ▶ A deployment strategy is not mapped out. Software is not assigned to a project or early projects are not identified, and the scope and schedule of software implementation is not considered.
- ▶ The identification and sourcing of appropriate, skilled resources is not carried out, nor is the building of appropriate internal skills.
- ▶ A transition plan from the purchasing team to the implementation team does not clearly articulate expectations, roles, and responsibilities.
- ▶ Deployment projects do not finish on time. Software deployment is inherently complex and involves multiple components and organizations. Therefore, project management that is reactive, rather than proactive, results in delayed implementation due to challenges that arise late in the process.
- ▶ Successful solutions and deployment methods are not used across the broader enterprise. The client and IBM are tasked with a single implementation. Therefore, they do not focus on using the lessons, experiences, and investment from this single need across the broader environment.

The lack of focus in each of these areas resulted in a less than optimal return from the software investment. It also spawned situations in which multiple projects ran in parallel, and there was inadequate infrastructure or mechanics to use common components, tasks, resources, and lessons.

In contrast, successful deployment requires proactive focus and attention from both you and IBM in the following areas:

- ▶ Understanding and qualifying the initial demand (projects)
- ▶ Identifying the core team, with individuals from your organization and IBM, who will coordinate the overall software deployment process
- ▶ Developing a deployment strategy that will achieve defined business goals
- ▶ Continually defining new projects that help to overcome new challenges
- ▶ Implementing good overall IT governance practices, such as deployment status tracking, software license management tooling, and portfolio management processes

1.3.2 Organizational challenges

Getting value from your software purchase and the business projects that the software supports might force you to face serious threats from organizational and

political problems within your business. These organizational challenges might include:

- ▶ *Reorganization of the company structure:* This causes uncertainty in the roles and responsibilities for software deployment.
- ▶ *Mergers and acquisitions:* These might cause doubt about the strength of business projects, or possibly serious delays, while decisions are made about duplicate systems and organization mergers.
- ▶ *Key role changes:* Changes in key C-level executives in your organization, or key stakeholders for a specific project, might delay or suspend deployment.
- ▶ *Objections and preferences:* Individual stakeholder objections, or executives with conflicting business objectives or technical preferences, can send a project off track or cause doubt in the organization about the viability of the solution.

Although this book is not purposed with providing guidance for these challenges, in the context of software deployment, it is important to recognize and identify these challenges and to implement a plan to address them.

1.3.3 Technical challenges

Deployment of software in the 21st century is no longer about the simple installation of a product and training in the use of it. Deployment now involves an architected set of products, often from multiple vendors, and the integration of these products into existing environments.

A good architecture-based solution design was likely in existence in your organization before you purchased the software currently being deployed. But even with the best planning, you can still encounter technical challenges in software deployment. These technical challenges generally fall into the following categories:

- ▶ **Integration:** Problems connecting one piece of software to another new or existing product or service
- ▶ **Product faults:** The software or hardware does not perform the function as specified by the manufacturer
- ▶ **Product fit for purpose problems:** The product does what the manufacturer intended, but does not suit the current requirement
- ▶ **Product knowledge:** The team does not have the level of skill or product knowledge to implement the solution properly
- ▶ **Scalability and other non-functional usability challenges:** The product works, but it does not provide the expected performance or user experience

These are all well-known issues that impact all IT projects. In this book, we recommend a set of best practices² that can reduce the impact these challenges. We also explain how you can use IBM Services³ and IBM Subscription & Support (S&S)⁴ to address technical issues with IBM products should they occur.

1.3.4 Other challenges

Regardless of the size or scale of a particular deployment, several challenges must be addressed in every deployment:

- ▶ Separation of the solution design and negotiation teams from the implementation team: Ideally, key members of the implementation team and key stakeholders participate in the development and negotiation of any agreement. This commences a sense of ownership and ensures that business goals drive the product selection process. If these teams are separate, a complete transition in ownership is vital. Roles and responsibilities must be crisply defined, assumptions clarified, and expectations documented. It is too easy for early projects to falter or become delayed when teams try to collect information and direction from the negotiation process after the fact.
- ▶ When software is purchased, the associated projects might not be concretely defined to maximize software utilization: Because of this, additional planning is needed to identify projects that will put the purchased software to use. In addition, new or changing business needs will arise and must be responded to throughout the deployment cycle.
- ▶ The persons in the organization who own software deployment must be identified and involved during project identification and product selection: With these persons identified, they will be aware of the products that were purchased and the business challenges that the agreement was crafted to solve.
- ▶ If any individuals or areas of the organization are opposed to the vendor or the products purchased, address this early: A negative perception at an early stage has the potential of undermining the success of one or more projects.
- ▶ The deployment of software sold can cross a wide range of departments, lines of business, and multiple contacts that might or might not have been included in the sales or negotiation phases of the agreement: To maximize deployment performance, the entire IT organization must be aligned behind one mission, regardless of how tactical the individual project needs might be.

² Refer to “Best practices” on page 50.

³ Refer to Chapter 5, “Using IBM Services to complement your skills and accelerate value” on page 113.

⁴ Refer to Chapter 8, “How to effectively engage with IBM customer support” on page 153.

- It is not uncommon for software to remain unused for long periods of time during the term of the agreement: Recognizing this situation early and putting actions in place to prevent this is critical.

1.3.5 Tools to assist with the challenges

To assist in your deployment success, IBM developed the software deployment method, which we discuss in “Tools” on page 71. In this Tools section, we also discuss acceleration tools and deployment best practices that we developed (see “Best practices” on page 50).

1.4 Value realization

Software is an investment that can only be measured in terms of cost until it is successfully deployed and used. After it is deployed and used, how is the value realization of that product measured?

Software is part of an overall solution that includes other infrastructure components, such as server hardware and networking infrastructure. The implementation of software, and the value to be obtained from it, is dependent on the successful implementation of the surrounding solution components and architecture.

During the process of selecting and procuring the solution, some customers work with the IBM client team to develop a Business Value Assessment. This assessment might outline the expected business return in financial terms, the business value items, or perhaps the returns in process improvement.

1.4.1 Approaches to value realization

Our observation is that clients use one of three typical approaches to obtaining and measuring value from software, as shown in Figure 1-2 on page 9.

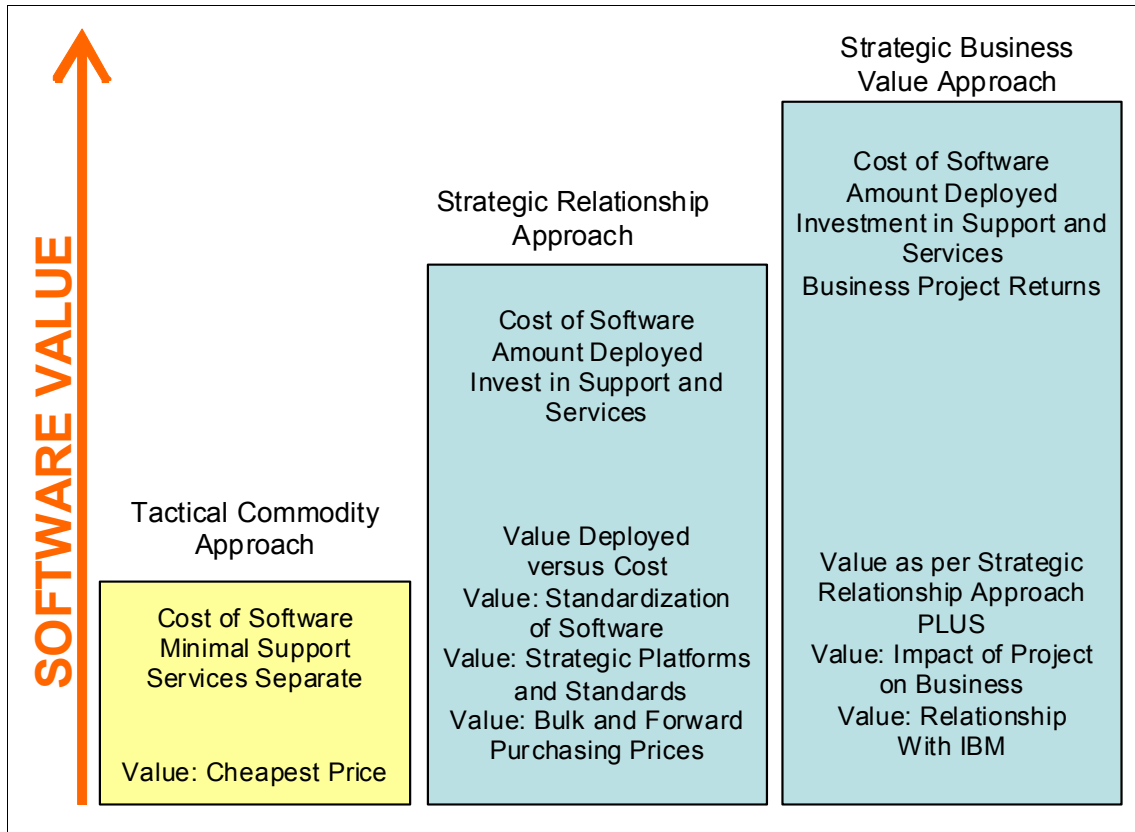


Figure 1-2 Three approaches to value realization

The approaches to value realization are:

- **Tactical commodity approach:** The most simplistic approach to measuring the value of your software is at the time of purchase. In this approach, software is selected, purchased, and consumed based on cost. Little or no consideration is given to the return to the business from the benefits of using the software. Therefore, the value is measured by purchase price, or whether it was purchased at a discount or using the least expensive option. Ongoing value is not often measured, and ongoing S&S charges for the products are measured as an expense. Often, there is little or no ongoing relationship with the vendor, and minimal support is requested. A tactical purchase cost approach might be valid for specific, low-value commodity software, such as an office automation tool for each desktop.

When this approach is used for extensive software agreements, however, it might not drive the correct use of the purchased software. Some clients implement internal charging mechanisms to help measure the value for their

procurement process, or they might continue to test the market for alternative solutions for each project against the purchased software. These practices are not recommended because they often lead to low value from the purchase, a lack of standardization, and possibly extra costs.

- Strategic relationship approach: A better approach to purchasing and measuring the value of software is with a strategic relationship established with IBM. Using this approach, the software is chosen as a strategic platform or with a specific solution outcome that is bought for large projects, based on a solution provided by IBM or an integration partner. Here, the value can be measured by how much of the software is in use and by the purchase cost. For example, software that is purchased to implement a specific solution is often considered valuable only after the solution is implemented.

Clients who choose this approach to gain an understanding of the value of software often value:

- Additional proactive support offerings to maintain the infrastructure
- An ongoing relationship with IBM to use the solution as effectively as possible

- Strategic business value approach: In our experience, customers that have the most success in obtaining business value from their software are more interested in the business return value of a project and program of work supported by the software than merely the value of the software itself. The cost of the software is of minimal concern when compared to the value to the business or the project or systems associated with it. With a strategic business value approach, the software is chosen as a strategic platform, and a partnership with IBM is attached to business projects and strategic plans.

If you take this approach, you also value the additional support and deployment services from IBM to ensure that your internal team focuses on business value. Measuring the value of software is not as easy with this approach because you must consider the amount of software deployed, the outcome of the project, and the impact of the project on the organization.

We often see that our clients with enterprise agreements move sequentially through each of these approaches over several years as their own maturity in using the products and the relationship with IBM develops. We do see a clear trend of customers achieving greater value from their agreements after adopting one of these strategic approaches.

Whichever approach is most natural for your organization, the software must be used to gather the most value from it. In this book, we outline the best practices and a proven method for the governance of software deployment to help you achieve value from this investment.

1.4.2 Measurement of hard and soft returns on investment

Significant investments in IBM software can be realized when all teams have the same perception of value in the investment and when any issues regarding value realization are addressed properly and effectively. You might consider the value of your software investment from either a tactical, cost perspective, or a strategic project value perspective. In either case, there are both hard (tangible) and soft (intangible) measurements that apply to determining your returns on investment (ROIs).

A hard ROI can be quantified with numbers, whereas a soft ROI is based on factors, such as perception, intuition, and qualitative indicators. Soft ROI should not be deprecated in favor of a hard ROI when determining the true value of software deployment projects.

An awareness of ROI helps an organization to understand the potential value from investing in the deployment of hardware, software, and services. Whether the drivers for the purchase are based on proactive needs or a simple reaction to perceived trends, the desire to track and quantify benefits is absolute.

Typically, the ROI is driven by a business that is interested in achieving cost savings or increased productivity. Therefore, it is essential to quantify pragmatic, tangible benefits that are tied directly to the business goals and objectives of your organization.

Figure 1-3 on page 12 illustrates the primary factors affecting hard and soft ROIs.

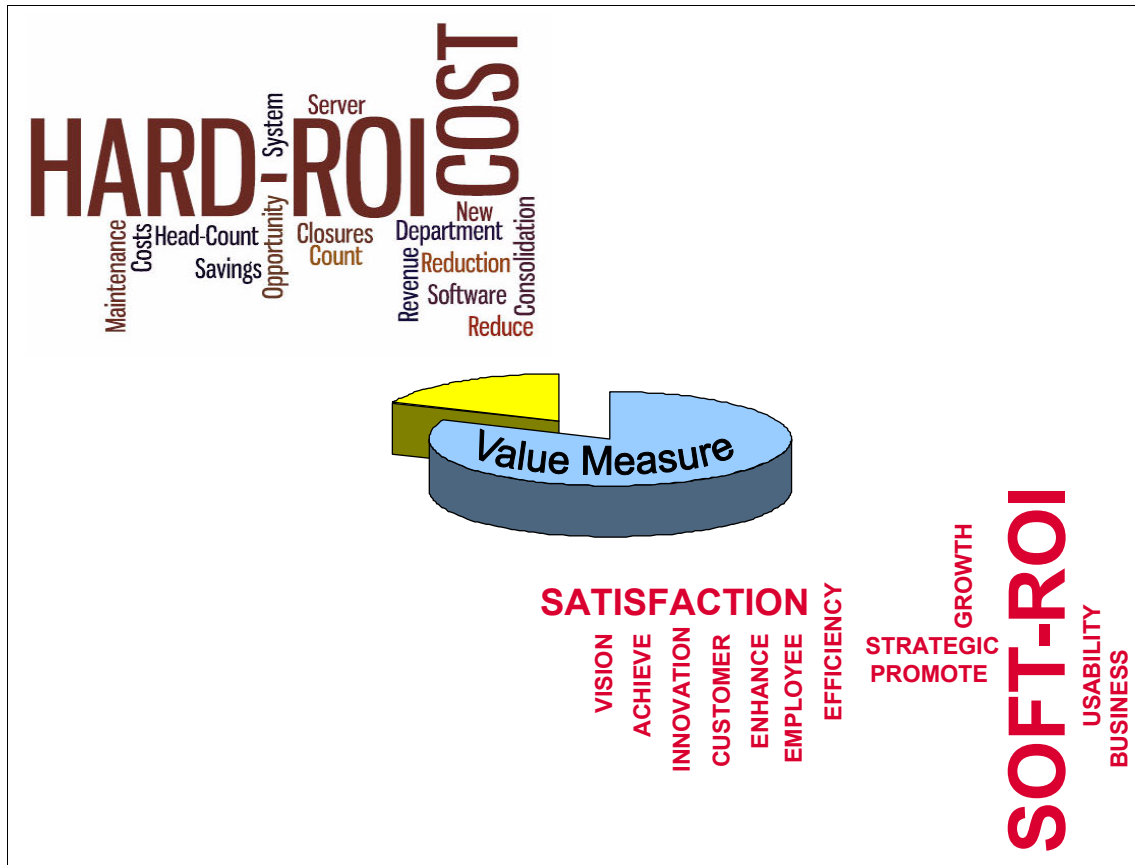


Figure 1-3 Factors affecting hard and soft ROIs

Hard ROIs

The following hard ROI factors can be used to measure the value of software deployment projects:

- ▶ Head count savings: Software solutions can provide automation and operational efficiencies that increase productivity. This allows for more work to be done by the same number of employees, reducing the need for new hires. Alternatively, the current workload can be handled by fewer employees. Your finance or human resources department can determine the full cost per employee, so that head count savings can be mapped to dollars saved.
- ▶ System count reduction: Hardware has fixed costs associated with it. Therefore, solutions connected with reducing hardware inventory by using the hardware more efficiently are tangible solutions, making dollars saved quantifiable.

- ▶ **Server consolidation:** It might be less expensive to move solutions from several small machines to fewer larger machines, while maintaining or improving the level of service. Again, because hardware costs are fixed, the dollars saved can be quantified.
- ▶ **Software license re-use:** An architected solution for your deployed software has the potential to provide savings in license costs and integration costs and lower administration and maintenance costs.
- ▶ **Department closures:** Sometimes, a solution eliminates the need for entire departments. This elimination can include head count savings, system count reductions, and server consolidations. It can also include the elimination of telephone, facility, or real estate costs, each of which has associated savings. Professional studies that quantify hard ROI require a significant time commitment; in some cases, six to nine months. These studies involve questionnaires and interviews that can contain hundreds of questions. Because many departments in the company are asked to participate, the time investment can be substantial. When the process is complete, it can take days or weeks for the analysis and results to be made available.

Additionally, even hard ROI is somewhat subjective. Keep these points in mind before embarking on the lengthy process of defining ROI in this manner

- ▶ **Leveraging Business Value Assessments:** Be sure to take advantage of any IBM business value assessments that were prepared during the solutioning process with IBM. (For more information about assessments and client value methods, speak with your IBM representative.) There might have been one or more IBM software brand-specific assessments prepared, and there also might have been an industry assessment prepared for the value of an IBM industry solution. The cost information gathered during the assessment process can be reused to provide hard ROI metrics for software deployment projects.

Soft ROIs

Soft ROI factors that can be used to measure the value of software deployment projects include:

- ▶ **Helping the company achieve its strategic vision:** It can be difficult to quantify the value of attaining the business vision, but there should be no question that attaining it produces value.
- ▶ **Enhancing usability:** Suppose that the multiple applications that employees work with were to have the same look and feel. There are productivity and satisfaction gains from achieving such a goal.
- ▶ **Promoting business growth:** Most businesses want to grow. Solutions that support seamless business expansion are of value.

- ▶ Streamlining the work within the company: Efficiency is hard to measure, but employees usually know when it is missing. Solutions that re-engineer organizations or streamline processes might have soft ROI but important ROI nonetheless.
- ▶ Developing an innovative process: Coupled with thought leadership and executive business sponsorship, software solutions can deliver enhanced collaboration and a harvesting of ideas that can be used to create valuable innovative initiatives.
- ▶ Improving client satisfaction: Evaluate how employees feel about their jobs, their departments, the processes they follow, their productivity, the tools they use, their upper management, and their employer.

1.4.3 Managing issues that inhibit or prevent value realization

In the discussion about 1.3, “Software deployment challenges” on page 4, we outlined several challenges that can hinder the value realization of software. These challenges, along with other issues, require proactive attention to minimize their impact.

The key to minimizing these challenges is a simple approach:

- ▶ Recognize the issues
- ▶ Plan to resolve issues
- ▶ Put plans into action
- ▶ Implement and measure success

These steps are depicted graphically in Figure 1-4 on page 15.

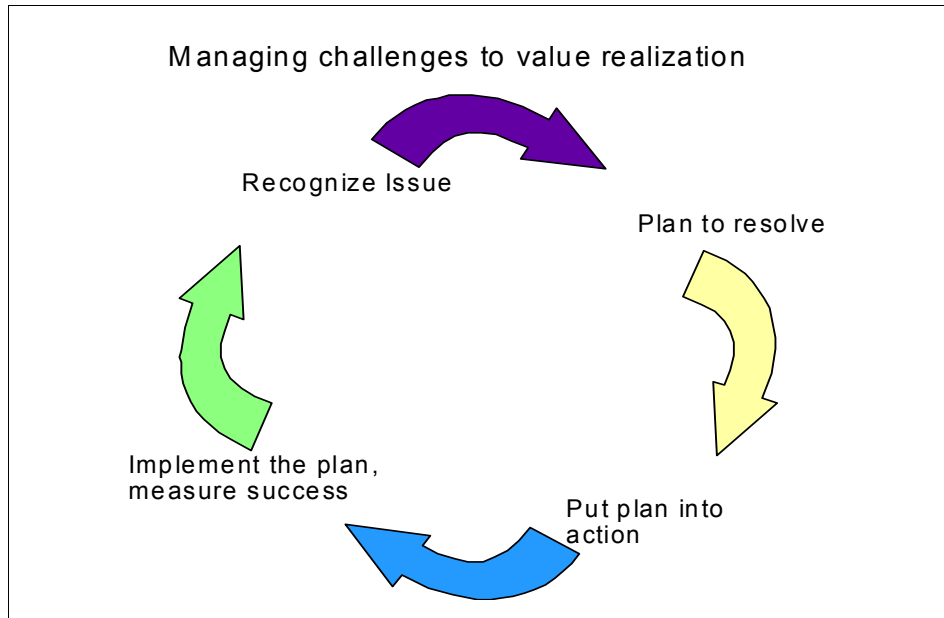


Figure 1-4 The approach to minimizing deployment challenges

Recognize the issues

As discussed in 1.3.1, “Deployment ownership” on page 4, the ownership of deployment activities in your organization belongs to you. It is your responsibility to monitor the progress and success of software deployment activities and to be watchful for factors that might disrupt the project or relationship. The IBM client team can provide support for product issue resolution. We can also help with monitoring for issues and communicating them with you as the owner. It is, therefore, important to maintain a good communications strategy among both teams.

Software issues can be categorized and classified in terms of severity and impact. When this is done, there are a number of well-known issues that typically surface:

- ▶ **Product support:** IBM Support might need to be engaged to resolve product problems or questions. See Chapter 8, “How to effectively engage with IBM customer support” on page 153.
- ▶ **Consumability:** Software consumability refers to both the ease of installation and the ease of use of one or more software products in a solution. The IBM Software Group is constantly working to improve the consumability of its middleware as the portfolio continues to expand and provide new functions, features, and solutions.

- ▶ Skills: You and IBM are working together to understand the level of skills that are available to implement the software solution. Certain skills gaps can be anticipated prior to the onset of the deployment project. These skills must be mitigated by appropriate means, such as skills transfer, education, training, and mentoring activities. Other gaps in skills might be encountered over the course of a project, for example, when a project change request is accepted. These gaps must be addressed immediately. Skills gaps and their resolution must be considered in the overall project planning and delivery of the solution.
- ▶ Project management: Plan your software deployment projects so that they are delivered with the correct resources. Effective project management is essential to project success, but not every software deployment project can or will have a professional project manager assigned. It is important for your Executive Business Sponsor, with the help of the IBM software teams, to determine early on whether adequate project management is available. Software projects succeed or fail according to the ability to establish and maintain adequate awareness of the following factors throughout the project life cycle:
 - Budget: Project management is always a trade-off between costs and time-to-value. What sources of funding exist and how can they be applied to the project? Does the project manager have access to funding? What are the requirements for funding the project, and what resources are available at no extra cost?
 - Resources: Well-managed projects can be run with a minimum of additional participants who merely compare status. Beyond additional funding, who are the project task members? Who are the vendor and integration partner product experts? Who is responsible? Who is accountable? Who needs to be consulted? What means of project status communications will be used? Who are the escalation points of contact within your organization and IBM if high severity issues are encountered?
 - Change requests: How will project changes be requested, assessed, reviewed, agreed upon, and rejected?
 - Scope creep: How will new or changed project goals and requirements are managed? How are out-of-scope project change requests going to be handled?

During the life cycle of the project, it is important to discuss checkpoints with project sponsors often. By doing this, you can determine whether expectations for the outcome increased, and therefore determine if the plan must be adjusted to deliver the additional expected results.

IBM client relationship representation: Most clients have IBM client relationship representation. The IBM client relationship representation is always interested in the project status of any IBM solution that can impact client satisfaction. When you become aware of any IBM software project issues that can impact your value, bring this to the attention of the IBM client representative or IBM software client architect as soon as possible.

Plan an issue resolution

Your organization already has processes for problem management, escalation, and resolution. However, it is important to recognize the external parties that might be able to assist in this process.

- ▶ **IBM client teams and architects:** IBM software client architects and other IBM employees can be key resources in resolving deployment issues. These resources often know your account and project well, and they can provide advice about the capabilities that IBM has available to assist you. Some issues, for example, are the result of a lack of understanding of our products, and in these cases the IBM client team can certainly help.
- ▶ **IBM Subscription and Support (S&S):** For technical problems with specific IBM products, engage the IBM S&S group. Your IT staff can work with IBM S&S and other IBM resources to resolve software issues.
- ▶ **IBM Services:** IBM can be engaged to deliver services for any part of your deployment or issue resolution process. More information about IBM Services offerings and capabilities are included in Chapter 5, “Using IBM Services to complement your skills and accelerate value” on page 113 and in Appendix C, “Services offerings” on page 203.
- ▶ **Other Clients:** IBM can connect you with other clients that might have experienced similar situations, allowing you to learn from them.
- ▶ **Business Partners:** IBM has a large number of Business Partners that deliver solutions using IBM software products. These Business Partners can be engaged in multiple phases of the software deployment life cycle. In certain cases, they are involved in the implementation and confirmation of value of certain deployment projects. The capabilities of Business Partners for issue resolution should not be overlooked, nor should the need to keep Business Partners aware of software issues that can impact a solution they are working on with the client. To contact one of the IBM Business Partners, speak with your IBM software representative.

Implement the plan

Realize that software projects are intended to support a business process, and delays in a project can cause considerable business impact. A key risk in the value realization of software projects is not implementing action plans when

issues arise. If an issue is identified that is hindering the deployment progress, it is essential that a plan be established and executed. Time delays before putting the plan into action might further compound the impact on the value to your business.

Implementing and measuring success

This book provides a guide for implementing your plan and measuring its success. See:

- ▶ “Accelerating software deployment using best practices” on page 47
- ▶ “Accelerating software deployment using tools and assets” on page 61
- ▶ “Building self-sufficiency using training” on page 129
- ▶ “Using IBM Services to complement your skills and accelerate value” on page 113
- ▶ “How to effectively engage with IBM customer support” on page 153
- ▶ “The value of maintaining IBM Software Subscription and Support (S&S)” on page 143

1.5 Conclusion

Effective software deployment is a mixture of many facets, as outlined in this chapter. Determining the value of each deployment project is more than considering the purchase price and implementation costs of the software. Rather, the value of software must be measured in its return to the business from the projects using that software.

Ensuring that you achieve the best value from your software is the result of superior planning, monitoring, and issue management. Taking a strategic approach to the relationship with your software vendor, and examining the value of the software in the context of business returns, is a best practice and gets the best results.



The IBM software deployment method

2.1 What this chapter is about

The extensive experience of IBM in software deployment has proven to be of great value to our customers. We designed deployment methods across industries, across platforms, for small business and global enterprises. Because of our background, we have the expertise to put processes into place to assist you in preparing and deploying software and in realizing business value.

This chapter describes the value our expertise can add to your overall deployment design and methods.

Software deployment is an iterative process, with each phase building on the previous phase, and adjustments made throughout the process. Visually, the process looks Figure 2-1.

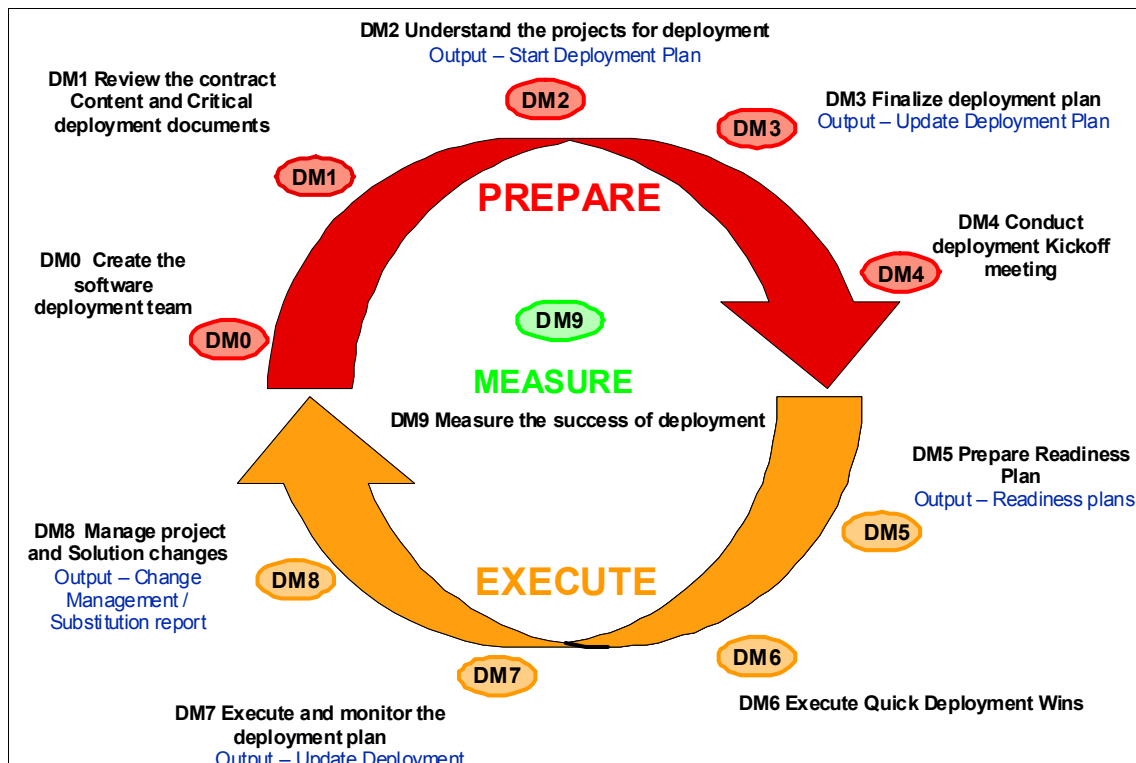


Figure 2-1 Broad depiction of the IBM software deployment method

What is the best way to execute the IBM software deployment method? There are lots of opinions and theories that can be accomplished by you, either

independently or with the experts at IBM who provide guidance on getting the most value for your software purchase.

Our experience with clients enable us to become keenly aware of oversights and pitfalls that can occur during the deployment process. We support your efforts to deploy efficiently, and we want to provide you with guidance in preventing negative impacts, such as:

- ▶ Improper or inadequate planning: This occurs when a deployment strategy is not mapped out. Early projects are not identified, and neither the implementation scope, nor the schedule, is considered.
- ▶ Lack of details: The transition plan from the purchasing team to the implementation team does not clearly articulate the expectations, roles, and responsibilities of the project and the team members.
- ▶ Planned deployment projects are not carried out on schedule: Software deployment is inherently complex because it involves multiple components and multiple teams within the organization. When project management tasks are applied reactively, the result is often delayed implementation because of challenges that arise late in the deployment process.

Oversights and errors result in less than optimal success of the software deployment project. They spawn situations where multiple projects are run in parallel without adequate infrastructure or projects that are run without proper planning for the efficient use of common components, tasks, resources, lessons, and so forth. This suggests that successful software deployment, both during the identification of deployment opportunities and during actual deployments, can best occur with significant planning. This is where you and IBM work together the best.

Overall, for software deployment to be successful, a proactive focus is required from both the client and IBM in the following areas:

- ▶ Qualifying the initial demands (projects)
- ▶ Identifying the core deployment team, representing you and IBM
- ▶ Developing a deployment strategy
- ▶ Defining additional projects that can use the purchased software to overcome challenges

To address these needs, IBM established a software deployment method. There are three foundational phases of the method:

- ▶ Prepare for deployment.
- ▶ Execute the deployment plan.
- ▶ Measure deployment success.

Within each of these phases, we defined the following ten processes:

- ▶ DM0 Define the software deployment team.
- ▶ DM1 Review the contract content and critical deployment documents.
- ▶ DM2 Understand the projects for deployment.
- ▶ DM3 Finalize the deployment plan.
- ▶ DM4 Conduct a deployment kickoff meeting.
- ▶ DM5 Prepare the Readiness Plan.
- ▶ DM6 Execute Quick Deployment Wins.
- ▶ DM7 Execute and monitor the deployment plan.
- ▶ DM8 Manage project and solution changes.
- ▶ DM9 Measure the success of the deployment.

Figure 2-2 graphically conveys these ten tasks.

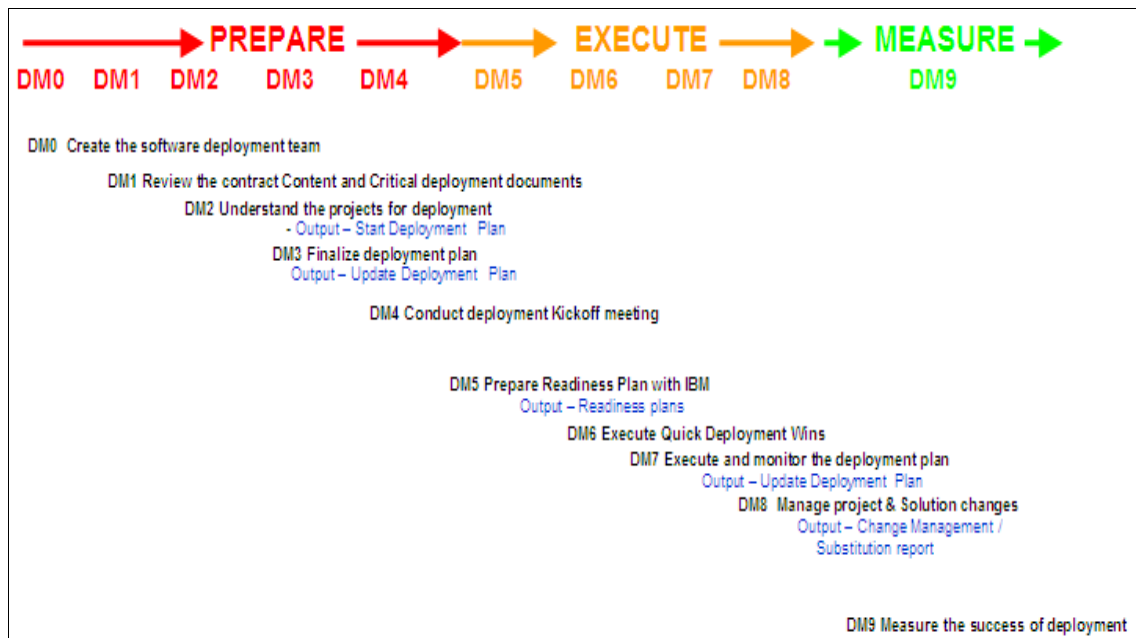


Figure 2-2 The ten individual tasks of the IBM software deployment method

2.2 Software deployment roles in a business partnership

The proper identification of roles and responsibilities enables the deployment method to be executed smoothly. When this is done, each team member knows what to do, how to do it, and when to begin, which is especially useful when

problems arise during deployment. This approach also leads to a significantly streamlined deployment process. The following list is an overview of the major roles in the process of software deployment, from the perspectives of the client, IBM, and third-party vendors.

- ▶ The client team:
 - Executive Business Sponsor
 - Program Manager
 - Procurement Officer
 - Other Stakeholders and Project Sponsors
 - Project Managers
 - Enterprise IT Architect
 - Project Members
 - Consultants
- ▶ The vendor team (for example, the IBM client team):
 - IBM Client Executive
 - IBM Software Client Leader
 - IBM Enterprise Architect
 - IBM Enterprise Deployment Manager
 - IBM Technical resources (IT Specialists)
- ▶ Third Party Roles and Responsibilities
 - Business Partner IT Architect

2.2.1 Client roles and responsibilities

In this section, we discuss the roles and responsibilities on the client side.

Executive business sponsor

The executive business sponsor is the key stakeholder for a software deployment initiative. This person is responsible for what business value organization receives from a certain contract or projects and is the most concerned with the realization of the value of the software assets that were invested in by the firm.

Program manager

The program manager role is the lead manager for a portfolio of projects that must deploy software. The program manager is a lead executive role. Multiple project managers and project teams might report to that person. Executive business sponsors and other stakeholders typically receive project updates from the program manager, and they can also communicate project change requests to the program manager for distribution to the individual project teams.

Procurement officer

The procurement officer works in a financial capacity and is responsible for software license purchases and the cost effectiveness of them.

Other stakeholders and project sponsors

Stakeholders other than the executive business sponsor have an interest in deployment projects, for example:

- ▶ A project that implements a portal to provide a new face to clients might be close to the goals of the marketing manager.
- ▶ A project that delivers improved reporting and business analytics can have relevance to an executive in charge of risk management.

The IBM client team works with the client to determine the relevant stakeholders for each project or set of projects, and they make sure their interests are clearly communicated to the program and project managers.

Project managers

The project manager is tasked with successfully implementing project deliverables that realize the business goals. This role can best be fulfilled by a professionally certified project manager or project executive. The project manager might individually negotiate the budget and the time frame for deliverables. That person might also provide a structure for the necessary tasks and task assignments.

Enterprise IT architect

Your enterprise IT architect can play multiple roles in deployment projects. Your enterprise IT architect can be the lead solution architect for a solution domain, or that person might play a broader role in defining enterprise IT technology standards.

Your enterprise IT architect typically has experience not only in enterprise architecture but also in the skills necessary to your industry. That person might also have other specialty skills and experiences that are relevant to the solution design. Your enterprise IT architect has the most current understanding of technology standards and best practices in use in your organization.

The IBM client team keeps the enterprise IT architects apprised of new developments in IBM technologies, such as acquisitions and new product offerings, so that our combined efforts provide the return that we are all looking for.

Project team members

The project team is typically selected by the project manager and consists of subject matter experts (SMEs) who have the specialty skills and experiences necessary to successfully implement the deliverables.

Consultants

Consultants are hired by your organization to provide a number of roles. Generally speaking, the consultants are most concerned with the business goals and the strategy for their realization. They can also provide technical guidance and feedback for the projects.

2.2.2 IBM roles and responsibilities

In this section, we discuss the roles and responsibilities of members of the IBM client team.

IBM client executive

The IBM client executive is the lead from the IBM side who owns the relationship between IBM and your organization. There might be a large IBM client team for a globally integrated account with IBM client executives in multiple geographies and for each line of business. Alternatively, the IBM client team can be smaller and focused on supporting only certain client locations. In all cases, the IBM client executive has access to the full resources of IBM to help you realize your business goals.

IBM software client leader

The IBM software client leader, previously known as the software account manager, is responsible for all IBM software group-based solution sales in your organization. This person holds the primary responsibility for your satisfaction with solutions from the IBM software group.

IBM architect

This role is known by IBM account teams as a software client architect or an industry architect. IBM client teams typically have a software client architect and a client technical advisor assigned. The software client architect supports the client by promoting the optimal use of deployment best practices and IBM products and technologies as they relate to the project. When necessary, this role can be extended to methodology and governance support.

IBM enterprise deployment manager

This role has been known as the ELA deployment manager, enterprise deployment manager, enterprise deployment architect, and the accelerated value

leader. For several of our larger deployment clients, the IBM enterprise deployment manager is 100% dedicated to the successful deployment of IBM software group products with one organization. The IBM enterprise deployment manager has access to IBM resources to help clients deploy our products. Several of the resources are the IBM Software Support Center, IBM Passport Advantage®, IBM Software Group lab resources, IBM proofs of technology (PoTs), and IBM presales and delivery IBM Software Group brand technical IT specialists.

An IBM enterprise deployment manager is a facilitator, program manager, and customer advocate. That person represents the IBM Software Group to the client. The primary role is to ensure the client's success, satisfaction, and self-sufficiency within the scope of the enterprise license agreement. The IBM enterprise deployment manager ensures that IBM software resources, support, and business professionals who work with the client work together collaboratively and in a coordinated manner so that software solutions are successfully designed and deployed with minimal risk and achievement of both business and technical objectives of the various stakeholders. This collaboration ensures the practical application of the IBM enterprise license agreement deployment methodology and process, design methods, patterns, and best practices in client initiatives.

The IBM enterprise deployment manager will:

- ▶ Work directly with a dedicated customer sponsor to achieve success and value from their enterprise license agreement investment
- ▶ Coordinate and focus IBM resources necessary to execute the customer's vision and enable product installation and usage to achieve customer satisfaction, success, and self-sufficiency
- ▶ Ensure the successful deployment of IBM Software for projects that are using the IBM software stack
- ▶ Work on-site with the customer's staff, and provide a single point of contact for fulfillment of the customer's investment in the enterprise license agreement
- ▶ Working directly with customer executives to develop their business goals as they relate to the enterprise license agreement
- ▶ Be a member of relevant IT committees and boards related to Customer use of IBM software
- ▶ Monitor and escalating critical issues to IBM executives and managing resolution
- ▶ Assessing and recommending customer education, training skills requirements, and the organizational changes that are necessary for customer success through undertaking readiness reviews

- ▶ Report on Software utilization and success
- ▶ Provide ongoing enablement around Software Technology updates and capability roadmaps
- ▶ Advise on IBM Worldwide Software Deployment Best Practices
- ▶ Provide guidance and assistance to Customer as required in relation to and during the roll-out and deployment of software

IBM IT specialists

The IBM IT specialist is a client-facing role that is defined for each of the major IBM Software Group product specialties or brands (WebSphere, Information Management, Enterprise Content Management, Commerce, Enterprise Market Management, Lotus®, Rational® and Tivoli®). The role of the IT specialist is typically presales but can include certain kinds of support because the IT specialist might have the best insight into the background of a particular issue that must be resolved for a successful deployment. Also, the IT specialist might be involved in formulating evaluation strategies for IBM Software Group products and assist new project team members with technical overviews of products.

2.2.3 Third-party roles and responsibilities

In this section, we discuss the roles and responsibilities of third parties.

Business partner architect

IBM developed working relationships with a multitude of qualified IBM Software Group solution business partners. These business partners can be retained to work directly with IBM clients to successfully deploy software-intensive solutions and help realize the value of those assets. Very often, an IBM client executive, client technical advisor, software client lead, software brand representative, or software IT architect knows of qualified business partners that can assist clients with their software deployment projects. The Business Partner architect is typically assigned to the project and works directly with your project team to understand the goals and requirements and put the solution design together. IBM Business Partners receive the same training and access to information as do employees of IBM.

2.3 Software deployment work products

When you follow the recommended software deployment method in this book, four documents are generated in the planning of a software deployment project:

- ▶ Software deployment plan

- ▶ Readiness plan or plans
- ▶ Software deployment tracking report
- ▶ Change management or substitution report (this can be included in the Software Deployment Tracking report)

For your projects, more than one of these documents can be used based on the needs of the project.

2.3.1 Software deployment plan

The Software Deployment Plan provides a foundation for all other deliverables (for example, the Software Deployment Readiness Plan and the Software Deployment Tracking Report). This section contains an *outline* of the major components of this deliverable:

- ▶ The software deployment plan defines:
 - How and when the software is included in the contract (or on the shelf from previous contracts)
 - How and when the software will be deployed
 - Who is responsible for each project
 - The success criteria for each project
 - The success criteria for the overall contract
- ▶ The software deployment plan is updated at several points during the project:
 - During the creation of the initial plan
 - During software deployment method tasks DM2, DM3, DM4, and DM7
- ▶ The content of the software deployment plan includes:
 - General information related to software deployment
 - An Enterprise License Agreement, the foundational document for the Software Deployment Plan (where applicable)
 - Information that is specific to each project
- ▶ Overall contract:
 - Executive Business Sponsor
 - Contract success criteria or expected value realization
 - Projects list (on which the contract is based)
 - Project plan or roadmap
- ▶ Project information (for each project):
 - Expected start date and end date

- Identification of the Project Lead and Project Sponsor
- Project description
- Success criteria and critical success factors
- List of software products assigned to this project and quantity (optional)
- Project risks (optional)
- Methodology (optional)

2.3.2 Readiness plan

The Readiness Plan is designed to facilitate communications and deployment planning between you and IBM. A well-executed Readiness Plan proactively addresses implementation issues and, in turn, promotes enhanced customer satisfaction with the IBM solution.

The Readiness Plan is a set of processes and work products that are designed to accomplish tasks, including our plan to:

- ▶ Ensure that your and our expectations are aligned
- ▶ Identify issues and risks and set proper courses of action
- ▶ Evaluate the software implementation skills you have in-house
- ▶ Identify an education roadmap to address gaps in available skills in-house
- ▶ Assign responsibilities and ownership of implementation tasks
- ▶ Provide guidance in how to engage effectively with IBM support

The Readiness Plan is particularly important for projects that have critical requirements, such as a significant scope, enterprise-wide visibility, first product drop installation, or a service provider engagement. It is prepared by you and the IBM technical team jointly and is outlined as follows:

- ▶ Communication plan:
 - Communications: Identifies the stakeholders and sponsor for internal and external communications
 - Project summary: Identifies the responsibilities and high level project milestones
- ▶ Implementation Plan:
 - Statement of Work (SoW)
 - Project plan
 - Responsibilities
- ▶ Operations Plan:
 - Roles
 - Backup and recovery, disaster recovery plan
 - Help desk
 - Systems management, availability management, logging, monitoring

- ▶ Support plan:
 - Problem support
 - How to contact IBM
 - How to identify yourself and the company
 - Environment description: Platform versions, products used and versions, architecture, and so on
 - Problem description: Error code, problem description, and so on
 - IBM services implementation support needs
 - Technical documentation: Technical documentation for this project
- ▶ Education and skills plan:
 - Skills assessment, roles (implementation and operational), and education justification
 - Education plan: courses, resources, and services available for this project
 - Leads to services identification and justification
 - Education offerings available by the local training team
 - Risk, dependencies, assumptions, and constraints

2.3.3 Software deployment tracking report

The Software Deployment Tracking Report is a deployment monitoring tool that primarily covers:

- ▶ IBM software included in the contract
- ▶ Projects that have been considered during the preparation of a contract
- ▶ Project leader for each project
- ▶ Expected project start and end dates
- ▶ IBM software planned for each project
- ▶ Status of a project and IBM software deployment status
- ▶ Status of purchased software licenses (on-the-shelf, assigned to a project, in development, pilot, or production)
- ▶ Contract history (for example, software substitutions) to understand changes after the initial contract
- ▶ A sample Software Deployment Tracking Report is shown in Figure 2-3 on page 31

commercial conditions, but if the solutions are not yet well defined, a certain degree of flexibility in a contract is recommended to avoid the need for software on the shelf.

The change management process must be comprehensive and clearly documented. Each change must require a valid reason and a clearly defined decision and impact of the decision. It can be a manual process, or it can be supported by process automation tools, compliance, and impact management.

2.4 The software deployment method

Figure 2-4 illustrates the overall deployment method.

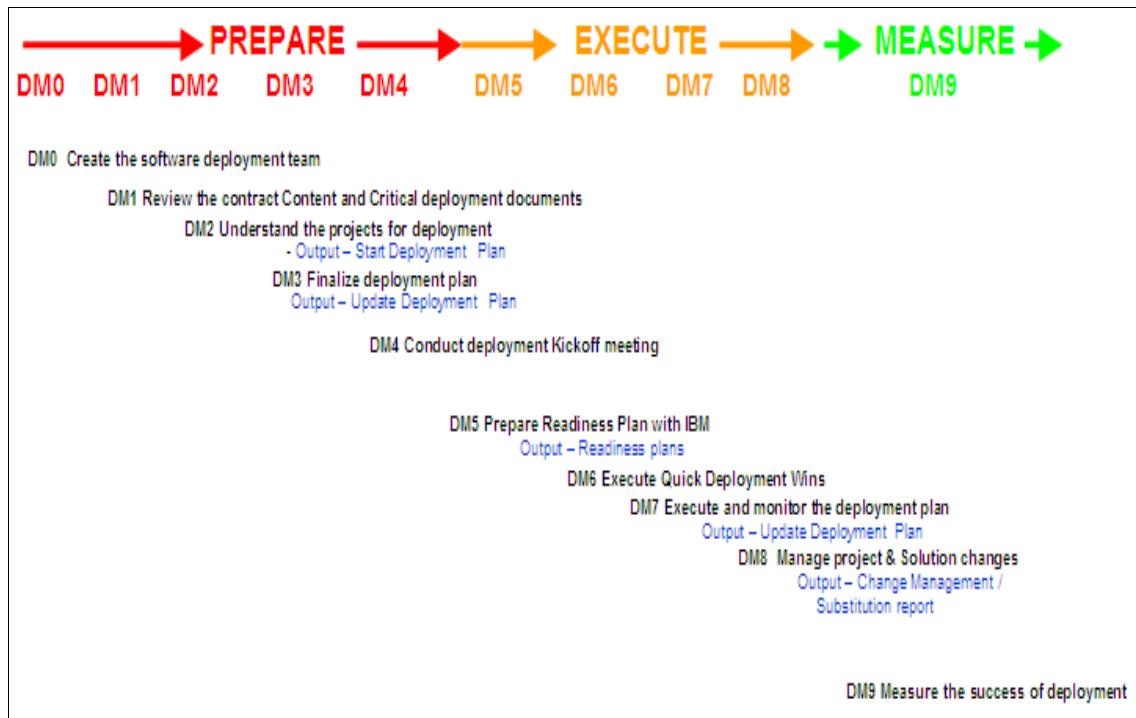


Figure 2-4 Depiction of the overall software deployment method

In this section, we provide a full picture of the IBM software deployment method. We define each phase, the tasks within each phase, the roles and responsibilities necessary to carry out each task, and the input and output of each phase.

2.4.1 Prepare for deployment

The Prepare phase encompasses tasks DM0 through and including DM4.

DM0: Create the software deployment team

The purpose of this task is to:

- ▶ Form the software deployment team that will plan and lead the deployment.
- ▶ Obtain commitment from each member and their managers for serving on the team.
- ▶ Agree on the roles and responsibilities of team members.

Figure 2-5 depicts this task in relation to the overall software deployment method.



Figure 2-5 Task DM0 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: No specific role
- ▶ Program Manager: Leads this task, defines the team and the roles in the team, approaches managers of deployment team members, and obtains resource commitments
- ▶ Procurement Officer: Agrees on a role and participates
- ▶ Project Sponsor: Agrees on a role and participates
- ▶ Project Manager: Agrees on a role and participates
- ▶ Enterprise IT Architect: Agrees on a role and participates
- ▶ Project Members: Agrees on a role and participates
- ▶ IBM Client Executive: Agrees on a role and participates
- ▶ IBM Enterprise Deployment Manager: Agrees on a role and participates
- ▶ IBM Software Client Architect: Agrees on a role and participates
- ▶ IBM IT technical resources (IT Specialists): Agree on a role and participate

Input and output products

Input and output products in this task are:

- ▶ Input work products: None
- ▶ Output work products: None

DM1: Review the contract content and other critical deployment documents

When the software deployment team is defined, the team must learn about the contract content and other items that might influence the deployment. The goal for this task is to understand the contract content, including the terms and conditions:

- ▶ Products and quantities included in the contract
- ▶ Possible replacement of products with others and under what conditions
- ▶ Possible extension of the content under the same conditions
- ▶ Services that will be included
- ▶ “Open budget” (value basket)¹ included in the contract

Other documents must be reviewed that can have an impact on deployment. For example, a previous deployment plan for existing software on the shelf might need reviewing, as does Solution Review documents (also known as *Technical and Delivery Assessment* documents), and so on. The Executive Business Sponsor at the client site must be identified. It is also important for IBM to:

- ▶ Discuss and understand your buying decisions
- ▶ Obtain a preliminary view of how you define success
- ▶ Determine what value you expect to gain from the partnership

Figure 2-6 depicts this task in relation to the overall software deployment method.



Figure 2-6 Task DM1 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: No specific role

¹ “Value basket” is terminology used in an enterprise license agreement that represents an available budget which can be used for new product purchases or services under the predefined Terms and Conditions of the agreement.

- ▶ Program Manager: Collects and manages all important documents for a successful deployment
- ▶ Others: Provide the Program Manager with documents; can impact software deployment and enterprise license agreement

Input and output products

The input and output products in this task are:

- ▶ Input products: Contract and other deployment-related documents
- ▶ Output products: None

DM2: Understand the projects for deployment

In this task, the software deployment team starts developing a high-level plan in large chunks that can be used to illustrate and justify the software purchase, which includes:

- ▶ Identifying deployment projects and mapping them to purchased software; identifying demand gaps
- ▶ Discussing your capabilities, software deployment best practices, and the Software Deployment Readiness Plan
- ▶ Identifying potential solution review requirements
- ▶ Using existing enterprise architecture activities or reworking tasks to begin developing an enterprise architecture
- ▶ Determining potential services requirements

Figure 2-7 depicts this task in relation to the overall software deployment method.



Figure 2-7 Task DM2 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: No specific role
- ▶ Program Manager: Collects all information and documents it in a draft Software Deployment Plan
- ▶ Procurement Officer: No specific role
- ▶ Project Sponsor: Provides information about specific projects
- ▶ Project Manager: Provides information about specific projects

- ▶ Enterprise IT Architect: Provides information about projects
- ▶ Project Members: No specific role
- ▶ IBM Client Executive: No specific role
- ▶ IBM Enterprise Deployment Manager: No specific role
- ▶ IBM Software Client Architect: No specific role
- ▶ IBM IT Technical resources (IT Specialists): No specific role

Input and output products

Input and output products in this task are:

- ▶ Input products: Contract
- ▶ Output products: Software Deployment Plan (draft)

DM3: Finalize the software deployment plan

The software deployment plan describes the requirements of each stakeholder and deployment project lead. With these requirements incorporated into the plan, it is then finalized, and the details of the kick-off meeting are confirmed.

To assess the requirements of stakeholders and project leads, the following topics are discussed, generally with each person individually:

- ▶ The strategy to use for addressing open issues with the software deployment best practices and Software Deployment Readiness Plan
- ▶ Ensure that any areas of concern that were not covered in the selling process are addressed
- ▶ Confirm or update the list of key stakeholders who jointly own software deployment with the executive business sponsor
- ▶ Complete planning for deployment kick-off meeting

Figure 2-8 depicts this task in relation to the overall software deployment method.



Figure 2-8 Task DM3 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: No specific role

- ▶ Program Manager: Collects all information and documents it in a draft Software Deployment Plan
- ▶ Procurement Officer: No specific role
- ▶ Project Sponsor: Provides information about specific project
- ▶ Project Manager: Provides information about specific project
- ▶ Enterprise IT Architect: Provides information about projects
- ▶ Project Members: No specific role
- ▶ IBM Client Executive: No specific role
- ▶ IBM Enterprise Deployment Manager: No specific role
- ▶ IBM Software Client Architect: No specific role
- ▶ IBM IT Technical resources (IT Specialists): No specific role

Input and output products

The input and output products in this task are:

- ▶ Input products: Software deployment plan
- ▶ Output products: Software deployment plan (final or updated)

DM4: Conduct a deployment kickoff meeting

When a software deployment plan is completed, a kickoff meeting is organized for your Executive Business Sponsor, the key stakeholders, and the IBM software deployment team. The purpose of this meeting is for all members to gain a common understanding of the Software Deployment Plan, the goals that must be achieved with the business partnership, and the criteria for success. The topics that are discussed at this meeting are:

- ▶ The vision for deployment, presented by your Executive Business Sponsor.
- ▶ A high-level Software Deployment Plan, focusing on quick deployment win projects.
- ▶ Product overviews and how each product links to the software deployment strategy.
- ▶ Evangelizing and agreeing upon the Software Deployment Readiness Plan or Plans (see “Readiness plan” on page 29), including business goals, your communication process, training and support plans, and plans for backup and disaster recovery, systems management, migration, rollout, service level agreements, and dependencies.

The transition from sales close to deployment can present difficulties because handoffs and assumptions cannot yet be communicated, and team players might be phasing out as others are phasing in. The IBM Software client team can help

you to put a readiness plan into place that engages the appropriate client team members so that the momentum of a successful sale carries over to deployment. By agreeing on the contents of the Software Deployment Readiness Plan and investing in the components of the kickoff meeting, your investment will pay excellent dividends as you deploy. Your preparation will:

- ▶ Ensure that you have the right set of expectations to successfully implement the proposed solution
- ▶ Ensure the IT system lies within the “art of the possible”
- ▶ Identify issues and risks to be escalated

Figure 2-9 depicts this task in relation to the overall software deployment method.

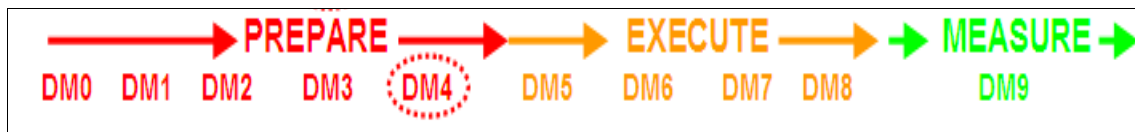


Figure 2-9 Task DM4 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: Participates in the meeting
- ▶ Program Manager: Organizes the kickoff meeting and supports meeting preparation
- ▶ Procurement Officer: Supports the meeting preparation and participates
- ▶ Project Sponsor: Supports the meeting preparation and participates
- ▶ Project Manager: Supports the meeting preparation and participates
- ▶ Enterprise IT Architect: Supports the meeting preparation and participates
- ▶ Project Members: Participate in the meeting
- ▶ IBM Client Executive: Participates in the meeting
- ▶ IBM Enterprise Deployment Manager: Participates in the meeting
- ▶ IBM Software Client Architect: Supports the meeting preparation and participates
- ▶ IBM IT Technical resources (IT Specialists): Participate in the meeting

Input and output products

The input and output products in this task are:

- ▶ Input products: Software deployment plan
- ▶ Output products: Software deployment plan (updated), Software Deployment Tracking Report (initial)

2.4.2 Execute the deployment plan

The Execute phase encompasses tasks DM5 through and including DM8.

DM5: Prepare and present the software deployment readiness plan

The IBM software deployment team prepares and presents the Software Deployment Readiness Plan or Plans based on the IBM products that are new to your organization. This supports your initiative and ensures that you are prepared for upcoming projects.

Figure 2-10 depicts this task in relation to the overall software deployment method.

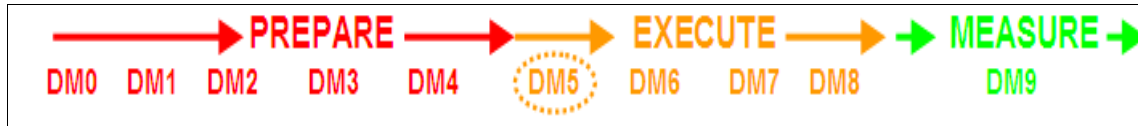


Figure 2-10 Task DM5 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: No specific role
- ▶ Program Manager: Leads the preparation of the Software Deployment Readiness Plan
- ▶ Procurement Officer: No specific role
- ▶ Project Sponsor: No specific role
- ▶ Project Manager: Supports the preparation of, and receives, the Software Deployment Readiness Plan
- ▶ Enterprise IT Architect: Supports the preparation of, and receives, the Software Deployment Readiness Plan
- ▶ Project Members: Receives the Software Deployment Readiness Plan

- ▶ IBM Client Executive: No specific role
- ▶ IBM Enterprise Deployment Manager: Supports the preparation of the Software Deployment Readiness Plan
- ▶ IBM Software Client Architect: Supports the preparation of, and receives, the Software Deployment Readiness Plan, and prepares and executes the Software Deployment Readiness Plan
- ▶ IBM IT Technical resources (IT Specialists): Prepare and execute the Software Deployment Readiness Plan

Input and output products

The input and output products in this task are:

- ▶ Input products: None
- ▶ Output products: Software Deployment Readiness Plan

DM6: Execute quick deployment wins

This important task is to execute projects that are what we call *quick deployment wins*, as discussed in the Software Deployment Plan. A quick deployment win is a demonstration of the capabilities and flexibilities of our deployment methods over time. For example, you and IBM might define a 60 to 90-day project using our products and processes to demonstrate our deployment methods. The immediate objective here is to instill confidence in your organization about our products and processes. As an overall objective, we want to produce a confidence level in you, based on your seeing, first-hand, that our methods are credible, reliable, and successful.

The key activities in this task are:

- ▶ Execute quick deployment win projects
- ▶ Conduct regular meetings with your project owners
- ▶ Monitor the resolution of software deployment best practices and Software Deployment Readiness Plan shortfalls

Figure 2-11 depicts this task in relation to the overall software deployment method.

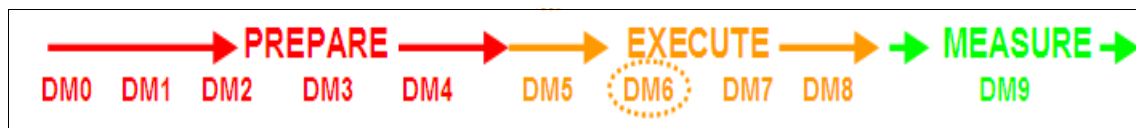


Figure 2-11 Task DM6 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: No specific role
- ▶ Program Manager: Leads the preparation of the Software Deployment Readiness Plan
- ▶ Procurement Officer: No specific role
- ▶ Project Sponsor: Supports and monitors the success of the project
- ▶ Project Manager: Leads the project
- ▶ Enterprise IT Architect: Provides direction and enforces standards
- ▶ Project Members: Participate in implementing a project
- ▶ IBM Client Executive: Validates success and satisfaction
- ▶ IBM Enterprise Deployment Manager: Supports the project
- ▶ IBM Software Client Architect: Supports the project
- ▶ IBM IT Technical resources (IT Specialists) Support the project

Input and output products

The input and output products in this task are:

- ▶ Input products: List of selected projects for deployment quick wins and the architecture and Statement of Work (SoW) for those projects
- ▶ Output products: Software Deployment Tracking Report

DM7: Execute and monitor the deployment plan

This is the longest task and, in reality, does not end because the status of the shelf-ware from the initial contract can be used in a project from the next contract. The purpose of this task is to help achieve the goals of the contract and to receive maximum value from the IBM software and hardware purchase.

Monitoring the progress of the deployment along with the deployment plan must occur regularly, perhaps monthly, or as defined. IBM support is involved in this too in the event that there are issues or potential issues. If there are changes to the project plan, project content, or owners, immediately update the software deployment plan accordingly. The success of software and hardware deployment also depends on technical and other issues that are faced by the implementation team during the course of the project. Therefore, the software deployment team must fully support the resolution of project issues.

When starting a new project, it is important to understand what will occur if:

- ▶ A solution review needs to be executed
- ▶ An additional Software Deployment Readiness Plan needs to be prepared based on project content changes

When a project is completed, it must be ensured and verified that all project goals are met, at which time the Software Tracking Report is updated.

Figure 2-12 depicts this task in relation to the overall software deployment method.



Figure 2-12 Task DM7 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: Supports and drives any escalation and supports problem resolution during the project
- ▶ Program Manager: Monitors the software deployment progress against the plan, identifies needs, and leads the solution review and the Software Deployment Readiness Plan. Leads (together with a Project Manager and the IBM Enterprise Deployment Manager) problem resolution of technical and other issues
- ▶ Procurement Officer: Controls license use
- ▶ Project Sponsor: Supports and monitors project success
- ▶ Project Manager: Leads projects and manages problem resolution
- ▶ Enterprise IT Architect: Provides direction and enforces standards
- ▶ Project Members: Perform project implementation, if agreed to with the client, and provides input on deployment progress to the Deployment Technical Lead, where applicable
- ▶ IBM Client Executive: Supports and drives any escalation and supports problem resolution during the project
- ▶ IBM Enterprise Deployment Manager: Leads solution review and the Software Deployment Readiness Plan. Co-leads (together with a Program Manager and Project Manager) problem resolution of technical and other issues

- ▶ IBM Software Client Architect: Supports the project
- ▶ IBM IT Technical resources (IT Specialists): Supports the project

Input and output products

The input and output products in this task are:

- ▶ Input products: Software deployment plan, Software Deployment Tracking Report
- ▶ Output products: Software deployment plan (updated), Software Deployment Tracking Report (updated)

DM8: Manage project and solution changes

Multiple changes can occur during project execution, which can influence project priorities and the utilization of purchased hardware and software licenses. Any change requires impact analysis, an investment protection plan for purchased hardware and software, a clear definition of additional needs, and an update to the software deployment plan.

Figure 2-13 depicts this task in relation to the overall software deployment method.

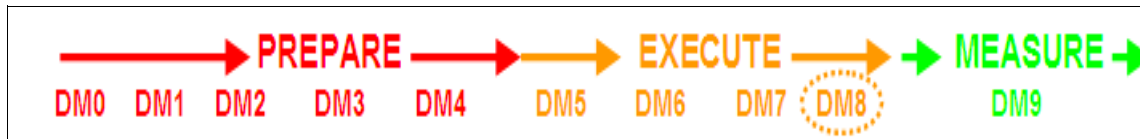


Figure 2-13 Task DM8 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: No specific role
- ▶ Program Manager: Controls and documents changes
- ▶ Procurement Officer: Controls license use
- ▶ Project Sponsor: No specific role
- ▶ Project Manager: Manages changes and the impact of changes on the project and overall costs
- ▶ Enterprise IT Architect: Provides direction and enforces standards; updates and manages the Enterprise Architecture
- ▶ Project Members: Provide suggestions
- ▶ IBM Client Executive: Supports changes with commercial conditions

- ▶ IBM Enterprise Deployment Manager: Manages the IBM client team to provide recommendations for potential changes
- ▶ IBM Software Client Architect: Supports the project and provides recommendations
- ▶ IBM IT Technical resources (IT Specialists): Support the project and provide recommendations

Input and output products

The input and output products in this task are:

- ▶ Input work products: None
- ▶ Output work products: Software deployment plan (updated), Software Deployment Tracking Report (updated), Change Management or Substitution report

2.4.3 Measure deployment success

In this section, we discuss the Measure phase, which contains one major task.

DM9: Measure deployment success

Software deployment success must be monitored, measured, and communicated to the stakeholders frequently. Therefore, the topic of how return on investment (ROI) is realized must be determined. Software deployment goes beyond known projects that are defined in the selling cycle. It is important that the executive business sponsors and stakeholders realize value, which, in turn, increases business.

Figure 2-14 depicts this task in relation to the overall software deployment method.



Figure 2-14 Task DM9 in relation to the overall software deployment method

Roles and responsibilities

The roles and responsibilities in this task are:

- ▶ Executive Business Sponsor: Validates the success of the deployment
- ▶ Program Manager: Validates the success of the deployment
- ▶ Procurement Officer: Controls license use of shelfware

- ▶ Project Sponsor: Validates project success
- ▶ Project Manager: Provides input to determine success of the project
- ▶ Enterprise IT Architect: Monitors Enterprise Architecture key performance indicators (KPIs)
- ▶ Project Members: Provide input to determine success of the project
- ▶ IBM Client Executive: Validates success of the deployment
- ▶ IBM Enterprise Deployment Manager: Provides input to determine success of the project
- ▶ IBM Software Client Architect: Provides input to determine success of the project
- ▶ IBM IT Technical resources (IT Specialists): Provide input to determine success of the project

Input and output products

The input and output products in this task are:

- ▶ Input products: Software deployment plan
- ▶ Output products: Value Realization document



Accelerating software deployment using best practices

3.1 What this chapter is about

This chapter describes the best practices for software deployment that IBM uses. It complements “The software deployment method” on page 32. The concept of best practices is complemented by other software deployment offerings that IBM provides, such as engaging services teams, conducting software deployment workshops, conducting readiness plans, and much more, as illustrated in this book.

Our best practices were tested over time and have proven, historically, to be successful in a variety of industries and organizational structures. When adhered to consistently throughout the process of software deployment, value realization was achieved.

This chapter illustrates the successful application of these best practices by providing case studies, some fictitious and some based upon actual events. For those best practices that are based on actual events, the names of the organizations are not included for reasons of confidentiality. In all case studies in this chapter, the clients used the Software Deployment Method discussed in 2.4, “The software deployment method” on page 32 in addition to the software deployment best practices that we discuss in this chapter.

3.1.1 Case study

HIC Corporation (HIC) is an insurance company that focuses on a wide range of insurance products. Their operating strategy is to provide the highest value to consumers through multiple channels. In the current fiscal year, HIC reported revenue of over USD40 billion. HIC made an enterprise-wide purchase of software from IBM. Early in the deployment phase, they recognized the need for a structured method to deploy their software and turned to IBM for assistance.

Soon after signing an Enterprise License Agreement (ELA) with IBM, HIC recognized the need for a single owner for the ELA. The responsibility of the owner was to ensure the successful deployment of the software purchased in the ELA. The Chief Information Officer (CIO) of the organization placed the HIC Vice President of Architecture for Technical Services in the role of Executive Business Sponsor (ESB).

The first step was to identify a team of IT managers to assist with identifying a deployment strategy for HIC. IBM already had sales and technical sales representatives in place. These two groups, when combined, created the Software Deployment Team (see “DM0: Create the software deployment team” on page 33). Functioning as one team, HIC and IBM focused on ensuring the success of the ELA.

The Software Deployment Team quickly defined a high-level deployment plan that identified a long-term view of deployment direction. The Software Deployment Team also defined quick deployment wins, five products from the ELA that deploy immediately. These quick wins were to be delivered in the near term to build confidence and generate excitement about the technology and solutions, while supporting business objectives.

The leader of the ELA deployment team at HIC identified solution and product captains for the helm of each quick deployment win. Their responsibilities were to define and execute a realistic plan to use the software in at least one pilot project and to build the infrastructure to support the use of the quick deployment win software in future projects. In addition, they were to communicate and market these successes within HIC Technical Services.

To facilitate this communication and marketing effort, the ELA deployment team at HIC devised an event entitled Enterprise Agreement Land (EA Land). EA Land was organized to allow the product and solution captains to highlight their team's achievements during the first eight months of the ELA deployment process. Along with product tables and two demo rooms that were staffed by HIC and vendor representatives, process tables were included, such as quality assurance, information architecture, and solution services. This ensured that the excitement about the products in the ELA generated by EA Land did not overwhelm the process of deployment at HIC. Over 1,200 HIC IT professionals were invited to this event.

Because HIC focused on planning, communication, and several other principles that we highlight in this chapter, several early successes from their ELA deployment efforts were achieved. Along the way, as part of their enterprise architecture initiative, they also successfully designed and implemented a process to help ensure successful software deployments in the future. This process was made formal by the governance body they set up.

IBM is involved with deployments conducted with partners from multiple industries, globally. The IBM best practices discussed in this chapter are proven to ensure the highest probability of success. We saw what works and learned what fails amid the variables in software deployment today.

The authors of this Redbooks publication used the software deployment best practices discussed herein with multiple customers. For this publication, we tailored these best practices to IT organizations. You are invited to use and customize these best practice techniques based on the individual requirements of your organization.

3.2 Best practices

We begin with the primary best practices that form the framework of our approach. These best practices are suitable for implementation in any software deployment process because they address the focal business challenges of successful, efficient software deployment. These primary best practices are as follows, in the order in which they are generally carried out:

1. Identify the executive business sponsor and stakeholders.
2. Define a governance structure for the deployment process.
3. Centralize software fulfillment and license management tools.
4. Engage consulting and implementation services.
5. Define your return on investment (ROI) strategy and time to value.
6. Conduct workshops to assure deployment readiness:
 - a. Conduct a deployment kickoff immediately after the contract is signed.
 - b. Conduct a software deployment workshop.
7. Identify strong project and resource management.
8. Commit to self-sufficiency.
9. Communicate and market the vision.

Many of the best practices outlined in this chapter are integrated into the process for software deployment detailed in 2.4, “The software deployment method” on page 32. However, even if you are not following the proposed process, consider using these practices to provide the best opportunity for achieving value from your software. The importance of using and adhering to best practices is a fundamental part of the process of software deployment, which your organization can do independently or in concert with the IBM client team.

3.2.1 Identifying an executive business sponsor and stakeholders

The achievement of your business goals is the foremost objective. One avenue toward meeting this objective is the identification of an executive business sponsor at the start of the project, who serves as the central point of contact from your side. For the executive business sponsor, the ability to clearly communicate the needs of each team is crucial. Ownership can be at several levels, for example, there might be a high-level executive business sponsor and several tiers of sponsorship beneath them.

IBM wants to build a strong partnership with you for the duration of this project and beyond, and so communication between your team and IBM is a first priority. We identify a person on our team who has the same responsibility from our

perspective. Let us discuss the responsibilities of the executive business sponsor in more detail.

In most organizations, ownership of overall deployment success can be at several levels, for example, an IT might delegate additional sponsorship to your direct reports. Another IT executive might delegate sub-sponsorship to separate lines of business. In most modern businesses with so much going on each day, these changes are not communicated to all who need to know. The executive business sponsor serves this need. No matter what processes are put into place or changes initiated, the executive business sponsor is the key contact.

It is with the executive business sponsor that deployment objectives are defined early on and with whom every success is expected and celebrated.

How do you go about selecting the most qualified person to represent your team? To demonstrate the importance of this task, we share our experiences with teams that did not follow the recommendation to identify an executive business sponsor. They usually find that their software deployment team cannot adequately control projects or manage changes. Similarly, we found that teams who do identify an executive business sponsor oftentimes identify a person without the necessary skills. If this occurs, be confident that we are in this business partnership to assist you, to work together with the common goal of making the team as efficient as possible. The executive business sponsor and the entire client team must have support contact numbers available. You can work with your IBM contact to develop a support roadmap, by brand.

Case study

The Chief Information Officer (CIO) of a major insurance company in the United States personally assumes ownership of their software agreement to drive their deployment projects. That person delegates the day-to-day responsibilities to various project managers on the staff and maintains involvement with monthly status updates. Any inhibitors to their success are quickly dealt with so as not to impact their overall plans. Not only does the involvement of the CIO help to avoid surprises, it also ensures that the vision is continuously delivered and reinforced. Software packages, sometimes for a multitude of business projects, must be received, logged, distributed, and tracked. We give you the option to receive software from CDs or download them directly from our Passport Advantage online website. This process is usually continuous until the software entitlements expire.

Over time, the individuals or groups who need to receive software will likely change. It is important for you to initiate a centralized software fulfillment process as early as possible in the deployment life cycle. The key element of this process is having one person in your company who is responsible for receiving and downloading all software, logging its receipt, distributing it to those who need it,

and tracking what is delivered. If it is not feasible to initiate this process within your company, consider contacting your IBM client team to explore the option of using an IBM Business Partner for assistance. As one executive, a client, said, “The recommendation that one owner be defined for the successful deployment of software has been extremely beneficial.” (GMR Corporation, VP of Technical Services, an IBM Business Partner).

3.2.2 Defining a governance structure for the deployment process

The executive business sponsor and the software deployment team executives must establish a Center of Excellence to put rigor around deployment projects. This type of organization can facilitate each deployment at multiple phases in the deployment life cycle. While kicking off a deployment, a Center of Excellence provides an internal organization and a group of professionals who can increase the buy-in and willingness of other organizations to use the purchased software and hardware. This can be done with presentations, demonstrations, and Proofs of Concept (PoC) (see Appendix 4.4.2, “Client lab advocacy program” on page 94) during the deployment of software and hardware.

Many individuals from your organization, and those from IBM and our Business Partners, must work together on the Center of Excellence team to ensure successful software deployment. Typically, a Center of Excellence team includes the roles in the following list, which are defined in “Software deployment roles in a business partnership” on page 22:

- ▶ The client team:
 - Business Sponsor
 - Project Sponsors
 - Project managers
 - Enterprise IT Architect
 - Procurement Officer
- ▶ The IBM software client team:
 - Client Executives
 - Software Client Leaders
 - Specialist Software Sales Representative
 - IBM Software Client Architects
 - Client Technical Professionals from various IBM software and hardware brands
 - Services representatives, for example, from IBM Global Services, the Server Technology Group, Global Technology Services, and IBM Software

Services (also known as IBM Software Group Lab Services), education, support, and so on

- ▶ Third parties:
 - Third-party Project Managers
 - Third-party Architect
 - IBM Business Partners assisting in administrative or deployment functions

The Center of Excellence team must meet at least bi-weekly to develop software deployment strategies, to review software deployment progress, and to define and manage company-wide initiatives.

Additionally, the Center of Excellence facilitates sharing of skills, experiences, and resources across multiple projects. It accelerates and improves the quality of the entire deployment process and provides one central place for IBM software expertise to visit and to assist, when needed.

3.2.3 Centralizing software fulfillment and license management

This discussion focuses on the two primary steps in demonstrating deployment readiness:

- ▶ Centralizing software fulfillment
- ▶ Implementing a license management tool.

Step one: Centralizing software fulfillment

Buying a software agreement is not like buying, for example, a car. It is not one single entity that the customer buys. Rather, with a software agreement, you purchase a license to use a multitude of software packages that you download from the IBM Passport Advantage website (see “License acquisition and entitlement with Passport Advantage” on page 90 and “Software support offerings from IBM” on page 144). To maximize deployment activity, the delivery of software is continuous until the contract expires. The list of customers who are scheduled to receive software changes over time.

The executive business sponsor must centralize the software fulfillment process as early as possible in the deployment life cycle. That way, one party in the company is responsible for downloading all software in the ELA, logging its receipt, distributing it to those who need it, and tracking what is delivered. This can mean that the responsibility for all aspects of deployment are scattered across a wide range of departments, businesses, and processes, which can be a significant inhibitor to rapid deployment success. Therefore, instituting a centralized software fulfillment service is crucial for compliance reasons, as discussed in “Step two: Implementing a license management tool and processes for use” on page 54 and “License acquisition and entitlement with Passport

Advantage” on page 90. If it is not feasible to initiate this process within your organization, consider contacting your IBM client team to explore the option of using an IBM Business Partner for assistance.

Step two: Implementing a license management tool and processes for use

Just as it is crucial to institute centralized software fulfillment service in your organization, we found that a specific system of license management is crucial as well. Why? In this age of distributed computing, departmental projects, and company locations that span the globe, it is important to understand where your investments are and how they are being used.

You might have contractual obligations to report on software use or over use; alternately, you might use this information internally to manage costs or charge backs. Implementing a complete process with the appropriate tools allows you to clearly understand your software usage. License management involves identifying software by its phase-of-use:

- ▶ The licenses that to be installed
- ▶ The licenses that are actually installed
- ▶ The licenses that are actively being used
- ▶ The number of licenses that are forecasted to be installed

Performing effective license management requires a combination of tools and processes. Many companies tried to accomplish this task on paper, with spreadsheets, or using e-mails. This tracking typically addresses only the first phase of license management, that is, the licenses to be installed. An equally critical stage is tracking what software licenses are actually installed and used because departments are charged for the software distributed to their community, whether or not it is being used. Good record keeping and license management techniques for your software collection and its use ensures that software is purchased at the required levels. This can also be enlightening as to what value is being derived from the software that is intended to grow business.

By having a centralized license management tool, you address the issue of compliance. A software audit, either manual or with an inventory tool, can discover widespread installation of software in the organization. In fact, software is often not removed, consuming valuable disk space, or it is installed and later forgotten. An inventory can be used for budgeting software licensing and maintenance. You might realize that you have paid more than necessary to maintain unused licenses. Finally, factor in your projected deployments if you are using the data for budgeting purposes.

In the discussion of deployment tools in this book¹, we discuss tools, including the IBM License Metric Tool, the Tivoli License Manager, and the IBM Enterprise

Software Management Tool. These are innovative web solutions that are designed to help you manage large, complex software license contracts more efficiently and more effectively, and they can be used for license management. You can also use IBM Business Partners or a homegrown process or system to track license utilization. The Enterprise Software Management tool is a secure, online self-service tool that is readily adaptable to a variety of internal business processes. It is fully scalable, so it is flexible enough to keep up with rapid changes in business. With the same entry point for both parties, you and IBM have an up-to-date snapshot of the status of all of your IBM license and other software entitlements.

The key point is that IBM must enforce more strictly the need for you to report software use. The contract specifies that this is your responsibility. Not doing so can lead to a full audit of your environment by IBM or a third-party consultant.

For more information about the topic of license management tools, refer to “License acquisition and entitlement with Passport Advantage” on page 90. Case study

Case study

A leading health care provider in the United States partnered with IBM and their software partner to develop an electronic software delivery system. This system ensures that software is available to their users and tracked for accounting purposes. Not only can users request authorization and download software electronically, but the system also produces a scheduled management report to the procurement office. This type of innovation alleviates the burden of managing software media, provides the tracking needed to demonstrate software utilization, and reduces company operations costs.

This customer has a contractual obligation to report software usage (refer to your ELA and Passport Advantage agreement for details). While the IBM Software Group takes a soft approach to enforcing this policy, it is important for the customer to think about the concept of license tracking and management for both limited and unlimited licenses.

3.2.4 Engaging consulting and implementation services

Our most successful customers frequently engage IBM deployment services to augment their local expertise. Our services professionals are familiar with the products and can start planning and implementing your solutions immediately. They can also be helpful in providing training to your staff, which reduces the time you need to reach self sufficiency.

¹ Refer to “Tools” on page 71

Your IBM client team gets involved with many services engagements and can help you determine what is needed for your unique situation. If you decide not to use an external services organization, realize that your time-to-value might be delayed further than desired. We are here to train your staff to integrate and fine-tune the new technology in line with your existing environment and gain value from the software purchased to address the business challenge. Little worthwhile business software is self-installing, self-calibrating, or self-maintaining. You have highly skilled technologists employed, but, while they are working on core business, when will they have time to deploy the new technology and support core business? This deployment best practice causes you to consider their requirements for parallel or redundant resources for the duration of deployment. It is important to have IBM Services involved early in the solution design cycle, where you might not have existing expertise in your organization and where you welcome the approach from IBM Services. Preferably, IBM Services can be engaged in the pre-sales steps of the engagement and continue to work with you on the implementation details. The IBM Services team will:

- ▶ Assess the deployment projects that are scheduled to begin after the agreement closes.
- ▶ Conduct a skills gap analysis with you and recommend appropriate IBM Services engagements.

Refer to our discussion about engaging IBM Services organizations².

3.2.5 Defining your return on investment strategy and time-to-value

It is up to you to determine and communicate how you will calculate and measure value. This calculation is typically stated as return on investment (ROI) with the time frame for that return known as the time-to-value. There are generally two types of ROI used:

- ▶ Soft ROI: This includes such examples as better monitoring or control capabilities, transformation of IT or business processes, implementation of a strategic vision, and the adoption of a common look and feel.
- ▶ Hard ROI: This includes such examples as head count savings, system count reduction, server consolidation, department or process closures, and outsourcing.

You or the executive business sponsor can work with the IBM Software Client team to define the ROI and map a timeline with *value milestones*. Revisit the milestones at least quarterly to ensure that the deployment is moving forward

² Refer to Chapter 5, “Using IBM Services to complement your skills and accelerate value” on page 113

effectively and delivering the intended results. Refer to 1.4, “Value realization” on page 8 for more information about this topic.

3.2.6 Conducting workshops to assure deployment readiness

A key event that helps to launch a large deployment effort is hosting a workshop that initiates the deployment process. We call this deployment kickoff meeting. This meeting generally takes place soon after the software sales agreement is closed, and can be followed by a two to five-day software deployment workshop, which usually occurs in later stages of deployment. It is beneficial to conduct this workshop when you have trouble with software deployment, in case you purchased a lot of software that is not yet deployed and need guidance in taking advantage of your purchase. Thus, you can use any one of the workshops, depending on your requirements.

During the workshops, follow the guidance and practices of the software deployment method. This document serves as a guide for documented, proven, repeatable software deployment practices that, when followed, maximize your probability of deployment success. We discuss this method in 2.4, “The software deployment method” on page 32.

The key to deriving value from software deployed within a software purchase contract is the adherence of the IBM team to this method (a common roadmap), which keeps the team on the same page and helps them to look and act as a team when they interact with you.

Step one: Conducting a deployment kickoff meeting

This event introduces your stakeholders to the purchased products. It is also an opportunity to describe how the products fit into your vision. This is a good time to review software deployment best practices. In addition, review any expectations that were set and the criteria that will be used to measure value realization. This is a good start to guide and plan for successful deployment of software for multiple projects.

The time invested will pay excellent dividends as you deploy. See also “DM4: Conduct a deployment kickoff meeting” on page 37.

Step two: Conducting a software deployment workshop

A software deployment workshop, generally two-to-five days in duration, was designed to help you build the internal plan, skills, and processes that are necessary to realize success from your IBM software purchase. It is conducted

with the software deployment method and software best practices in mind and specifically designed for you and your stakeholders. If you seek answers to any of the following questions, you can benefit from the workshop:

- ▶ What business or IT goals are you hoping to accomplish by this software purchase?
- ▶ How will success and value be measured?
- ▶ What are the timelines and major milestone plans?
- ▶ What deployment projects can be accomplished in the next six to nine months that can produce quick deployment wins to gain confidence?
- ▶ Is there a person or persons, across lines of business, who are responsible for realizing full value from purchased software?
- ▶ Who will deploy software and handle knowledge transfer to your team?
- ▶ What personnel skills and experience gaps do you think can impact the deployment progress?
- ▶ How is education delivered today (classroom, web)?
- ▶ What internal matters (politics, factions, geographies, languages, cultures) exist that can impact deployment mindshare, buy-in, and progress?
- ▶ Across all lines of business, and within departments, how will the vision be articulated, the goals communicated, success advertised, and potential challenges averted? At the workshop, we will work with you to set the right expectations, provide pre-workshop collateral, and offer follow-up suggestions to keep the momentum of deployment high. The workshop will:
 - Introduce the software deployment method
 - Determine what it means to plan for success
 - Identify quick deployment wins that will build confidence and momentum
 - Introduce the IBM Software Client team and review our core responsibilities
 - Step through deployment best practices and the deployment readiness plan, and identify any gaps
 - Identify action plans to address identified gaps
 - Define value and determine how and when it will be realized
 - Sketch and discuss a high-level deployment plan that will achieve business goals
 - Schedule a follow-up meeting to monitor progress

This workshop is conducted as a best practice and follows the software deployment method. Depending on your preferences, you can conduct a

workshop or IBM can conduct it. To arrange for a software deployment workshop for your team, contact your Software Client Leader from IBM.

Case study

To facilitate communication and marketing efforts, the Enterprise Agreement Deployment team at HIC devised an event entitled EA Land, which was organized to allow the project leads to highlight their teams' achievements during the first eight months of ELA deployment work. To realize the true value of purchased software, the executive business sponsor gathered the professionals who were involved with deployment projects and organized them into groups. They were charged with addressing key questions across multiple lines of business. They were responsible for realizing the full value from the purchased software and hardware. During the workshop, they discussed and addressed the questions listed in "Step two: Conducting a software deployment workshop" on page 57.

3.2.7 Identifying strong project and resource management

To successfully deploy projects that address your business needs, you need a strong project manager. There are a number of aspects in the deployment of the projects to consider, such as which tasks are being carried out by whom and how deployment tasks come together under one umbrella. The question for you is, "Do I have the needed resources and skills for success, and, if not, should I recruit these resources from within the organization or hire from the outside?"

3.2.8 Committing to self-sufficiency

The goal of your IBM Software Client team is to decrease the level of involvement from IBM over time as you progress through your deployment plan. This is accomplished through a well-designed education plan that develops subject matter experts (SMEs) within your own organization for the solutions being implemented. You can kick start this by hiring deployment services, or you can develop in-house expertise.

3.2.9 Communicating and market the vision

Your software partners and vendors are capable marketers of their products, they are not in the best position to market your vision. Therefore, the business drivers behind a software purchase are often not communicated within a company. Sometimes it is the inventory of software purchased but not deployed that is forgotten. This internal marketing and communication can be led by the executive business sponsor to create demand, interest, and promote success.

Like the steady beat of a drum, communications must continue throughout the life of the deployment to market and surface deployment opportunities and areas for improvement. The software deployment team is charged with monitoring deployment progress and recommending adjustments in the communication plan.

In general, keep those who need to know informed about the progress or inhibiting factors of the deployment. An example of communications can be a newsletter or intranet web site that keeps management and end users informed about recent accomplishments, milestones, and improvements. It is important to promote and validate the results of deployment often and to as many audiences as possible to maintain momentum and excitement. An example of how continued communication can promote success is in the 3.1.1, “Case study” on page 48, from which we quote:

“Because HIC focused on planning, communication, and several other principles highlighted in this chapter, several early successes from their EA deployment efforts were achieved. Along the way, they also successfully designed and implemented a process that would help to ensure successful software deployments in the future.”



Accelerating software deployment using tools and assets

4.1 What this chapter is about

Planning IT projects and tracking the progress and performance of them is crucial for successfully achieving value realization of software licenses. The planning aspect includes:

- ▶ Setting priorities and determining a project roadmap and dependencies
- ▶ Defining the needs for project implementation (for example, hardware, software, resources, and skills) and operation with a strong focus on optimization
- ▶ Defining governance and key performance indicators (KPIs) to ensure that each initiative is moving in the right direction
- ▶ Realizing plans, which includes:
 - Building a project roadmap by defining project priorities, dependencies, the major implementation considerations (for example, hardware, software, resources, and skills), and the operations process
 - Maintaining a strong focus on optimization
 - Governance and key performance indicators (KPIs) to ensure that each initiative is moving in the right direction

Realization of deployment plans is also important, which includes:

- ▶ Project and portfolio performance tracking to ensure that projects are progressing and delivering value realization as planned
- ▶ Resource, asset and license management tracking to support the optimized use of hardware, software and human resources
- ▶ Change management governance and tools to support changes in business and technical needs

There are several methods, tools, and best practices that are used by many clients that can help organizations plan and track their IT investments, including software licenses. More details regarding best practices and tools is in Chapter 2, “The IBM software deployment method” on page 19. We recommend that you review that chapter in addition to this chapter. The most important of these are discussed in this chapter, which are:

- ▶ Enterprise architecture (EA) and portfolio management. EA provides a structured approach for aligning business and IT in terms of priorities and performance management, optimization and standardization of the organization and processes, and IT and transition planning.
- ▶ Project management is required to adequately manage, plan, and track projects.

- ▶ License and Compliance management, discussed in “License and compliance management” on page 70, is necessary for tracking and managing software licenses.
- ▶ Change Management, discussed in “Change management” on page 70, is required to manage change requests.

We conclude this chapter with a discussion about tools for tracking and planning.

4.2 Enterprise architecture and portfolio management

In this section, we discuss Enterprise architecture, including portfolio management and how these disciplines can help in realizing value by successful deployment of software.

4.2.1 Introduction to EA and portfolio management

Enterprise Architecture is a business and IT architecture framework, a blueprint that aligns business initiatives to IT. As such, EA is the integration point between business and IT, serving as the catapult that accelerates the delivery of IT solutions.

IBM Enterprise Architecture method: There are several EA methods available on the market including the IBM Enterprise Architecture method, which was developed through several client engagements. This document is not describing a specific EA Method, but it looks more at how Enterprise Architecture, as a concept, can help improve the software deployment success.

Figure 4-1 on page 64 illustrates the concept of EA at a high level, where EA is the link between strategy (business) and system design (IT).

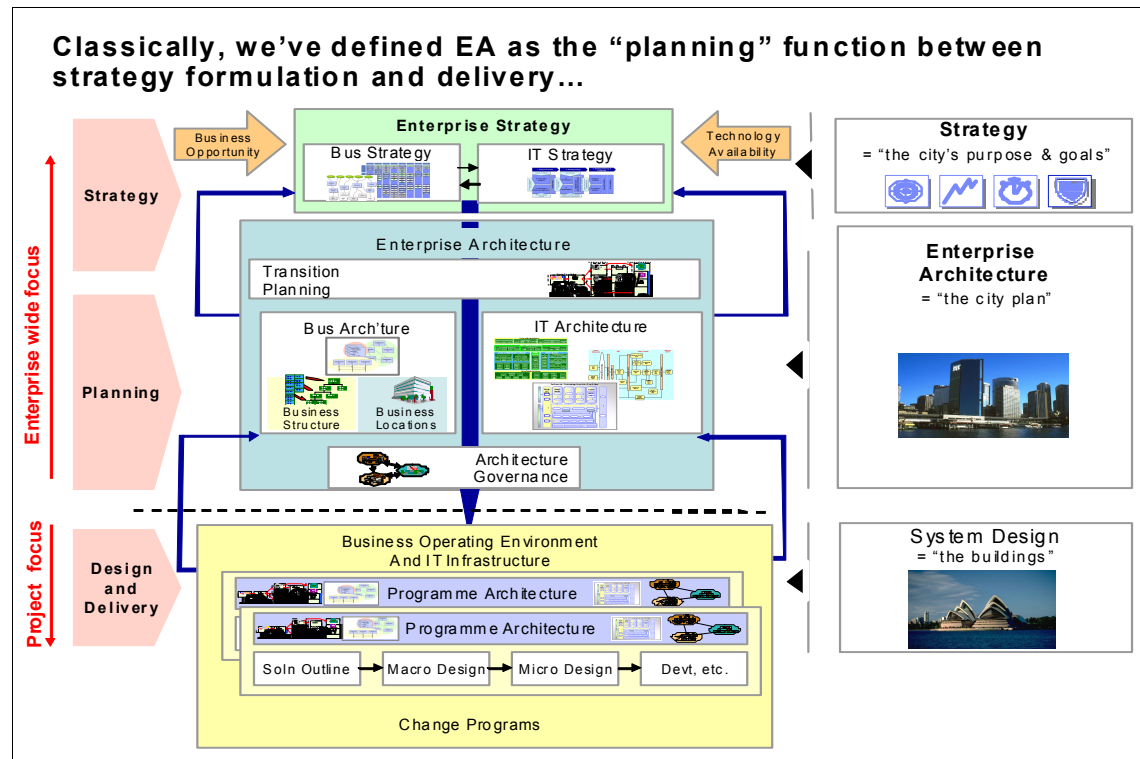


Figure 4-1 High level view of EA, integrating strategy (business), and system design (IT)

EA defines the architectural models, governance, and transition initiatives that are needed to effectively coordinate the stakeholders' drive toward the overall goal of increasing efficiency and lowering costs. Figure 4-2 on page 65 illustrates the components of these initiatives.

Three aspects of enterprise architecture

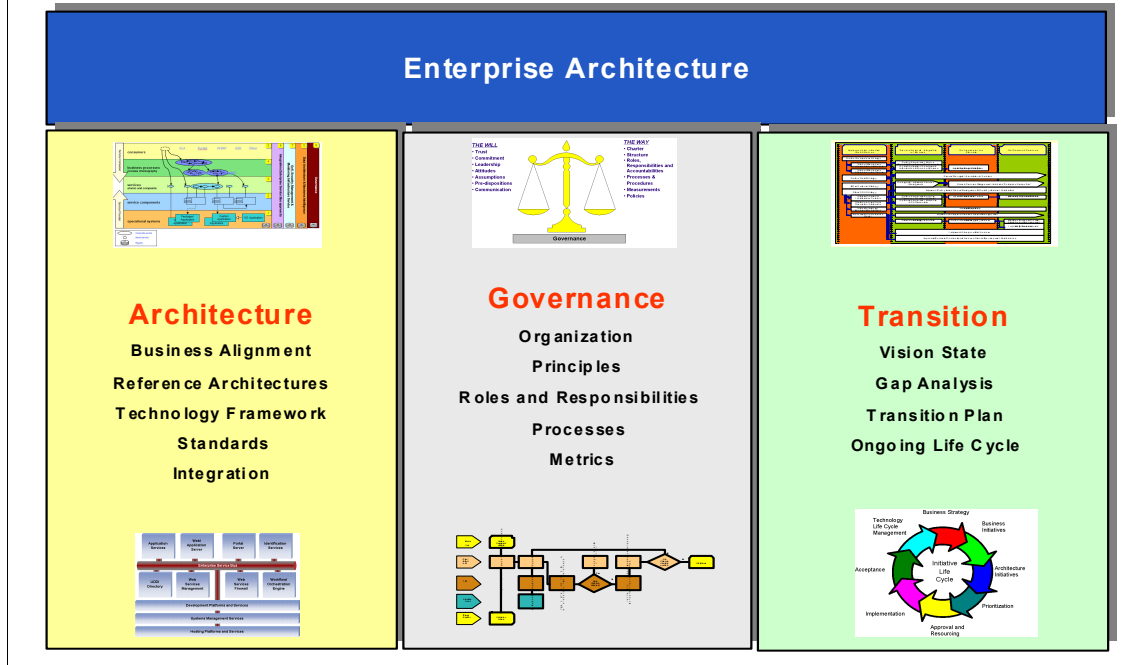


Figure 4-2 The architecture, governance, and transition perspectives of EA

IBM is one of the leaders in Enterprise Architecture with long history and experience. Enterprise Architecture best practices are consolidated in the IBM Enterprise Architecture Method, which provides guidance about *how* to implement Enterprise Architecture in an organization, *not* just what must be defined.

4.2.2 What is the EA process?

The EA process is an iterative process. Every successful project has the potential to change the existing architecture, possibly forming gaps, and therefore needs a transition process, as depicted in Figure 4-3 on page 66.

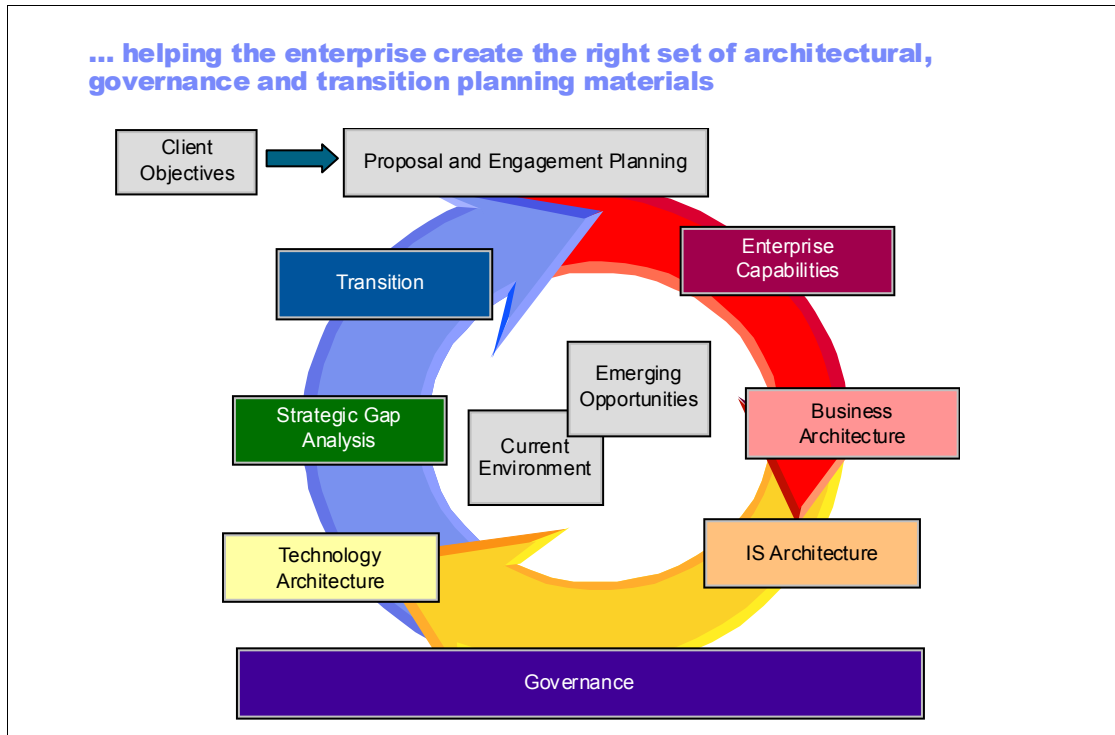


Figure 4-3 Primary components of the EA process

EA is primarily about:

- ▶ Doing the right things (Upstream EA): Identifying, funding, and resourcing the most important programs in line with the business strategy, within budget, in the right sequence, and with effective program management and control.
- ▶ Doing the things right (Downstream EA): Ensuring that the solutions delivered by these programs meet the needs of the business, work within the existing IT environment, and contribute to the realization of the IT strategy of the enterprise.

4.2.3 IT portfolio management in EA governance

The principal purpose of IT portfolio management is to define project and program priorities in terms of IT investments. The goal is to provide the best method for achieving business goals and measuring performance. IBM uses one of the key components of IT portfolio management, EA governance, to define these priorities.

EA governance defines the metrics, measurement, and monitoring of the investment, as compared with the value derived from projects, applications, and technologies. IT portfolio management provides an important base for defining project, application, and technology life cycle governance, as Figure 4-4 shows.

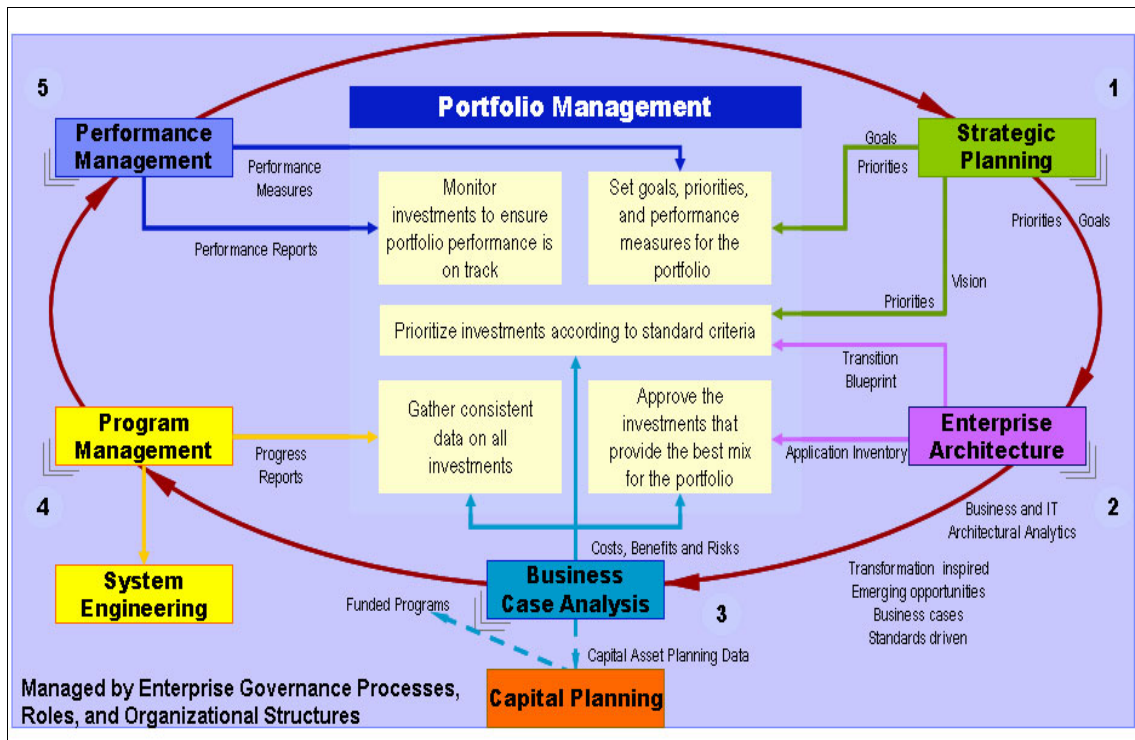


Figure 4-4 IT Portfolio management in EA governance

IT Portfolio management defines a sequence (project or program roadmap) of projects and programs and dependencies between them. With the prioritization and roadmaps completed, each project and program must be managed properly to achieve the defined goals.

IT portfolio management is accomplished successfully by managing three portfolios:

- ▶ **Application portfolio:** The application portfolio takes into account the cost of existing software, whether purchased, licensed, or developed in-house. All expenses are considered, including development (if applicable), upgrades, licensing, and maintenance. Management of the application portfolio focuses on comparing the spending for the application with the relative value of the software to the organization. The comparison can be based on the level of contribution in terms of IT investment profitability, or less tangible factors (for

example, existing skills), that can be measured using soft skills measurement techniques.

- ▶ **Infrastructure management:** Infrastructure management refers to the operational components of the enterprise that primarily impact Quality of Service (QoS) and the overall effectiveness of the IT infrastructure. These operational components include system management, network management, security management, and storage management. For each of these areas, we analyze the policies, processes, equipment, data, human resources, and external contacts that make up the infrastructure.

We strongly support the creation of the infrastructure portfolio, based on our experience with organizations that overlook this important component of portfolio management. Often, in the rush to reduce costs, increase IT quality, and increase competitiveness by selectively choosing sources and services, organizations that overlook this portfolio realize overpayments, cost overruns, unmet expectations, and failure.

- ▶ **Project portfolio:** This type of portfolio management focuses on prioritizing new projects based on value, urgency, project dependencies, and the availability of resources. This portfolio provides a framework for the project roadmap.

4.2.4 The value of enterprise architecture and portfolio management in software deployment

There are several commonalities between planning for EA and planning for software deployment:

- ▶ Both align IT to business goals and value
- ▶ Both define a technology gap between current and future states
- ▶ Both define a transition plan (business and technical project roadmap)

IBM developed a light version of the enterprise architecture, illustrated in Figure 4-5 on page 69, with a focus on IT infrastructure planning and value realization. It has been used in the preparation of many IBM enterprise license agreements with the content preparation and content business justification.

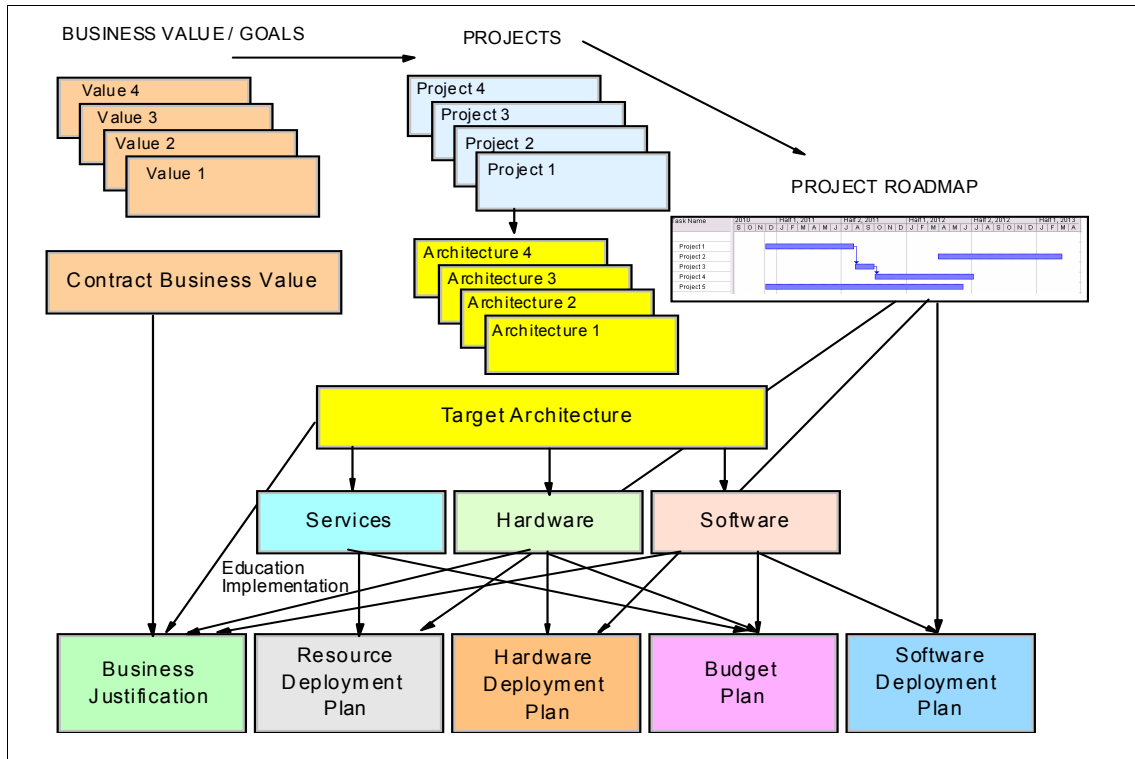


Figure 4-5 The IBM EA Light process

The process starts with the definition of business goals and the value associated with each goal. Usually, several projects are identified that help to achieve these business goals. The team must provide a project roadmap, based on project complexity, needs, available resources, and project dependencies. Each project generates an IT solution with an appropriate architecture. The next step in the optimization process is the consolidation of solution architectures using *component standardization* in the target architecture. Component re-use between multiple projects and solutions is important because it produces:

- ▶ Lower SW license costs because the same license can be used for multiple solutions
- ▶ Lower administration and maintenance costs because fewer components need to be managed and maintained
- ▶ Lower integration costs and faster integration

The target architecture contains the existing components (hardware and software) and new components. The gap between the “as is” and the target (“to be”) architectures generates a list of hardware and software components needed

to establish the target architecture and the services needed for implementation, support and skills transfer.

The list of hardware, software, and services can be associated with the project roadmap with the following output:

- ▶ Hardware deployment plan: The timing for each hardware component to be installed and operational
- ▶ Software deployment plan (roadmap): The software implementation schedule, based on the project plan and software requirements for each project
- ▶ Resource deployment plan: The resource activity plan, based on hardware and software implementation plans

For each project in the solution, and for the solution overall, the contract must provide value to the business. Map the solution components to the function and value of the project and business goals to provide a good model for justifying new components and for measuring the value of them.

4.2.5 License and compliance management

License and compliance management provides:

- ▶ License Management: Real-time monitoring and reporting on license use by an organization or segment of the organization
- ▶ Compliance Management: A comparison of licenses purchased with licenses used enables you to understand which ones and how many licenses are still available and if the organization is software-license compliant.

There are several tools available for monitoring software license use and software compliance.

License and compliance management is extremely important in complex software deployment projects. It enables you to be aware of software license purchases and use. It also makes you aware of potential software license substitutions, where applicable (see Appendix A, “The IBM Enterprise License Agreement” on page 187).

Change management

Changes happen frequently when a deployment project is running. In long-term, strategic projects, a multitude of changes can be expected. Changes to the original project plan are needed because of changes in business priorities, technologies, and other factors that were not considered or that changed. Each change in project priority, scope, architecture, or plan can have multiple

implications on overall project performance. Therefore, they must be identified and managed to achieve the business goals as initially defined.

Change management can have a tremendous impact on software deployment success. This includes changes in licensing needs (for example, a change in project priority or architecture), resources and skills, and changes in the overall project justification.

4.2.6 Additional tools

Tools that IBM uses in planning and tracking software deployment projects are:

- ▶ Enterprise architecture management
(<http://www.ibm.com/software/rational/offerings/eam/>)
 - IBM Rational System Architect
- ▶ Requirements management
(<http://www.ibm.com/software/rational/offerings/irm/>)
 - IBM Rational Doors, IBM Rational Requisite pro
- ▶ IT portfolio management
(<http://www.ibm.com/software/rational/offerings/ppm/>)
 - IBM Rational Focal Point™
 - IBM Rational Insight
 - IBM Rational Asset Analyzer
- ▶ Project management
 - Rational Project Conductor™
 - Rational Method Composer
- ▶ Software license compliance
 - IBM Tivoli License Manager
 - IBM Tivoli Compliance Manager
 - Change Management

4.3 Tools

This section discusses the tools that are available for systemically assisting you in accelerating your software deployments. We encourage you to take advantage of these tools and processes.

Our tools and procedures can be organized into five primary categories:

- ▶ License and asset management tools

- ▶ Compliance management tools
- ▶ Software product compatibility tools
- ▶ Tools for managing software projects
- ▶ Self-help tools

Most organizations have a customized set of tools for managing projects and monitoring deployment performance. It is not our goal to have only IBM products in place to fulfill your tools requirements. It is more important that you recognize any weaknesses in your tools strategies and take corrective action. To learn more about any of the tools described in this chapter, contact your IBM software sales representative or visit:

<http://www.ibm.com>

The overall goal of the tools discussed in this section is to help you to confidently architect, install, and configure combinations of products in specific business scenarios. These tools are our way of proactively making information available to you that can assist you in avoiding problem management records and critical situations.

4.3.1 Tools that facilitate software deployment management

Experience confirms that *portfolio, product, and project management* solutions transform the way organizations define and deliver value.

Portfolio, product, and project management software from IBM

It is helpful to teams to align software and product investments with business objectives. It helps to improve predictability and product success, manage and optimize project execution, and measure team performance and project results.

The portfolio, product, and project management solutions deliver the following values. They:

- ▶ Continually prioritize investments, based on revenue potential, risk, and cost
- ▶ Gather and use stakeholder input to prioritize the most valued products, applications, and projects
- ▶ Maintain clear visibility into performance across project, application, and product life cycles

This concept is depicted graphically in Figure 4-6 on page 73.



Figure 4-6 Values delivered by the IBM portfolio, product, and project management solutions

Other products in the category of portfolio, product, and project management software are:

- ▶ IBM Rational Focal Point
Offers the ability for you to evaluate investment scenarios to align product, project, and application portfolio decisions with the overall business value.
- ▶ IBM Rational Insight
Lets you measure, monitor, analyze, and trend your project and process performance to make the best decisions for your business and for continual process improvements.
- ▶ IBM Rational Method Composer
Helps you to implement effective processes with a flexible process management platform with tooling and the richest process library.
- ▶ IBM Rational Project Conductor
Aids you in your goals to improve software and systems delivery with streamlined, collaborative project and resource management.
- ▶ IBM Rational Publishing Engine
Assists you in automating document generation from disparate applications with a document generation solution that has built-in extractors.

For further details about these tools, visit:

<http://www-01.ibm.com/software/rational/offerings/ppm/>.

An example of how IBM implemented the portfolio, program, and project management end-to-end solution is shown in Figure 4-7.

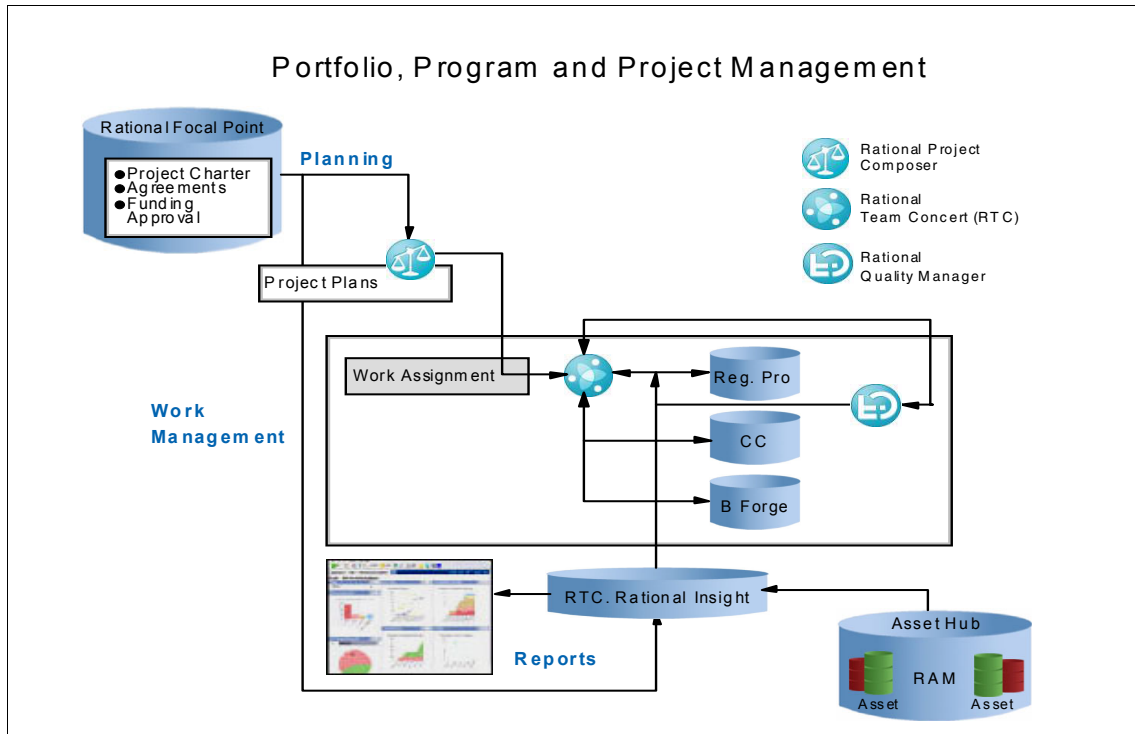


Figure 4-7 Depiction of how IBM implemented the portfolio, program, and project management solution

4.3.2 Tools that facilitate software deployment tracking

For software deployment tracking, we offer the following tools.

License and asset management tools

In today's business, no company can be profitable without taking care of IT resources. IT is more than just a link in a production chain. For many companies, it is the key factor that improves overall corporate revenue. Even the smallest organization needs to set up an IT infrastructure for their business.

The larger an organization is, the more complex the IT infrastructure needs to be to support business objectives. This infrastructure requires time and money for

management and maintenance activities. In a large organization, a critical business need is that you have a software solution that helps you to track assets from financial, contractual, and physical perspectives. By having an integrated view of your hardware and software assets, you enable the organization to plan for hardware and software maintenance and upgrades, and to understand exactly what resources are needed to support the business goals.

Typically, software assets are a key factor that is missing from asset management. The primary focus of setting up an IT infrastructure is usually related to software, not to hardware. Working with software products that are running in a large infrastructure, including thousands of servers and desktops, is not a trivial task. There are several benefits to using an enterprise solution to accomplish this task. Several of these are that an enterprise-based solution enables you to:

- ▶ Legally enforce license agreements of procured products
- ▶ Obtain information about the software that is actually used
- ▶ Strive for full utilization of procured products, paying for support only on those products that are used
- ▶ Gather data for total cost of ownership analysis

Collecting information about the software products that are installed and used in your IT infrastructure is the only way to achieve these benefits. To do this, an explicitly designed system for asset and license management, along with well-defined processes for using it, is necessary.

Taking control of software licenses

Software monitoring is the primary issue in software asset management. It is the only way to know exactly what products are really needed, especially for large environments. However, a solution for asset and license management is more than just an inventory of software.

The real needs for asset management go far beyond a simple tool for tracking software. You likely need to know if any of your departments are purchasing more licenses than necessary because they do not know if the software is really needed. Further, you need to know if this is exposing your company to the risk of using software products in a noncompliant manner.

Taking control of your software licenses is just as important as tracking the life cycle of hardware assets. A solution that tells you if you are overspending or taking the risk of high penalties gives you an instrument to achieve these goals:

- ▶ Reduce the overall cost of software license management and compliance monitoring

- ▶ Produce the licensing data necessary to plan for license upgrades and migrations
- ▶ Analyze the licensing data to determine if other options are more attractive

To attain these goals, your software procurement information must be properly reconciled with software use and inventory data. Only by doing this is it possible to tell whether you are paying more license fees than necessary or if you need additional licenses to remove any compliance exposure.

IBM License Metric Tool

The IBM License Metric Tool helps Passport Advantage (see “License acquisition and entitlement with Passport Advantage” on page 90), clients determine their full and sub-capacity Processor Value Unit licensing requirements.

The IBM License Metric Tool is a product that helps to calculate the number of Processor Value Units. The tool is available free of charge to Passport Advantage and Passport Advantage Express customers. This includes supported virtualized servers that are available to the Passport Advantage, Processor Value Unit-based software. The IBM License Metric Tool enables you to:

- ▶ Achieve and maintain compliance: Use the report function to help determine if you have the correct number of Processor Value Unit license entitlements, in both full and sub-capacity environments, for each Passport Advantage, Processor Value Unit-based product installed. The license terms of the Passport Advantage sub-capacity offerings require that reports from this tool be created, verified, adjusted, signed, and saved.
- ▶ Support distributed server virtualization: Manage diversified workload consolidations onto virtualized servers, using the partition-specific Processor Value Unit-based software inventory reports.
- ▶ Lower liability risks: Reduce the risk of not meeting your Passport Advantage, Processor Value Unit-based contractual licensing conditions and facing unplanned license compliance payments.
- ▶ Track IBM Processor Value Unit-based software inventory: The tool maintains a continuously updated inventory of where the Passport Advantage, Processor Value Unit-based software assets are installed on your network.
- ▶ Obtain the IBM License Metric Tool free of charge: Passport Advantage and Passport Advantage Express customers can order the IBM License Metric Tool at no-charge, using Passport Advantage or Passport Advantage Express and part number D561HLL.
- ▶ The IBM License Metric Tool is also useful for tracking the use of other types of software in your organization. These include: freeware (free or low-cost software with restricted use rights), open source software (modifiable source

code that requires a software license), shareware (software generally used on a trial basis), and non-IBM proprietary software.

For more information about the IBM License Metric Tool, visit:

- ▶ Getting Started with IBM License Metric Tool presentation:
ftp://public.dhe.ibm.com/software/tivoli/products/license-metric-tool/Getting_Started_with_IBM_LicenseMetricTool.pdf
- ▶ Summary of Passport Advantage sub-capacity licensing requirements and related offering documentation:
<http://www-01.ibm.com/software/lotus/passportadvantage/subcaplicensing.html>
- ▶ IBM Passport Advantage Sub-capacity offerings license terms require that reports from this tool are created, verified, adjusted, signed, and saved:
<http://www-01.ibm.com/software/lotus/passportadvantage/ibmlicensemetrictool.html>

IBM Enterprise Software Management Tool

The IBM Enterprise Software Management Tool is an innovative web solution that is designed to help manage large, complex software license contracts efficiently and effectively. The tool is a secure, online tool that is readily adaptable to a variety of internal business processes. Because it is fully scalable, it is also flexible enough to keep up with the rapid changes in business. The tool, which is applicable to IBM software only, is a free service. With the same entry point for both parties, the client and IBM have an up-to-date snapshot of the status of all of your IBM license entitlements. It is the responsibility of the client to maintain the database, or to provide access to the IBM client team. The data collection is done manually.

Whenever you deploy, input, or update information, the Enterprise Software Management tool automatically updates related data as well. This makes up-to-date information available to you and IBM, simultaneously and in real time, so there is no need for you or IBM to verify figures:

- ▶ Access to the Enterprise Software Management tool
Granting both parties easy access to the same information is central to the smooth running of a contract. As an online tool, this program makes information available to both parties. Each time an action is performed within the tool, it automatically notifies the right people, using email, which adds an extra degree of transparency to the management of software license contracts.

- ▶ The role of the Enterprise Software Management tool in software deployment
Each software deployment can be registered with the tool by the client, along with details, such as the associated business unit. This assists both IBM and the client in keeping the overview of deployed software current. Enterprise Software Management tool reports can be generated, listing software deployed and software not yet deployed.
- ▶ Benefits and how the Enterprise Software Management tool can save you time and money
There are multiple benefits of the tool, such as:
 - Productivity savings
 - Less manually-intensive work in tracking licenses
 - Provides 24X7 access to view entitled software using a secure portal
 - Decreased administrative tasks, translating into more time for you to focus on business
 - Improved visibility
 - Historical reporting
 - Improves visibility to the terms and conditions of the contract
- ▶ The tool automatically updates the contract status and numbers of licenses, as the data changes
- ▶ Eases software deployment planning
- ▶ Supports product substitution

For more information about the Enterprise Software Management tool, visit:

http://www-304.ibm.com/shop/americas/content/home/store_IBMPublicUSA/en_US/enterprise_software.html.

IBM Tivoli License Manager

The IBM Tivoli License Manager tool is an offering for managing software licenses, including non-IBM licenses.

- ▶ The tool is a web-based solution that meets the challenge of supporting the complex software asset management process. It provides software usage metering, procurement management, license allocation, and compliance support services, all on a variety of host platforms.
- ▶ This tool assists you in meeting software asset management objectives by accomplishing, often silently, a number of tasks, including:
 - Collecting information about installed products using Tivoli Common Inventory Technology for scans

- Identifying the start and stop of software products on all machines on which the IBM Tivoli License Compliance Manager agent is running
- Providing reports that allow the comparison of installed, used, and procured licenses to support procurement management activities
- Metering software usage for products that have no license definitions or requirements
- Generating alerts that automatically inform administrators when license usage reaches a predefined level
- Assigning a pool of licenses to users and machines with a product-specific, context-driven quantity that defines the number of software instances, either installed or in execution, for a specific product for compliance checks
- Associating the information contained in contracts to license definitions
- Providing for the security of confidential information by maintaining security profiles and by the encryption of data during transmission between the components of the IBM Tivoli License Compliance Manager (see “Tivoli License Compliance Manager” on page 80)
- Establishing electronic entitlement for IBM software, using prefilled, error-free IBM license terms and definitions
- Providing the capability for managing a complex product, made up of several components or bundles, possibly installed on different systems
- Offering logical partitioning and virtualization support, using layer abstraction, and based on partitioning and virtualization elements in the virtualization stack

For more information, visit the License Compliance Manager product line web site at:

<http://www-01.ibm.com/software/tivoli/products/license-mgrproductline/>

Implementation best practices for IBM Tivoli License Manager (Redbooks publication) are available at:

<http://w3.itso.ibm.com/abstracts/sg247222.html>

Compliance management tools

Compliance, corporate reporting, and auditing practices are now a critical issue in an IT infrastructure. Given this, it is no surprise that an effective compliance system is one of the best investments an organization can make. Organizations need to ensure that their systems, and the software installed on their systems, meet all of the current legal and regulatory requirements.

Managing your compliance initiatives electronically provides for more proactive risk management, decreased costs, increased public disclosure, productivity, and a more effective way to ensure IT compliance with corporate policies and regulatory requirements. Thus, to avoid surprises when an audit is done, use the tools that can help. There are many tools on the market that take care of software license compliance. IBM has the end-to-end solution.

For more information, visit:

<http://www-01.ibm.com/software/tivoli/products/license-mgr/>.

Tivoli License Compliance Manager

The Tivoli License Compliance Manager helps manage software costs and license compliance. This is an IBM tool for identifying software inventory, measuring software use activity, and automatically linking complex license entitlements, thus enabling IT to align software spending with business priorities. Specifically, this tool:

- ▶ Helps IT proactively manage and verify increasingly complex software license compliance tasks, and reduces unnecessary license fees by identifying software inventory with low or no use activity
- ▶ Enables the monitoring of software use trends, therefore assisting you in budgeting for software with a focus on optimal software migrations, changes in licensing, data center consolidations, outsourcing and in-sourcing events, mergers and acquisitions, and disaster recovery planning
- ▶ Facilitates in the preparation of contract negotiations by providing a complete view of software deployed across the enterprise
- ▶ Helps generate cost savings by automating the manual data collection process needed for license compliance audits, redundant software cost control, contract negotiations, and budget planning
- ▶ Enhances the charge-back process by allocating expensive, low-use software to the appropriate department
- ▶ Supports multiple operating systems, such as AIX®, HP-UX, i family, Linux, Solaris (Sun Microsystems), and Windows

For more details, see IBM Tivoli Asset Management for IT Portfolio Overview at:

<http://www.redbooks.ibm.com/abstracts/sg247376.html?Open>

4.3.3 Tools that facilitate software product compatibility

The IBM software product portfolio contains a broad array of products designed to be used to construct scalable, robust solutions to complex problems. Given the large software product portfolio at IBM, we are often asked how we can so

quickly determine which products work together and what operating systems the products support. The Software Product Compatibility Report is a new tool designed to allow our clients to quickly and easily generate custom reports about compatible IBM software combinations. The tool is available free of charge at:

<http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.html>

Using this tool, you can create reports about the compatibility of a product with regard to supported operating systems, prerequisite software, and virtualization environments. Additionally, you can use the tool to tailor graphical reports that define the end of service dates for a set of products.

Each report contains a date-time stamp for the date and time the database for the tool was last updated. The database is updated regularly to reflect combinations that are currently supported. This tool was created to complement existing InfoCenters (see, “IBM Product Information Centers” on page 134). The support shown in the reports generated by this tool might require a specific maintenance for the products.

Figure 4-8 on page 82 is a snapshot of the types of reports provided by this tool.

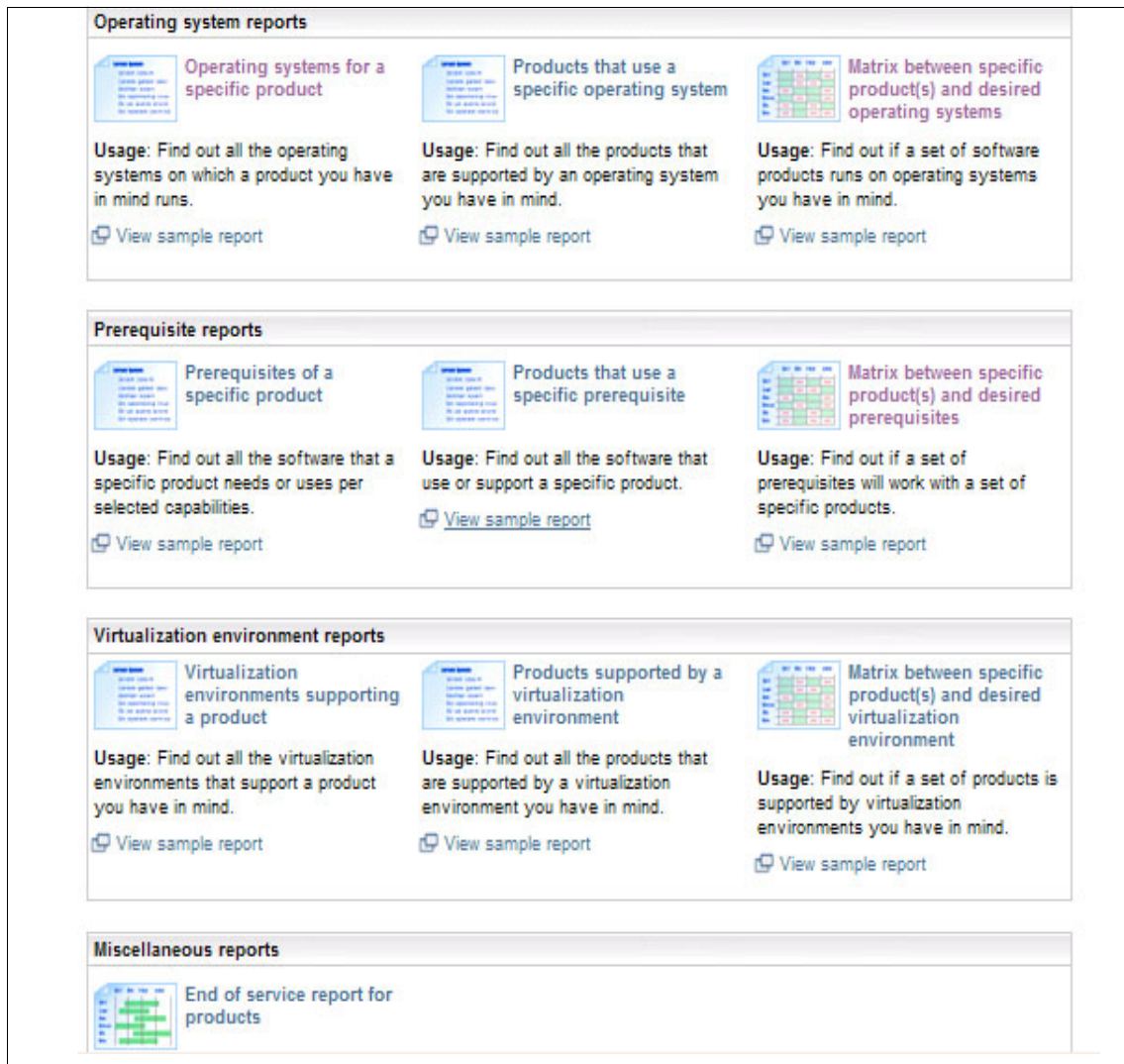


Figure 4-8 The IBM Software Product Compatibility report tool provides multiple reports

Operating system reports


Operating system reports are designed to answer customer questions regarding product compatibility with a set of operating systems. This tool contains three reports from which you can explore relationships from a product or operating system perspective. The operating system reports are:

- ▶ Operating systems for a specific product
- ▶ Products that use a specific operating system

- A matrix between specific products and a desired operating system

The *Operating Systems for a Specific Product* report generates a report from the product perspective. In Figure 4-9, the user entered the partial product name, “WebSphere Application,” clicked search, and selected the product and version of interest from the search that product and version is compatible.

Operating System Reports




- User questions answered:**
 - Will these software products run on the operating systems used in your business
 - Which operating systems are supported by a software product you are interested in for a particular business
 - Which software products run on an operating system you are interested in for a particular business

Which operating systems are supported by a software product you are interested in for a particular business?

Select the product you are interested in

Find the product you are interested in using the search facility below. Select the product from the search results. A version (*) must be selected for the selected product.

Enter a full or partial product name:

 Search

Search results:

- WebSphere Application Server
- WebSphere Application Server - Express
- WebSphere Application Server Community Edition
- WebSphere Application Server Feature Pack for Web Service
- WebSphere Application Server Feature Pack for XML
- WebSphere Application Server Hypervisor Edition
- WebSphere Application Server Hypervisor Edition for AIX

Select a version:


 Submit

Figure 4-9 Sample Operating System report

The second operating system report, *Products that use a Specific Operating System*, is similar to the *Operating Systems for a Specific Product* report. However, the report is generated from the perspective of the operating system, by listing the products that use a specific operating system. To generate this report, you select a platform, operating system, version, and hardware, with results displaying as shown in Figure 4-10 on page 84.

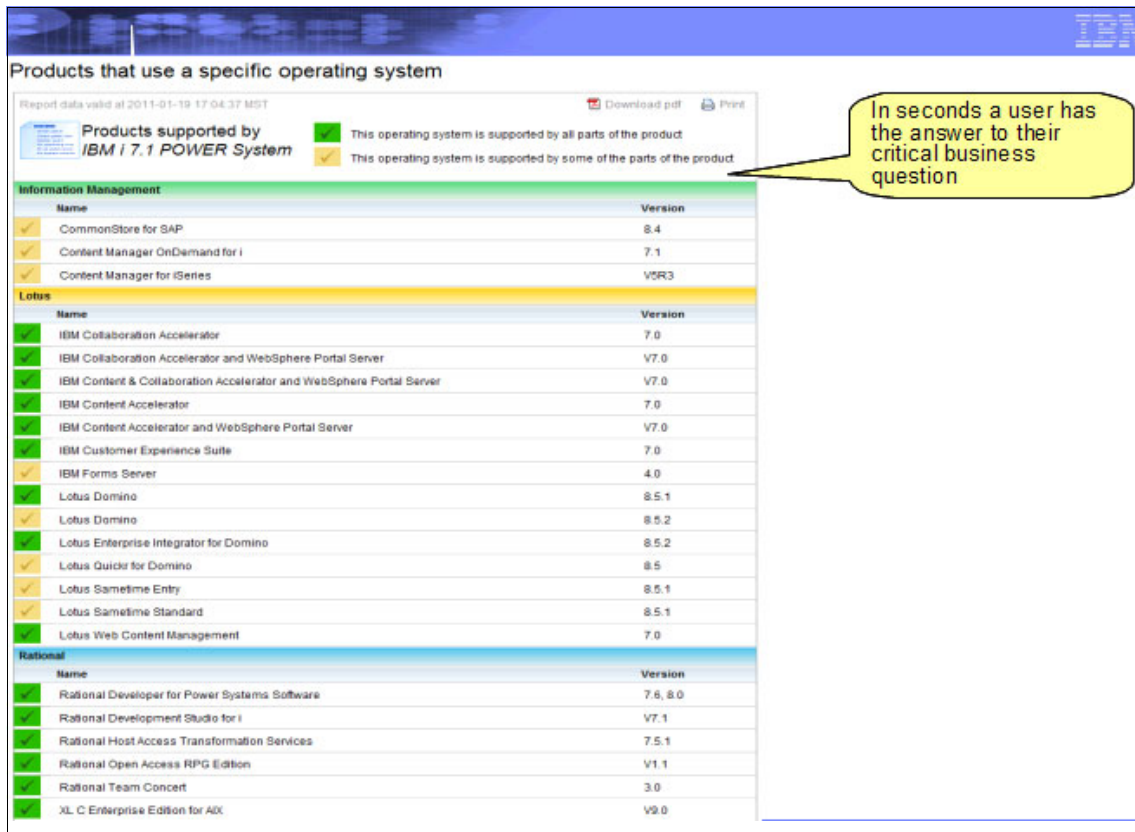


Figure 4-10 Selecting values for a report on Products that use a Specific Operating System

The third report, the *Matrix Between Specific Products and the Desired Operating System* report, is designed to allow you to construct a report based on a custom list of products and the operating system of interest. Here, enter the products and operating system as depicted in Figure 4-9 on page 83 and Figure 4-10. Certain IBM products contain components that are deployable to servers, desktops, and agents or endpoints. As shown in Figure 4-9 on page 83, you can list the products and the desired operating system compatibility details for each deployment unit. Figure 4-10 captures the matrix report generated using the products and operating system as sample input. The reports are designed to allow you to determine what works together at a glance.

Prerequisite reports

Prerequisite reports are designed to answer questions about product compatibility with a set of prerequisites. Similar to the *Products that use a Specific Operating System* reports, this tool contains three reports about

prerequisites. Here, you can explore prerequisite relationships from the product or prerequisite perspective. Those three reports are:

- ▶ Prerequisites of a Specific Product
- ▶ Products that use a Specific Prerequisite
- ▶ Matrix Between Specific Products and Desired Prerequisites

For the Prerequisites of a Specific Product report, you locate the product and version of interest. The report lists all of the prerequisite software products. You can filter the list based on the capabilities provided. Mandatory capabilities are product prerequisites. Optional capabilities are the elective, supported software that is defined for the product.

The Products that use a Specific Prerequisite report lets you list all of the IBM software that use or support a specific product. The tool generates a report containing the software that uses or supports a specific product.

The Matrix Between Specific Products and the Desired Prerequisites report allows you to construct a report based on a custom list of products and prerequisites planned for use. In essence, customers use this report to determine if a set of prerequisites will work with a set of specific products. Figure 4-11 on page 86 shows the sample matrix between specific products and a desired operating system.

The report output shows:

- ▶ Prerequisites support for each product
- ▶ Prerequisites that are not applicable for each product
- ▶ Prerequisites that do not support the each product

Prerequisites Reports



• User questions answered:

- Which related software is supported by a software product you are interested in
- Which software products use a particular software product you are interested in for a particular business
- Are these related software products supported by the software products used in your business

Which related software is supported by a software product you are interested in?

Select the product you are interested in

Find the product you are interested in, using the search facility below. Select the product from the search results and select a version (*). By default, this report will show all the related software products — you may filter them based on the types of capabilities they provide.

Note: The support shown in the generated report may require a particular maintenance or modification level for the products.

Enter a full or partial product name: Websphere Application Server

Search

Search results:

- WebSphere Application Server
- WebSphere Application Server - Express
- WebSphere Application Server Community Edition
- WebSphere Application Server Feature Pack for Web Service
- WebSphere Application Server Feature Pack for XML
- WebSphere Application Server Hypervisor Edition
- WebSphere Application Server Hypervisor Edition for AIX

Select version: 7.0

Mandatory capabilities:

- ☐ Web Browsers
- ☐ Web Servers

Optional capabilities:

- ☐ Databases
- ☐ JDBC Drivers
- ☐ JMS Providers
- ☐ LDAP Servers
- ☐ ORBs
- ☐ Product Specific or Mixed Content
- ☐ Security Management

Submit

Matrix between specific product(s) and desired operating systems

retw

Report data valid at 2011-01-10 13:02:24 MST

Download pdf Print

Compatibility matrix software/operating systems

	Your Server OS	Your Agent/End-point OS	Your Desktop OS
<input checked="" type="checkbox"/> All product components support the operating system <input checked="" type="checkbox"/> Some of the product components support the operating system <input checked="" type="checkbox"/> Operating system is not supported by this product <input checked="" type="checkbox"/> Operating system is not applicable to the product	1 AIX 6.1 POWER System	1 AIX 6.1 POWER System	1 AIX 6.1 POWER System
The Products you are interested in	1	1	1
Lotus Connections 3.0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lotus Quickr for WebSphere Portal 8.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lotus Sametime Standard 8.5.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Report data valid at 2011-01-10 13:02:24 MST

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The support shown in this report may require a particular maintenance for the products.
For further information please visit the [IBM Software Support web page](#).

Figure 4-11 Sample Matrix Between Specific Products and the Desired Operating System report

Server virtualization environment reports

IBM established a set of virtualization environments that are supported across its multi-platform product portfolio for servers. Virtualization environments consist of the operating system and the virtualization technology. The *Server Virtualization Environment* reports help clients in planning strategic deployment environments for applications. *Server Virtualization Environment* reports answer questions about product compatibility with a set of virtualization environments. Similar to the operating system reports, this tool contains three reports about virtualization environments, from which you can explore virtualization environment relationships from the product or virtualization environment perspective. The three reports are:

- ▶ Server Virtualization Environments Supporting a Product
- ▶ Products Supported by a Server Virtualization Environment
- ▶ Matrix Between Specific Product(s) and the Desired Server Virtualization Environments

For the *Server Virtualization Environments Supporting a Product* report, you enter the product name, click search, and select the product and version from the search results. The tool generates the report, listing the compatible virtualization environment for that product and version. In Figure 4-12 on page 88, the product selected is DB2® Enterprise Server Edition. These reports are designed to allow users to determine what works together at a glance.

Virtualization Environment Reports



• User questions answered:

- Which virtualization environments are supported by a software product you are interested in
- Which software products are supported by a virtualization environment you are interested in
- Will these software products run on the virtualization environments used in your business

Virtualization environments supporting a product

Report data valid at 2010-10-30 10:58:09 MLT

Download pdf Print

Virtualization environments that run
DB2 Enterprise Server Edition 9.7

HP Integrity Virtual Machines (IVM) 4.1			
Name	Edition	Version	Hardware
HP-UX		11i v3	IA64

HP-UX Virtual Partitions (vPars) any version			
Name	Edition	Version	Hardware
HP-UX		11i v3	IA64

IBM PR/SM any version			
Name	Edition	Version	Hardware
Red Hat Enterprise Linux (RHEL)	Advanced Platform	5.0	System z
SUSE Linux Enterprise Server (SLES)		10.0	System z
SUSE Linux Enterprise Server (SLES)		11.0	System z

IBM PowerVM Hypervisor (LPAR, DPAR, Micro-Partition) any supported version			
Name	Edition	Version	Hardware
AIX		5.3	POWER System
AIX		6.1	POWER System
Red Hat Enterprise Linux (RHEL)	Advanced Platform	5.0	POWER System
SUSE Linux Enterprise Server (SLES)		10.0	POWER System
SUSE Linux Enterprise Server (SLES)		10.0	System z
SUSE Linux Enterprise Server (SLES)		11.0	POWER System

Figure 4-12 Selecting values for the Server Virtualization Environments Supporting a Product report

The *Products Supported by a server Virtualization Environment* report lets you determine which products are supported by a given server virtualization environment.

End of service report for products

The *End of Service Report for Products* answers your questions about when service will end for particular products. This report contains detailed information about the available IBM Software Support Lifecycle Policies for a product set, so that we can help customers realize the full value of their IBM software products.

Locate the products of interest using the search facility, select the product and version from the search results, and set a desired starting quarter/year. A sample report is shown in Figure 4-13 on page 89.

End Of Service Reports



- **User question answered:**
 - What are the end of service dates for the products you are interested in
- Report displays the service window of the products
- Report indicates which service windows are officially announced by IBM and which are estimated

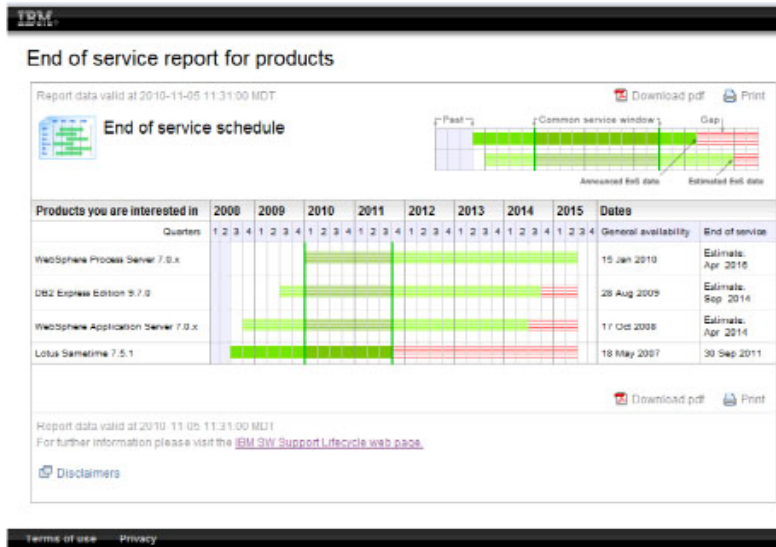


Figure 4-13 Sample End of Service Report for Products

The End of Service Report for Products lists the service windows that are officially announced by IBM and those that are estimated. Finally, the span of time during which all products on your list are supported is also indicated as the common service window.

Globalization report

In the interest of internationalization, you might want to know which languages are supported by our products. See Figure 4-14 on page 90.

Globalization Report



- **User question answered**
- What translations are available for the products you are interested in
- Targeted roll-out -- April 2011

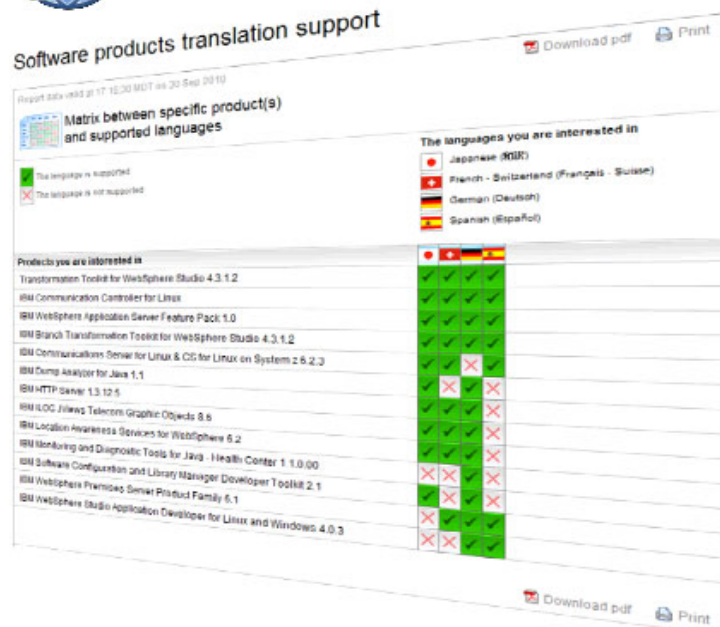


Figure 4-14 The Globalization report describes the languages that are supported, by product

4.3.4 Self-help tools

Self-sufficiency is another software deployment best practice from IBM. IBM focused a great deal of energy on providing you with the tools needed to be self-sufficient. Most of this work occurred in the problem management and in the software fulfillment space.

Problem management

IBM provides an extensive set of self-help tools for problem reporting, management, and tracking.

For more information, visit:

<http://www.ibm.com/support>

License acquisition and entitlement with Passport Advantage

IBM offers two license acquisition and maintenance programs: Passport Advantage and Passport Advantage Express. Passport Advantage is designed

for larger enterprises. Passport Advantage Express is designed to meet the needs of small or medium-sized businesses. Passport Advantage is the IBM comprehensive software licensing and software maintenance program. It is a global program, designed to save you money at every stage of your software acquisition and use. Passport Advantage is the most flexible and cost-effective way for you to reap the benefits of new releases of the latest technology and technical support to keep your business up and running, plus obtain volume pricing for significant software purchases. It can help to lower your acquisition and administrative costs, facilitate migration to new platforms, boost productivity, and increase profits.

For more information, visit the Passport Advantage Home at:

<http://www-01.ibm.com/software/support/pa.html>

Software maintenance using Passport Advantage

IBM Software licenses purchased using Passport Advantage have an associated S&S program that complements your IBM Software purchases. It includes both product upgrades and technical support. It also fosters successful software deployments. You can upgrade to new releases and new versions as the needs of your business dictate. Our technical support team helps keep your users up and running wherever they are in the world. This is our way of making sure you are covered with the technical support you need and your way of getting an increased return on your IBM investment of a total software solution.

For more information, see Chapter 7, “The value of maintaining IBM Software Subscription and Support (S&S)” on page 143, or visit:

<http://www.ibm.com/support>

4.4 Software deployment accelerators

Accelerators can contribute to successful software deployment throughout the entire software deployment life cycle. In this chapter we discuss the most important accelerators that are readily available from IBM.

The accelerators discussed are:

- ▶ Programs that you can execute in collaboration with IBM to help plan, understand, configure, or install software solutions. These programs are usually performed as a service, but free of charge in most cases. The following programs are discussed:
 - 4.4.1, “Proof of Technology ” on page 92
 - 4.4.2, “Client lab advocacy program” on page 94

- 4.4.3, “IBM solution review” on page 97
- 4.4.4, “The software Accelerated Value Program ” on page 98
- 4.4.5, “Business and IT alignment” on page 101
- ▶ Tools that can assist you in software deployment, discussed in 4.3, “Tools” on page 71.
- ▶ Guidances to help you in a better overall planning, design and architecture of enterprise solutions and the role of software products therein. This is discussed in 4.5, “Guidances” on page 104.
- ▶ Education helping you to plan, configure, install and use the software. See 6.1, “What this chapter is about” on page 130.

4.4.1 Proof of Technology

A Proof of Technology (PoT) is a hands-on workshop in which participants execute a number of predefined scenarios that demonstrate the capabilities of a product or suite of products. PoTs can be different in length, anywhere from one-half to two days, depending on the product. More complex PoTs can be longer. PoTs are free of charge to IBM clients and prospective clients.

When do you need a PoT

A PoT can be helpful in gaining a better understanding of the functionalities and usability of a product. After having read product brochures and viewing presentations and demos on a product, participating in a PoT is the next step. PoTs are conducted by subject matter experts (SMEs), so they provide an excellent opportunity to discuss complex technical issues related to the product, specific to your organization.

Requesting a PoT

There are two ways to request and attend a PoT, talk with your IBM representative or attend a prescheduled PoT. Select the method most convenient for you.

Talk with your IBM representative

Inform your IBM representative of your interest in attending a PoT. Your IBM representative will check the availability of PoT events and discuss with you how and when to deliver the PoT.

Attend a prescheduled PoT

1. Go to the IBM Events page at:
<https://www-950.ibm.com/events>
2. View a list of event types, as shown in Figure 4-15 on page 93.

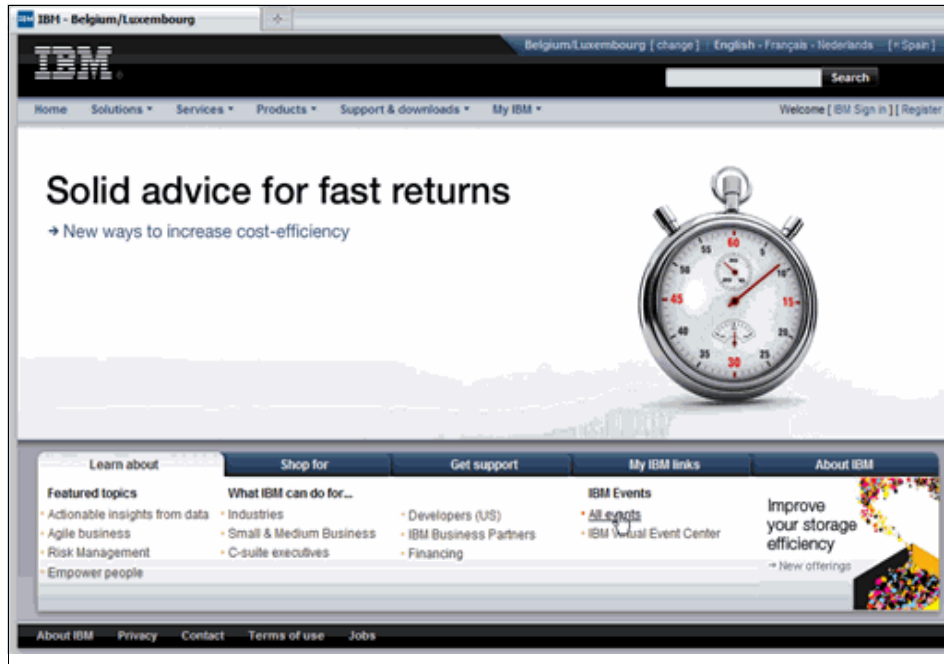


Figure 4-15 The web page for IBM Events

3. Click a category of interest, for example, IBM General Business Events, to display a list of available PoTs in that category. The designation “PoT” is included in titles, where applicable.

The browser automatically detects your country. To select another country, use the [change] link that displays at the top of all Event pages, including that shown in Figure 4-15.

4. For the PoT of interest, follow the instructions to register or arrange for a personal delivery of a PoT at your organization.

How PoTs are delivered

Prescheduled PoTs are typically conducted at any of the IBM Technical Exploration Centers around the world. Most countries have an IBM Technical Exploration Center. If you have a group that is interested in a particular PoT, we can organize a PoT for delivery at your organization, depending on available infrastructure and classrooms. In most cases, the required infrastructure consists of workstations with VMware images of the required products. Occasionally, connectivity with a mainframe host is used. More and more PoTs are executed in “sandbox” format, using the terminal server concept. You can use the product, hands-on, and consider how it will best be used your organization.

The next step

PoTs follow common scenarios and highlight the most significant functions of the solution. At the conclusion of the PoT, you will have a general understanding of the functionality of the product. However, in most cases the PoT event will not provide enough evidence that the product can address the issues specific to your organization. The next step is a Proof of Concept (PoC) event, in which you further explore the product specific to your environment.

A more extensive, Proof of Concept service engagement can be provided as a risk mitigation tool. For details about PoC, fee-based engagements, see 4.4.2, “Client lab advocacy program” on page 94.

4.4.2 Client lab advocacy program

The Client Lab Advocacy Program is a premium, post-sales relationship program between selected clients, our product development organization, and select IBM Business Partners. The objective of this program is to help you to extract the *maximum value* from your software investment and explain our future plans. In return, we gather feedback from you that can steer our development plans and priorities.

The lab advocate provides information to you about our product futures and serves as a connection point to our product development organization. This program is currently offered for all of the IBM software brands, including WebSphere, Lotus Information Management, Rational, and Tivoli.

The relationship sustained by the Client Lab Advocacy Program expands the lab advocate's knowledge about your IT challenges and requirements. It also gives you a voice in the development of our future products and increases your knowledge of our long-term strategies.

How the program works

The Client Lab Advocacy Program is specifically designed for clients with whom we have had a close, vested relationship over the previous 12 months. At the beginning of the program, you are assigned a lab advocate for a key product in your environment. The lab advocate typically works with your architecture, design, solution, and delivery leads on new projects, best practices, migration, and upgrade plans to extract the maximum value from your software investment.

The Client Lab Advocacy Program is in effect for one year. Renewals for additional one year terms require renewal of product licenses and a renewal of the agreement to participate.

Lab advocate

The lab advocate works with the IBM account team and acts as a direct link between you and the IBM software development organization. The advocate provides us with perspectives from your organization by focusing on understanding your business, IT installations, your needs and expectations, and the use of our products and solutions to ensure high client satisfaction. Lab advocates provide insight into future development plans, address product questions and concerns, and ensure that you are utilizing the capabilities of IBM software products to manage and grow your business today and in the future. By being knowledgeable about your IT structure and business needs, the advocate, in turn, feeds your key client requirements directly into development for consideration. Multiple advocates can be assigned to a client, based on the scope of the client's business needs.

Qualifications of the lab advocate

Those who serve as lab advocates are fairly senior members of IBM who are highly skilled in their area of expertise. Typically, a lab advocate has stellar business qualities:

- ▶ Is viewed as a leader and team player in an area of expertise
- ▶ Has a rich mix of technical skills
- ▶ Possesses the desire to work with a top IBM client
- ▶ Is resourceful and responsive
- ▶ Has excellent communication skills

Goals of the lab advocate

The goals of the lab advocate are multi-faceted:

- ▶ Enhance your knowledge of the IBM offerings and long-range strategies, our partnership capabilities, and how we can help your business grow
- ▶ Be proactive in broadening their understanding of your environment, requirements, and challenges
- ▶ Assist the IBM account team in clarifying your key requirements to our technical community
- ▶ Develop a long-lasting relationship with you, resulting in greater trust and openness between you and IBM
- ▶ Communicate regularly with you and the IBM account team

Role of the lab advocate

An advocate has extensive product knowledge and is committed to promoting a successful relationship between you and IBM. They engage with you and the IBM client team to provide assistance and serve as an information resource.

The advocate is committed to:

- ▶ Actively engaging with your team for short-term and long-term account plans
- ▶ Understanding your environment in terms of topology and applications, and in future goals and directions
- ▶ Participating in briefings on trends and directions
- ▶ Providing assistance with migration, architecture, performance, and configuration
- ▶ Exchanging information with the IBM lab and client team and validating requirements and solutions
- ▶ Determining, with the IBM client team, the appropriateness of teleconferences and on-site visits with the client

The role of the advocate does *not* include serving as:

- ▶ A remote software engineer
- ▶ An alternative to IBM fee-based service offerings
- ▶ A critical situation manager
- ▶ A requirements solicitor, although the lab advocate provides input to the IBM development organization, based on your feedback
- ▶ A pre-sales support offering

Inner circle program

The Inner Circle Program is a specialized program offered by the WebSphere brand. It is a two-year program, based on a close, vested business relationship over the previous 12 months. This program provides you with an IBM executive advocate, a lab advocate, and an invitation for three persons from your organization to attend the private WebSphere Inner Circle at the Annual Impact Conference.

In this program, your Inner Circle executive advocate maintains a long-term relationship with a member of your IT leadership team. The executive advocate meets with and discusses client projects and issues, shares broader IBM and WebSphere plans and strategies, and can serve as a connection between the IBM and WebSphere development and business executive teams.

In addition to the executive advocate, one or more technical Inner Circle lab advocates are assigned for the key WebSphere products in your environment. Lab advocates typically work with client architecture, design, and solution and delivery leads on new projects, best practices, migration, and upgrade plans to help you extract the maximum value from your investment. Technical Inner Circle

lab advocates can provide information about product futures and are a connection point to the WebSphere development laboratories.

As a participant in the Inner Circle Program, you are also invited to participate in the Annual Inner Circle Conference event and other Inner Circle update calls and briefings throughout the year.

When the two-year program is concluded, a renewal for an additional two years requires an additional license purchase and a renewal of the agreement to participate.

4.4.3 IBM solution review

IBM has several processes in place to improve project success based on IBM technology. The Solution Review is one of these. Also known as the Technical and Delivery Assessment, the Solution Review is available for:

- ▶ Hardware configuration and architecture reviews
- ▶ Software configuration and architecture reviews
- ▶ Services scope of work and project plan reviews

Complex projects can require a combination of these reviews, including dependencies between them. For these projects, we provide an Integrated Technical Review. This is undertaken when highly complex issues, such as cross-brand and cross-geographies, require a project-wide, holistic view. (For more information about the Integrated Technical Review, contact your IBM representative.)

The introduction of the Solution Review came about to minimize technical risks for projects that we prepare or, when applicable, that are prepared by IBM Business Partners or Systems Integrators using IBM technology. Typically, we suggest that a Solution Review take place when additional IBM products are added to an existing IBM product portfolio, or when a purchase represents a substantial change to your environment.

The focus of the solution review

We prepare a Solution Review for your deployment project with a focus on identifying:

- ▶ Solution architecture inhibitors
- ▶ The solution and solution implementation risks
- ▶ A risk mitigation plan

Each of these topics is evaluated by your IBM architect or specialist, the solution design team, and the Solution Reviewer. With input from these professionals, the

Solution Review provides valuable information for deploying your software successfully.

The process

The process of defining a Solution Review begins with a Solution Design and contains several check points to identify risks early on in the design process for quality risk mitigation. By following the guidance of the Solution Review, you can be confident that the software can be deployed consistent with your requirements.

Further, the Solution Review process can be complemented by a Readiness Plan that addresses implementation and operations risks of the project. For details of the Readiness Plan, see 2.3.2, “Readiness plan” on page 29. We can also include a determination of whether your project teams have adequate plans in place, in the case of unidentified implementation risks occurring.

For cases for which your solution has been designed by an IBM Business Partner or Systems Integrator, the partner or integrator will likely follow their own Solution Review and Design Review processes. If needed, IBM can provide the Solution Review to the Business Partner or Systems Integrator for you.

Additional information

For additional information, consult:

- ▶ Your IBM representative for information about the Solution Review process for Business Partners and System Integrators applicable in your country
- ▶ Your Business Partner or Systems Integrator directly for more information about their Solution Review process and Solution Design documentation
- ▶ Your IBM representative for more information about IBM Solution Review offerings

4.4.4 The software Accelerated Value Program

The mission of the software Accelerated Value Program is to unlock the value of your IBM software investment by delivering enhanced technical advisory offerings that maximize your Return On Investment (ROI). This offering applies to the IBM software product families, including Business Analytics, Information Management, Industry Solutions, Lotus, Rational, Tivoli, and WebSphere.

For further details about Accelerated Value Program, visit:

<http://www-01.ibm.com/software/support/acceleratedvalue/productfamily.html>

Participating in the Accelerated Value Program is a proactive way of building a trusted, long-term partnership with your IBM experts. It provides you with a single point of contact, access to technical experts, knowledge-sharing activities, standard processes, best practices, and more, to provide continuous growth for your organization.

The Accelerated Value Program provides a level of IBM middleware support that is significantly greater than standard technical support arrangements. Our staff is dedicated to you as the customer. Proactive and reactive services are provided, and Accelerated Value Program teams coordinate the availability of all IBM resources.

Benefits of the Accelerated Value Program

Our program gives you time to address your business needs because it focuses on your IT environment by delivering proactive support, knowledge and skill sharing problem management, and much more.

Proactive support

We deliver real support in the areas of:

- ▶ Planning, upgrades, and migration
- ▶ Potential problem identification and prevention
- ▶ Early notification of potential critical situations
- ▶ Best practices sharing
- ▶ The Accelerated Value Program, which builds upon the support offered by the IBM Subscription and Support (S&S) program

Knowledge and skill sharing

We offer the technical knowledge to improve your business in the areas of:

- ▶ On-site technical activities, such as discussions led by IBM engineers on specific subjects, technologies, and skill areas
- ▶ Staff coaching, workshops, and guidance
- ▶ Invitations to remote briefings, summits, and seminars
- ▶ Technical conference calls delivered by IBM SMEs
- ▶ Access to the Accelerated Value Program dedicated and customizable web portal:

<http://www.ibm.com/software/support>

Problem management

We provide assistance in managing problems when they arise in the areas of:

- ▶ Emergency on-site assistance
- ▶ Priority call handling and assignment of problem management records to technically senior analysts
- ▶ Assistance in coordinating technical issue solutions
- ▶ Reporting on support issues and trends
- ▶ Escalation management
- ▶ Single point of contact for most technical issues, without regard to brand

Operational and technical guidance

Our areas of expertise include research on interoperability, architecture, and performance, in addition to guidance on installation, configuration, and trend analysis.

Best practices

We learn about your IT environment, infrastructure, and people. Then, we help you to avoid known software defects and provide recommendations to help avoid known issues.

Productivity enhancement

Assistance with problem management, including priority escalation, reporting on support issues, and personalized trend analysis.

Your single point of contact

The Accelerated Value Program provides an Accelerated Value Leader as your single point of contact. The Accelerated Value Leader provides strategic advice and assists you with projects in your software infrastructure. That person also follows up with your problem management records, globally, and provides regular updates.

Your Accelerated Value Leader can be assisted by one or more brand-focused, Accelerated Value Specialists. An Accelerated Value Specialist is assigned to a specific area of technology and provides direct support and assistance with technical questions from you and your field staff.

Why choose the Accelerated Value Program

The Accelerated Value Program helps our clients to achieve a faster time-to-value and a lower total cost of ownership. It provides an overall faster time to problem resolution, and proactive assistance with problem prevention. In

line with one of the goals that we have at IBM, participation in the program promotes a lasting partnership between IBM and you.

For more information

Learn why our clients continue to choose this program. A case study from one of our clients is documented in the article, *Value Proposition for IBM Software Accelerated Value Program: Quantifying the Cost/Benefit Case* from the International Technology Group. This article is located at:

<http://w3.ibm.com/software/x1/portal/content?synKey=D467264L67453V27>

More about the key features of the world-class, enterprise-level support available through the IBM Software Accelerated Value Program is located at:

- ▶ http://www-01.ibm.com/software/support/acceleratedvalue/av_enterprise.html
- ▶ <http://www.ibm.com/software/support/acceleratedvalue>

4.4.5 Business and IT alignment

Business and IT Alignment is an IBM offering for a client and IBM joint IT development plan. It is based on The Open Group Architecture Framework enterprise architecture methodology and provides identification of IT projects and an IT project roadmap.

At the end of the Business and IT Alignment engagement, the client will be able to answer the following questions:

- ▶ How ready is my IT Environment* to face the business initiatives driven by our strategy?
- ▶ What is the IBM suggested future IT architecture?
- ▶ What is the roadmap for advancing from the current architecture to the future architecture?
- ▶ What are the next steps?

Figure 4-16 on page 102 depicts some of these considerations.

Enterprise Architecture Evaluation

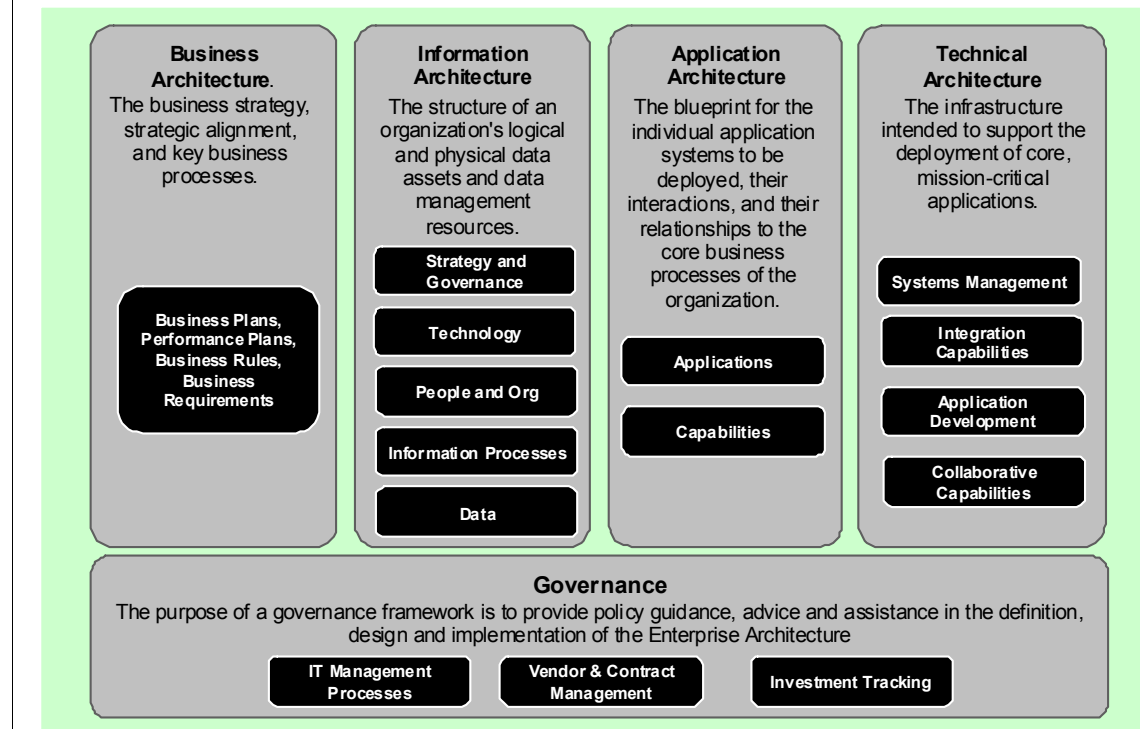


Figure 4-16 Enterprise architecture evaluation

Business and IT Alignment, illustrated in Figure 4-17 on page 103, provides a value both to you as the client and to IBM. It is a structured approach for maturity assessment in different domains, from the architecture to process and organization perspectives, and provides an excellent base for defining project priorities and your project roadmap. This information helps vendors, such as IBM, to better understand when, where, and how IBM can support you, which reflects on the quality of support you can expect from IBM. You can also expect IBM resource planning will assure that the right resources with the right skills are available when you need them.

The methodology of this assessment usually takes approximately six-to-eight weeks and has four distinct stages:

- ▶ Architectural evaluation
- ▶ Business initiatives analysis
- ▶ Gap analysis
- ▶ Roadmap elaboration

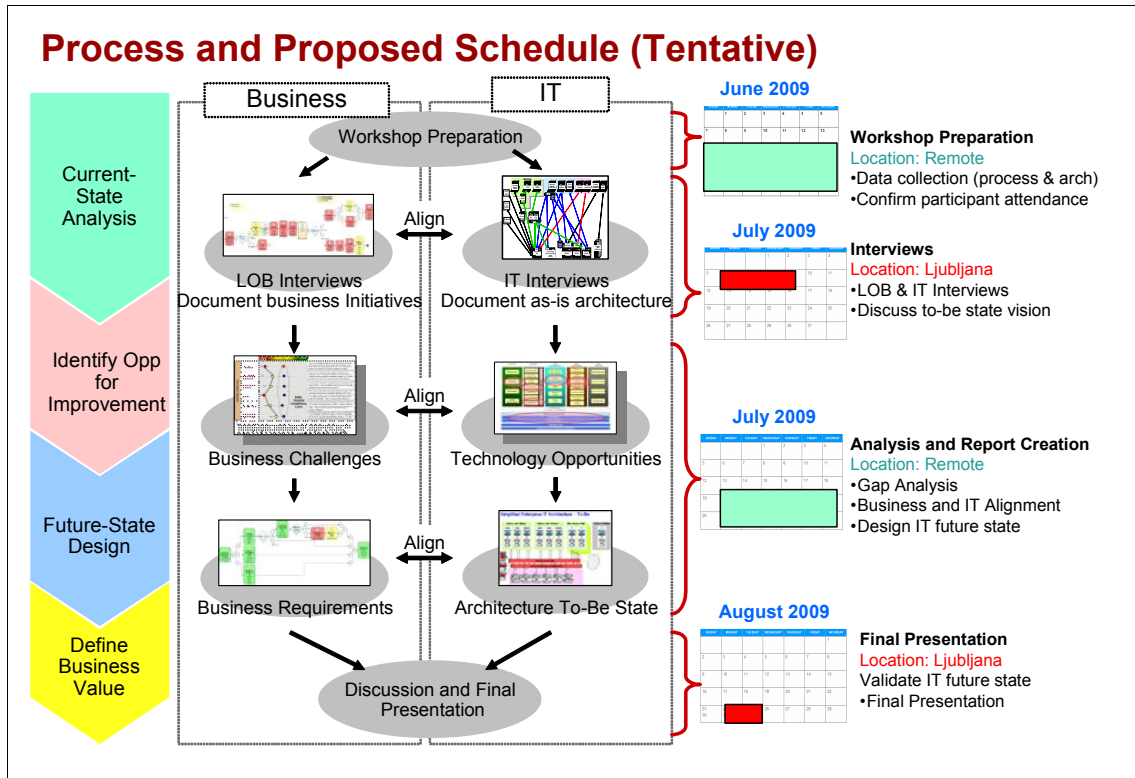


Figure 4-17 Business and IT alignment

The architectural evaluation is based on a comparative analysis of the client's architecture with two reference models:

- Enterprise architecture
- Industry reference architecture

The second stage of this methodology includes an analysis of the technical requirements within the context of current and future business initiatives.

The third stage combines the two initial stages to perform a gap analysis that establishes priorities, business value against gap reduction, and capabilities requirements.

Finally, a roadmap is performed to present a series of actions with the objective of reducing architectural gaps and maximizing the business value obtained from IT.

Workshop preparation is important for an efficient workshop delivery. There are a lot of workshop preparation activities in which the client and IBM are involved, such as:

- ▶ Agreement among all parties about the goal, dates, and locations of workshops and the final presentation
- ▶ Obtaining commitment from the crucial persons to participate in the workshop
- ▶ The client performing basic data collection for use at the workshop and for initial analysis by a Business and IT Alignment expert

To achieve the best results from the interviews, it is important to have enough preparation time. This phase usually takes two-to-three weeks.

A final presentation is made to all client stakeholders who participated in the engagement, including the proposed action plan. The purpose of the final presentation workshop is to agree on an action plan and the next steps.

The following list contains typical deliverables:

- ▶ Main conclusions (one or two main sentences)
- ▶ A prioritized list of the main IT gaps that impact your business initiatives
- ▶ A brief explanation of our reasoning
- ▶ A prioritized list of recommendations
- ▶ The proposed Project Roadmap and next steps

4.5 Guidances

This section discusses the following two solutions:

- ▶ Frameworks, models, and other reusable assets
- ▶ IBM Global Solution Centers

4.5.1 Frameworks, models, and other reusable assets

One of the accelerators that benefits software deployment is reusable assets. Examples of these are frameworks, components, and various types of models. Ideally these reusable assets are industry-specific and built up over time using experience in the industry.

IBM Industry Frameworks is a set of frameworks that combines the unmatched capabilities of IBM software with industry-specific solution assets and best practices that are configured to meet the unique challenges and business needs of an industry.

Each framework provides IBM market-leading middleware capabilities in an industry context, while creating an agile foundation for future growth. IBM Industry Frameworks is the primary software platform for IBM Industry Solutions, accelerating time-to-value and payback and simultaneously lowering project cost and risk.

The main benefits of the IBM Industry Frameworks are:

- ▶ Speed of implementation with repeatable architectural patterns and accelerators
- ▶ Flexibility to progressively transform to a simplified architecture, one project at a time
- ▶ Choice of how to get started and who to partner with for business capabilities
- ▶ Cost reduction through the re-use of services and assets and through faster implementation
- ▶ Alignment of business and IT priorities for more effective results from solution implementation

IBM Industry Frameworks exist for almost all industries:

- ▶ Banking
- ▶ Chemical and petroleum
- ▶ Electronics, automotive and aerospace and defense
- ▶ Energy and utilities
- ▶ Government
- ▶ Healthcare and life sciences
- ▶ Financial markets
- ▶ Insurance
- ▶ Media and entertainment
- ▶ Retail and consumer products
- ▶ Travel and transportation
- ▶ Telecommunications

The extent and exact content of each framework varies by industry. Let us see what the IBM Industry Framework looks like for the banking industry.

Framework example: Banking

The *IBM Banking Industry Framework* provides a banking-specific software platform for deploying solutions for customer care and insight, integrated risk management, payments and securities, and core banking transformation. It provides industry-specific software extensions, solution accelerators, and best practices to speed the deployment of smart banking solutions at reduced cost and risk. The framework supports open and industry standards. In addition,

applications provided by an ecosystem of framework partners are optimized for the framework middleware.

Customers can get started with a frameworks approach with a project that leverages components of the framework. Over time, project-by-project, customers can move to a simplified, more strategic technology infrastructure to support the changing needs of their business. With each project, customers can realize a return on investment in a short payback period. The frameworks approach supports a practical, progressive approach to transformation. Figure 4-7 on page 74 provides an overview of all the assets and asset types that are available for the banking industry.

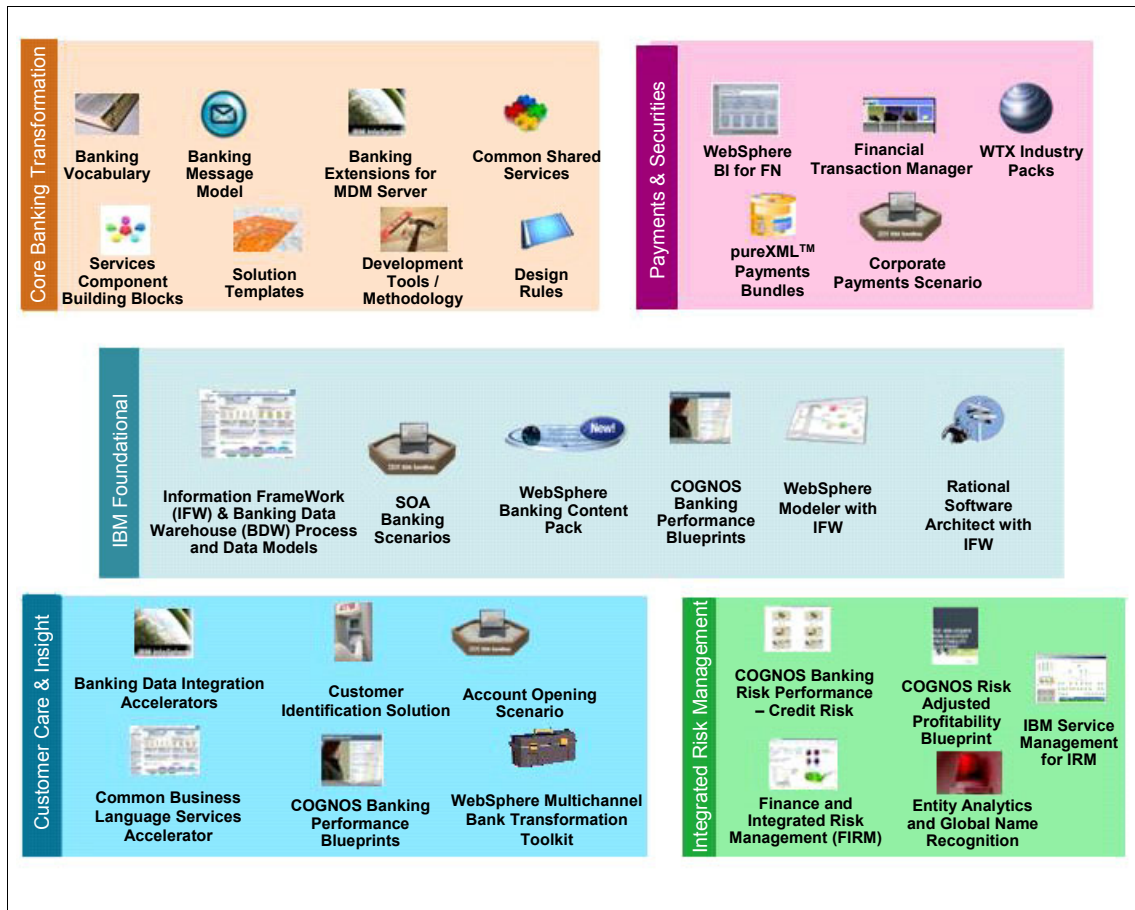


Figure 4-18 Assets and asset types in the banking framework

IBM Industry Frameworks accelerates software deployment

As depicted in Figure 4-18 on page 106, a framework provides guidance in implementing complex solutions, for example, solution templates and the methodology guide you in taking the right steps in designing your new solution architecture and the underlying software architecture. It is here where frameworks can really help in software deployment.

Applying a framework, such as the IBM Industry Framework for banking, ultimately tells you which software products you will need for a given solution design. This is the primary and direct benefit of using an IBM Industry Framework for software deployment.

4.5.2 IBM Global Solution Centers

IBM is instrumental in bridging the gap between business challenges and the deployment of innovative technologies across industries. At our Industry Solution Centers (such as the Global Solution Centers, the IBM Forum La Gaude, Industry and Solution Centers, and Executive Briefing Centers), we discuss and demonstrate several of our methods for integrating high-value industry solutions.

At our Industry Solution Centers, we exhibit several of our solutions to clients and prospective clients. Over time, we have fine-tuned these solutions to produce more efficient results and for applicability to other environments. The Industry Solution Centers are our way of showcasing that these solutions have met some of the toughest business needs among a wide range of industries. Figure 4-19 on page 108 shows an example of an Industry Solution Center framework.

WW Industry Solution Center Framework

Industry Solution Centers
In-depth Industry Solution Architecture & Integration Skills
Bridging the Gap from Business Process to Technology

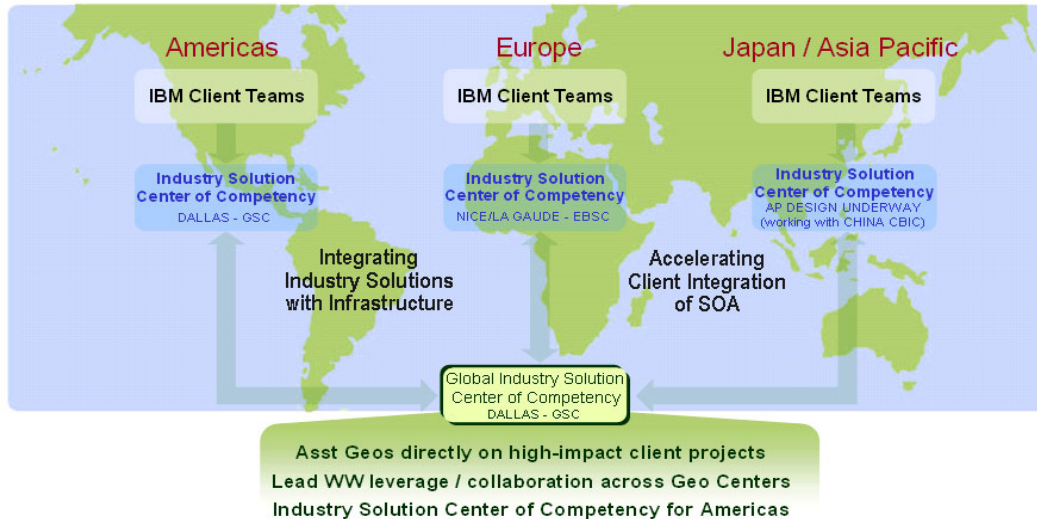


Figure 4-19 Framework of the IBM Industry Solution Center

All client Centers worldwide can be identified within their Center category group. The Client Center category groups are:

- ▶ Executive Briefing Centers

Executive Briefing Centers offer sales organizations a powerful tool to help shorten the sales cycle, grow opportunities, and close deals. Briefings are customized to sales objectives. SMEs provide expertise in product, brand, and services.

- ▶ Industry and Business Solution Centers

Industry and Solution Centers are a broad spectrum of Centers that provide sales support to IBM client teams from early in the sales cycle to delivery, including demos, workshops, Proofs of Concept (PoCs), etc. These Centers offer expertise and capabilities in industry-specific solutions, cross-industry solutions, or both.

► Technology Centers

Technology Centers offer another way to showcase our worldwide Systems and Technology Group SMEs, their technology leadership, and that of our partners in support of the Systems and Technology Group and overall IBM portfolio. These worldwide Systems and Technology Group Client Centers provide access to globally available, large-scale physical infrastructure allowing clients, business partners, and independent software vendors to experience, first hand, how IBM solutions and technologies can add value to their business. A staff of technical professionals, with field and lab experience, provide thought leadership to address a particular business need or challenge, along with the value of our key strategic initiatives, such as Dynamic Infrastructure®, Smart Analytics and cloud computing.

Technology Centers provide global support for all IBM hardware and software products. They architect and design, prove and measure, and validate and review solutions, based on industry requirements, while highlighting IBM technology.

► Worldwide Design Centers

Our worldwide Design Centers are state-of-the-art facilities where certified IT architects and specialists work with clients and Business Partners to analyze, assess, and design IT infrastructure solutions.

For details, email design@us.ibm.com or visit <http://www.ibm.com/systems/services/designcenter>.

► Business Partner Centers

Business Partner Centers are owned by either IBM or an IBM Business Partner.

IBM-owned Centers provide your Business Partners with customized assistance to help build solutions, grow cutting-edge skills, and explore the latest open standards-based and open source technologies. IBM-owned Centers also provide Business Partners with access to IBM technical, marketing, and sales experts, worldwide.

Business Partner-owned Centers offer a consultative approach to solution selling and strategic initiatives. These Centers focus on cross-selling to increase the clothing rate for hardware, software, and services.

► IBM Marketing and Conference Centers

Design, build, and operate an innovative and compelling IBM event and collaboration experience, for clients and partners with distinct competencies, to be run in the client or partner proximity.

► IBM Forum Centers

IBM Forum Centers provide executive-level conference facilities. Experiential solution demonstrations, supported by marketing messaging, and a dedicated staff for logistical, IT/AV, and event management support. This ensures a superior client experience. IBM Forum Centers can be multi-purpose or multi-mission, or for single- and multi-client and Business Partner events.

► IBM Forum Conference Centers

Host executive-level conferences, including single- and multi-client and Business Partner events at the IBM Forum Conference Centers. Marketing messaging and dedicated logistical, IT/AV and event management support ensure a superior client experience.

Figure 4-20 shows a sample of several solutions deployed in our Industry Solution Centers.

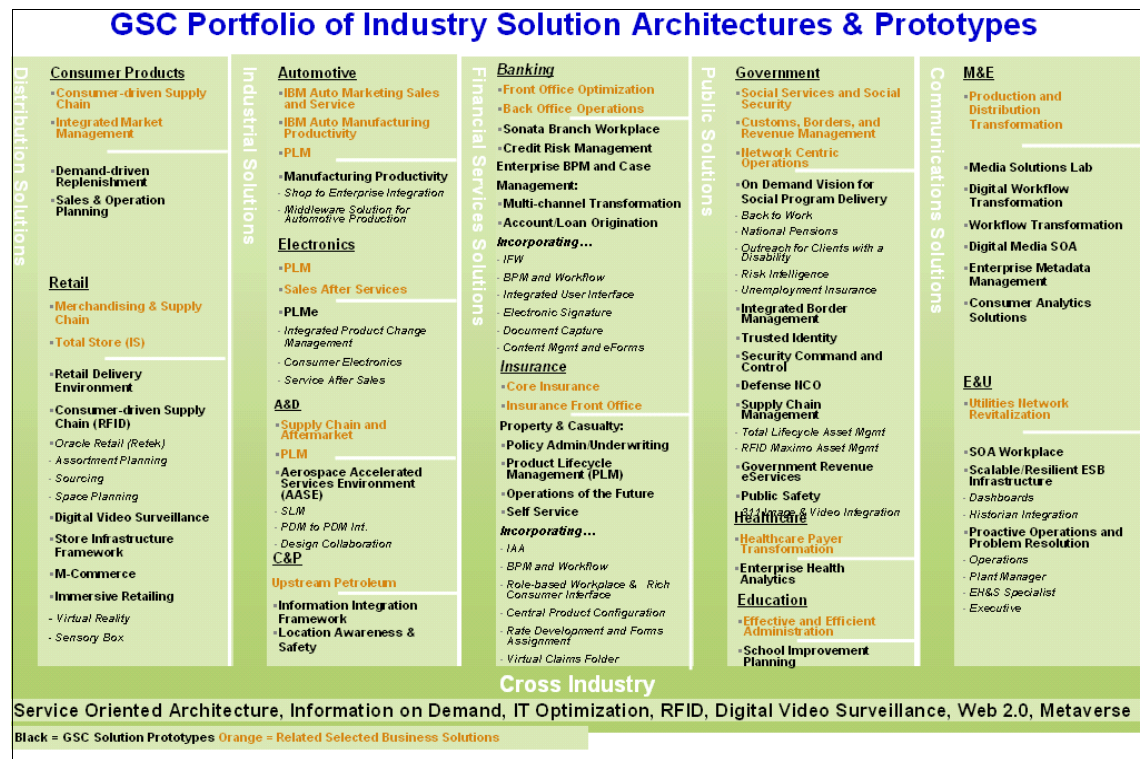


Figure 4-20 Grouped categories at IBM Industry Solution Centers

4.6 Conclusion

Make use of these centers that showcase the best solutions. Use them to receive guidance about architecture solutions for your unique business challenges. Then, consider an architecture workshop at one of our IBM Design Centers. To visit an IBM Industry Solution Center, contact your IBM representative.



Using IBM Services to complement your skills and accelerate value

5.1 What this chapter is about

We discussed the challenges of realizing value from your software purchase in Chapter 1., “Software deployment perspectives and challenges” on page 1 of this publication. We discussed challenges in several categories, including ownership, organizational, and technical challenges. As a whole, this book addresses the best practices, recommended methods, and considerations that can help to address these challenges.

In certain instances, your internal IT organization might not have the required skills or experience to deploy your new software. Or, they might need additional capacity or support to ensure that the new software is not only used, but that it provides the most business value.

More specifically, many IBM services are designed to overcome situations, such as:

- ▶ The project team does not understand the business value of a given product or solution
- ▶ There is not enough knowledge about a product to deploy it successfully
- ▶ Deployment skills for the current software product are lacking and so, even though the value of the software is understood, training is necessary to avoid serious delays in the project
- ▶ A product does not perform or scale (or it is believed that this is the case)
- ▶ There is no bandwidth for people to deploy the software or manage the deployment of software
- ▶ Rapid deployment and quick wins are required that demand using prior experience and patterns of use from the vendor

This chapter is not intended to be an exhaustive list of the offerings available from IBM services organizations, but it does highlight a few specific examples of our services offerings that can address these needs, and that have been designed to address the objective of getting value from your software. See Appendix C., “Services offerings” on page 203 for a list of more relevant services offerings. Speak with your IBM representative about any of these services offerings.

5.2 Why you need services

In 1.4.1, “Approaches to value realization” on page 8, we outline the approaches to value realization from your purchased software. In that chapter, we discussed

that the value of software can be measured by price alone, by its level of use, or, at best, by measuring the business impact of the project for which the software is used. In most cases, software is of little value unless it is deployed and used.

The deployment of purchased software might be delayed, or not take place at all, if the skills and resource levels required are not applied appropriately. Chapter 1, “Software deployment perspectives and challenges” on page 1 also discusses a number of factors that can inhibit the value of purchased software. Some of these factors can be overcome by engaging the specialized services of IBM or an IBM Business Partner. The following list contains several of these factors:

- ▶ The project team is unsure if the software addresses the true business needs and whether it has the functionalities that are of value. The team might need more knowledge about the product and how its functionalities can benefit the project. Occasionally, this lack of knowledge results in highly functional software that is not deployed. One solution is to seek the services of IBM to demonstrate the software functionalities to your team.
- ▶ The necessary skills are not available within the organization to efficiently deploy the software. Although the value and functionality of the product might be clearly understood, a lack of technical skills in software deployment can delay the project significantly. One solution is to train employees in installing and configuring the software. Another solution is to bring in IBM to provide this service. It is also possible that obtaining skills for the chosen solution is difficult in your local region, so using the global resource pool from IBM or a remote provision of skills might be appropriate.
- ▶ Deployment and configuration of the software are successful. Still, the product is not used for its intended purpose. Perhaps there is a need for additional training to take full advantage of product functionalities. Users need to know how to use the software properly and efficiently. Especially for newly-available software products, this requires education and experience. One solution is to provide adequate time for training to encourage a comfort level with the product. An adjunct to this solution is to hire experts to begin building the first solution during this time of training and initial experience.
- ▶ When software products are tested for the first time for scalability and performance, results can be disappointing. Many times, this is due to insufficient tuning or incorrect calculations of expected workload and system use. If not addressed promptly and properly, this can impact the value realized from the software and the success of projects as a whole. One solution is to engage, early on, the services that will assist in creating proper environment sizing and performing capacity planning. The goal is to ensure that service level agreements (SLAs) can be met. Advanced and proactive support services from IBM are used by our clients to address these issues, both during implementation and for the ongoing use of the solution.

- ▶ There are no resources available in the organization to perform software deployment-related activities. These activities can include anything from planning to software installation and governing and driving the projects that are associated with the software. There might not be an ongoing need for these skills in your organization. Here, it might be appropriate to use the expertise of IBM or one of our IBM Business Partners for the current project only.
- ▶ Many business projects that use new software require quick, positive results, or “quick wins,” to establish the value of the software to the organization. Rapid deployment and quick wins often require the use of prior experience and patterns of use from the vendor. The IBM “Quick Start” and accelerated software implementation services can help. We do this by, for example, initiating the first phase of the project quickly (thereby demonstrating product value to shareholders).

Our most successful clients frequently engage IBM services to augment their local expertise or to accelerate the implementation and time-to-value. IBM services professionals know their products and can begin planning, implementing, and integrating solutions quickly. They can also be helpful in transferring skills to your staff, reducing the time needed to reach self-sufficiency.

Contemporary business projects and IT solutions are often a complex architecture of products that integrate with your environment to deliver business value. This type of software implementation is not normally self-installing, self-calibrating, nor self-maintaining. The most efficient use of your resources is to allow the IBM client team to provide guidance in integrating new software or technologies into your environment.

5.3 Types of valuable IBM services for software deployment

IBM has extensive services capabilities, which we provide a comprehensive list of in Appendix C, “Services offerings” on page 203. Of these, we offer a subset of services that are directly associated with obtaining value from your purchased software. These include:

- ▶ Advanced support services: These services are targeted to minimize disruption from the implementation and operation of the software, two components that are critical in realizing software value. When you engage IBM for these services, we provide:
 - On-site, proactive support of your associated products and processes

- Critical performance reviews and tuning to meet your systems goals, diagnostic assessments, and health checks, all of which enable ongoing, smooth operations

One of the services in this category, the Accelerated Value Program (see 4.4.4, “The software Accelerated Value Program ” on page 98), is highly recommended as a best practice towards getting value from your software. Services in this category are available primarily from the IBM Software Services and Global Technology Services organizations (see 5.5, “Services organizations” on page 125).

- ▶ Education services: IBM offers a comprehensive portfolio of technical training and education services. These services are designed to ensure that you acquire, maintain, and optimize the skills needed to realize software value. Appendix C, “Services offerings” on page 203 is dedicated to this important services category, and explains our range of free and paid offerings to help you with building critical skills. Services in this category are available primarily from the IBM Software Services and Global Technology Services organizations (see 5.5, “Services organizations” on page 125).
- ▶ Accelerated deployment of products and solution sets: A great way to quickly realize the value of software is to implement a first phase deployment with one of our “Quick Start” or “Rapid Deployment Service” offerings and methodologies. These can be helpful when local access to software skill resources is limited, as certain offerings are largely remote. More information about these offerings can be found in 5.4, “Services offerings specific to software deployment” on page 118. Services in this category are available primarily from the IBM Software Services and Global Technology Services organizations (see 5.5, “Services organizations” on page 125).
- ▶ Solution design services: It is well understood that gaining value from software is no accident. Key solution design services, such as project scoping, architecture and design planning, and reviews, Deployment Readiness Assessments, application reviews, and migration assessments, are key factors in making the IT solution fit the business need. The services in this category are customized to your needs, and are available primarily from our Global Business Services®, IBM Software Services, and Global Technology Services organizations (see 5.5, “Services organizations” on page 125).
- ▶ Services of an IBM enterprise deployment manager or deployment architect: There is a growing use of longer term enterprise license agreements and longer term integrator led projects to implement software and business transformation together as one project. For this, IBM has developed offerings aimed at maintaining software vendor dedication to the success of the deployment. A discussion of the “IBM enterprise deployment manager” on page 25 describes this role. Many of our successful enterprise license agreement software customers keep these resources, for example, an IBM

enterprise deployment manager or deployment architect, from IBM Software Services. This is to maintain a sustained focus on getting value from the enterprise license agreement. These services are primarily available from the IBM Software Services team (see 5.5, “Services organizations” on page 125). Occasionally, these services are available as part of the Accelerated Value Program (see 4.4.4, “The software Accelerated Value Program ” on page 98).

- ▶ **Implementation services:** This category covers the technical skills needed to deliver traditional services, such as software installation, configuration, and customization. Vendor resources can often add value to your team with their direct, current product knowledge and their access to the IBM network of experience. Services in this category are available primarily from the IBM Software Services and Global Technology Services groups, or part of Global Business Services’ systems integration engagements (see 5.5, “Services organizations” on page 125).
- ▶ **Consultancy and integration services:** In the context of a large business transformation project, a world class system integrator and business consulting services firm might be required to take overall control. The scope of this book is not to address program management of this scale, but we acknowledge here the importance of quality business consulting and integration skills in the implementation of your software. These services are provided by Global Business Services (see 5.5, “Services organizations” on page 125). More information about the capabilities of Global Business Services is located in Appendix C, “Services offerings” on page 203.

5.4 Services offerings specific to software deployment

With the IBM extensive range of services offerings, we want you to be aware of those that are most significant for deployment projects. We highlight the Accelerated Value Program, deployment resources, and the Rapid Deployment Service here, and accentuate these with a case study.

5.4.1 Accelerated Value Program and deployment management case study

A great example of the value of IBM Services offerings is demonstrated by a real-life, single case study, involving an organization we will call JDM. JDM took advantage of the Accelerated Value Program offering for software deployment needs. (For an overview of this program, see 4.4.4, “The software Accelerated Value Program ” on page 98.)

Business context

JDM is a major user of IBM mainframe and IBM middleware software. The increase in mainframe use is due to a number of factors, including the global financial crisis, which increased the demand on JDM services.

JDM recently completed the first phase of an IT Next Generation program. This program represented a more than five-year commitment to improving service delivery by providing technology to support self-service options. JDM elected to acquire and deploy WebSphere and Rational software to deliver the major functionality of the IT Next Generation program.

The IT Next Generation program improves JDM's technical system foundations, including:

- ▶ Infrastructure that will allow the introduction of a wide range of self-service options, reducing the need for over-the-counter services
- ▶ Improving internal and external security and access to systems
- ▶ Removing stresses to increase system availability
- ▶ Enhancing hardware and software to support data exchange, third party transactions, and stability of systems
- ▶ Upgrading connectivity, platforms, and systems to support faster and increased capability

To-date, the IT Next Generation program has moved into phase 2, supporting the next steps in their business transformation journey.

IBM offerings used

JDM engaged IBM services for implementation assistance, taking advantage of an extensive list of IBM products over the five-year span of the project. These products included:

- ▶ Establishment of a Rational application development environment
- ▶ Establishment of a WebSphere and WebSphere Portal infrastructure
- ▶ Development of J2EE applications for access through the web
- ▶ Deployment of an internal staff portal
- ▶ Deployment of an external customer portal, including authentication using IBM Tivoli Federated Identity Manager
- ▶ Implementation of DataPower® boxes
- ▶ Deployment of other portals

- ▶ Deployment of IBM WebSphere Process Server and IBM FileNet® Business Process Manager (BPM) for scanned documents, for the development of a claim processing function
- ▶ Implementation of Cognos®
- ▶ Expansion of IBM WebSphere Process Server and IBM FileNet BPM to support more processing claim types
- ▶ Implement monitoring by IBM Tivoli to monitor IBM WebSphere, IBM WebSphere Portal and IBM WebSphere Process Server environments

To deliver this capability, JDM engaged in an IBM enterprise agreement, and a number of service offerings were specified:

- ▶ IBM Software Group services: to assist in the deployment of new and enhanced technologies
- ▶ IBM Global Business Services: for application infrastructure and development activities
- ▶ IBM Global Technology Services: for mainframe-related infrastructure activities
- ▶ An extensive Accelerated Value Program for proactive software management that can include up to six IBM resources, supplemented with a number of field service engineer days
- ▶ JDM also engaged a full-time enterprise deployment architect and an IBM enterprise deployment manager

Value gained

JDM regularly presents at IBM customer conferences and events, describing how the offerings from the IBM software and services groups helped them to achieve their goals and objectives. JDM often recognized the value that the Accelerated Value Program and an IBM enterprise deployment manager brought to their organization. These resources helped JDM to demonstrate a high level of deployment of purchased software and a high rate of return on business projects.

Since approximately 2002 when JDM purchased the Accelerated Value Program, this program has been a key service. As JDM's belief in the value of the program grew, their service from IBM grew from one person to six persons.

The IBM enterprise deployment manager and IBM enterprise deployment architect roles were originally intended as short-term agreements. JDM values the direct focus these roles provided in realizing value from the enterprise license agreement, and these roles continued as part of the enterprise license agreement since 2002. These roles also ensured a minimal need for license compliance reviews or audits because IBM enterprise deployment managers

have full visibility and an agreed tracking process with JDM for all license use, with a focus on ensuring value to the client for every piece of software they maintain. JDM states the value proposition of the Accelerated Value Program as that it:

- ▶ Helps manage existing deployments with the proactive management of support calls
- ▶ Offers advice about strategic direction in the Accelerated Value Program team product specialty areas
- ▶ Provides a flexible model to obtain key technical resources, when needed, in periods of high demand

5.4.2 Rapid Deployment Services: A new approach to getting your deployment kick-started

Rapid Deployment Services is a new services offering that is designed to kick start software deployment. The Rapid Deployment Services difference is that it utilizes:

- ▶ A library of previously built solutions for specific software combinations
- ▶ A Central Delivery Team that develops the installation packages off site for the client's environment
- ▶ A cloud-based test environment to ensure quality before on-site, production installation

In a traditional, labor-based service delivery model, middleware deployment is dependent on each individual SME to install, configure, and test their individual component, brought together for integration and testing as part of the project whole. This often follows a pattern of inserting disks, installing software, configuring software, addressing issues and failures, uninstalling and reinstalling software (potentially multiple times), re-configuring, integrating, and testing. This process can be repeated by each subject matter or product specialist expert. Manual deployment and configuration of middleware infrastructure is highly inefficient, time consuming, expensive, and prone to errors.

In contrast, Rapid Deployment Services follows an automated middleware deployment capability consisting of:

- ▶ Library of middleware assets:
 - Pre-built and preconfigured to IBM best practices
 - Modular and repeatable in nature
- ▶ Automation tools:
 - Accelerate asset construction and deployment

- Global Technology Services field developed and proven
- Internal methodology known as the Simple Product iNstaller
- Delivery methodology:
 - Established global delivery support by the Central Delivery Team:
 - Phase 1 (Local): Draft the build sheet, capture parameters
 - Phase 2 (Central Delivery Team): Build the asset, package construction and testing
 - Phase 3 (Local): Deploy the package, run automated scripts

Figure 5-1 illustrates these implementation services graphically.

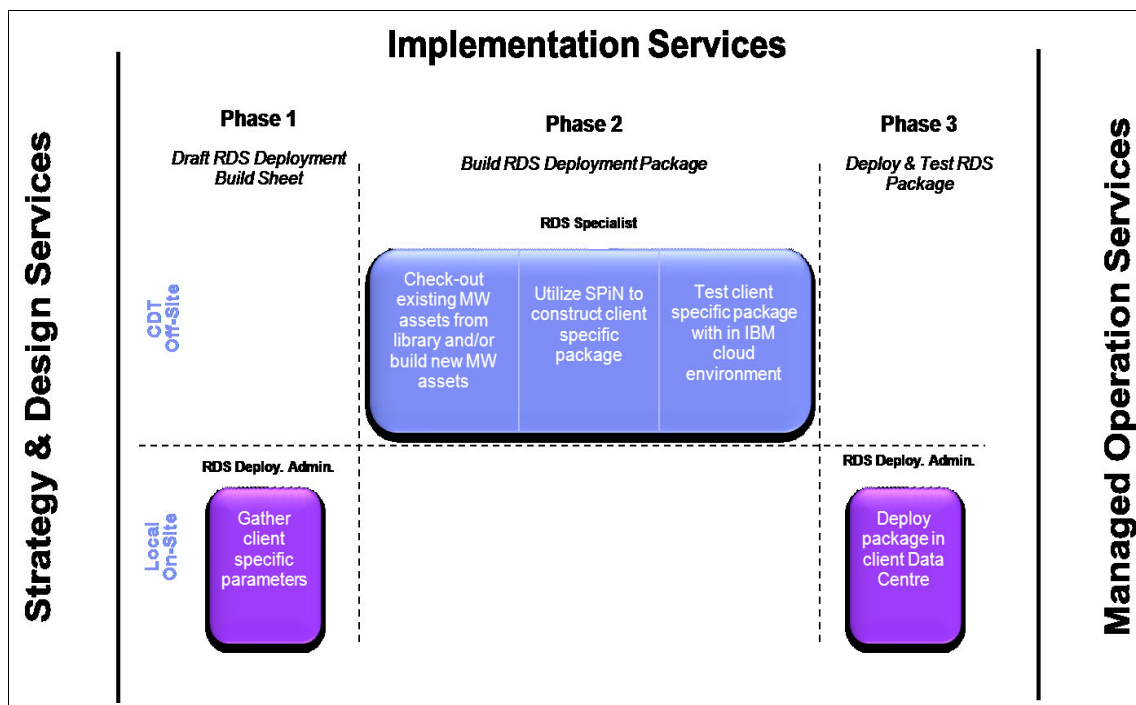


Figure 5-1 Implementation services by phase

This service is designed to integrate with your internal team and is in support of the IBM Software Services group and Business Partners in providing this service to you. The model allows on-site delivery self-sufficiency in Phase 1 with three services and engagement of Central Delivery Team shared services in Phase 2.

Benefits of Rapid Deployment Services

The potential benefits of using Rapid Deployment Services in your implementation are:

- ▶ **Speed:** The Rapid Deployment Services process has the potential to use pre-existing assets to complete the implementation quickly
- ▶ **Quality of implementation:** Using a Central Delivery Team with product experience can help in situations where local skills are not available for the software or solution, and therefore increase the quality of the implementation

Rapid Delivery Service is an offering from IBM Global Technology Services.

For more information about Rapid Deployment Services, speak with your IBM representative or visit:

<http://www-935.ibm.com/services/us/index.wss/offering/its/u116523t54994s53>

5.4.3 Proof of Concept

A Proof of Concept (PoC) is a short-term engagement between you and IBM that is normally a paid service. A PoC is often delivered by a mix of IBM pre-sale specialists and services specialists to deliver a more comprehensive capability than simple pre-sales Proof of Technology. POC is primarily used as a *risk mitigation tool* to test uncertain, client-specific functionality before moving towards full project scope. The PoC is an extension of the POT, which covers basic product or solution functionality.

A Proof of Concept is most valuable to you as an environment that demonstrates how the key solution components will work in your specific and unique situations, and often addresses integration points with other applications or specific workload or user interface proof points.

PoCs are not a full pilot solution designed for production use and, therefore, are not installed in your production environments, but must reflect the actual complexity or integration points from your production environment that are being tested.

The PoC is conducted by a team of IBM SMEs, which provides an excellent opportunity for discussing complex and technical matters with SMEs. It is also a time for getting hands-on mentoring about the use of the product. A PoC generally lasts from one to three weeks, depending on the products involved and the scenarios executed. Although it is unlikely that a single PoC will address all aspects of the IBM software purchased or considered for purchase, the PoC is extremely beneficial.

When a PoC takes place

A PoC is generally undertaken in situations where a Proof of Technology (PoT) does not demonstrate specific integration or context needs in your environment. Most of the time, a PoT demonstrates that the technology is capable of the required function, so a PoC is only recommended and proposed by us if further or longer term proof points are required. It is expected that, before any PoC is undertaken, you make yourself aware of the product capabilities as much as possible using brochures, presentations, and product demos from our teams, and after you have participated in introductory training in the technology.

General PoC best practices

A PoC is a significant investment from you, so IBM treats a PoC as a functioning project, requiring that the management of the project be taken seriously. There are several best practices we recommend and follow in our PoC engagements. A brief outline of these best practices follows:

- ▶ Clear success criteria and requirements: Ensure that the criteria for PoC success are clearly stated in a PoC Document of Understanding, agreed upon between IBM and you.
- ▶ Avoid scope creep.
- ▶ Develop a test plan: Develop a test plan prior to the PoC development to compare results against the success criteria. A member of your team must have ownership of the test plan, with that person responsible for updating it as the PoC progresses. The test plan serves as a daily status, clearly indicating progress to the IBM and client teams.
- ▶ Roles and responsibilities: Clearly define PoC preparation and execution roles and responsibilities. Make sure that roles and responsibilities are clearly defined in the PoC Document of Understanding.
- ▶ Logistics: Ensure that all necessary logistics are covered in the PoC Document of Understanding, which might include:
 - Providing root access to computer equipment
 - Providing user IDs and passwords
 - Providing hardware in support of an agreed upon PoC topology
 - Providing PoC support resources
 - Providing product installation media
- ▶ Execution topology: Clearly define the PoC execution topology, and make sure that it is appropriate for a PoC (for example, it cannot be executed in a Quality Assurance environment).
- ▶ If the PoC success criteria require that a load be driven against the environment, ensure that appropriate consideration to components and network have been given to allow for testing of that aspect, implementing dedicated environments where appropriate.

- ▶ **Product maintenance:** Apply the latest product maintenance. Unless there is a known reason not to do so, apply the latest maintenance releases on each product associated with the PoC.
- ▶ **Communications:** The plan must ensure that an IBM expert from the PoC team is always available for you when you are using the PoC environment.
- ▶ **Timing of POC:** Avoid long-running, overlapping, or split PoCs. If a PoC is planned to take more than two weeks, consider rescoping, as we have experienced that PoCs that last longer than two weeks are too broadly scoped for consistent success.
- ▶ **Maintain resource stability:** During the PoC, do not pause a PoC project in the middle. The context switching costs of a split PoC among different practitioners and time frames can greatly reduce the probability of achieving the outcome you desire.
- ▶ **Performance:** Performance is not an afterthought for a PoC. If performance is a significant part of the evaluation criteria, it might be better that it is scoped and planned as its own PoC.

5.5 Services organizations

IBM offers a diverse range of IT solutions and products and built specialized units within the organization to support that diversity. As a result, there are services capability groups that address each of these disciplines. The services organizations you will most likely be involved with during your relationship with IBM are:

- ▶ IBM Global Business Services

<http://www-935.ibm.com/services/us/gbs/consulting/>

Global Business Services is the business consulting and Systems Integration group of IBM that delivers integrated business solutions that customers need to compete in a globally integrated enterprise. This group is the world's largest group of IT consultancy services. Global Business Services has expertise across many industries, helping companies to capitalize on new business models, reengineer core processes, implement packaged solutions, and create management systems to help you manage top projects. IBM Global Business Services can help you to use the latest capabilities to optimize business performance and deliver higher value. All of the IBM Global Business Services business lines provide access to a full range of technical and business solutions.

Refer to Appendix , “Global Business Services” on page 209 for specific information about Global Business Services offerings.

► IBM Software Services

http://www-01.ibm.com/software/sw-services/?cm_re=masthead_-_itservices_-_software

IBM Software Services is a team of highly skilled consultants with broad architectural knowledge, deep technical skills, and best practice expertise. Engaging this team grants you access to some of the deepest product, consulting, and training skills in the world. Software Services has close relationships with our development labs, ensuring that you have access to the latest technologies over the life of your project. The experts in this group focus exclusively on providing technical services, training for IBM solutions, and integrating other supported platforms to help you use your solution as quickly and as fully as possible. With an IBM technical expert by your side, you can minimize your risk, maximize your investment, and meet your business goals. Software Services is also known as IBM Lab Services in select countries.

Refer to Appendix , “IBM Software Services” on page 204 for specific information about Global Business Services offerings.

► IBM Global Technology Services

<http://www-935.ibm.com/services/us/index.wss>

Global Technology Services helps clients to reduce costs, improve productivity, and assert their competitive advantage with a comprehensive portfolio of assessment, outsourcing, infrastructure, and systems integration services. They also offer innovative rapid deployment services for IBM software.

Refer to Appendix , “Global Technology Services” on page 210 for specific information about Global Business Services offerings.

► IBM Systems and Technology Group Lab Services

<http://www-03.ibm.com/systems/services/labservices/index.html>

The IBM hardware division is known as the Systems and Technology Group. This group has its own services organization, focused on deployment and value from the hardware solutions and their integration to software. The Systems and Technology Group Lab Services helps to infuse intelligence in the way the world’s information technology works. They focus on driving down costs by designing flexible infrastructures, while, simultaneously, managing risk through the use of deep technical skills and training expertise.

Refer to Appendix , “Systems and Technology Group Lab Services” on page 211 for specific information about Global Business Services offerings.

5.6 Conclusions and recommendations

The value of engaging IBM as a services partner in key areas can bring real results and enhancements to your project value. This chapter demonstrates specific areas in which IBM services can and have accelerated the deployment of software and value to organizations. In summary, engaging IBM services can have the following benefits to you:

- ▶ Fastest path to value
- ▶ Delivery methodology and templates that help to accelerate project schedules and reduce risk
- ▶ Services offerings that foster adoption
- ▶ Ongoing self-sufficiency of your organization by skills development
- ▶ Education and training by role and function
- ▶ Flexible engagement models to optimize your access to expertise, while retaining a low total cost of ownership
- ▶ Direct access and collaboration with IBM product development labs

For any major implementation of IBM software, we do recommend the following set of offerings as the best set to invest in for project success. Consider whether each one is appropriate for your instance, and discuss them with your IBM representative:

- ▶ Accelerated Value Program: To provide advanced product support and proactive, on-site engagement from the IBM support management team (see 4.4.4, “The software Accelerated Value Program ” on page 98).
- ▶ IBM deployment managers and deployment architects: These resources help you with the governance of software deployment projects, and provide ongoing advice and information about realizing value from purchased software. This is particularly recommended for enterprise license agreement software purchases, where a longer term, multi-project software entitlement was procured.
- ▶ Education assessment and planning: We recommend that you engage IBM to perform an assessment of your education and training needs. as these can determine which investments are needed for enablement of your organization (see 6.3, “Portfolio of training offerings” on page 132).
- ▶ Software implementation quick starts or accelerated deployment services: These methodologies can get first phase and quick win implementations underway.
- ▶ Key skills resources: Architects, key technical implementation resources, project managers, industry-specific solution skills, and business consultants

are critical skills and talents for projects. They can be sourced from your integration partner or IBM Services teams.

As a final note on the topic of services, IBM service offerings and the structure of the IBM services organizations can and do change. Be sure to visit the IBM website for the latest information.



Building self-sufficiency using training

6.1 What this chapter is about

A significant part of your software deployment and implementation strategy is to arm your team with the necessary skill sets for your environment. Depending on your approach for each project, you can elect to use the services of IBM, such as technical or integration services, or perhaps those of one of our IBM Business Partners. Ultimately, the deployed products must be supported by your organization.

One of the most effective accelerators for gaining value from software deployment in the short term and long term is investing in training your team. Ask yourself, as does Figure 6-1, if your skills are ready for what is ahead.



Figure 6-1 Investing in training is one of the most effective software deployment accelerators

To be self-sufficient, a team must be developed so that it has the right blend of skills and experiences to act independently of the IBM support and services teams. Training can be obtained by knowledge transfer from any deployment services you have engaged, or by participating in formal training from IBM.

6.2 Required skill sets

To ensure that you have a comprehensive training strategy in place, consider the skill sets that we discuss in this section. For any that are out-of-date or lacking, IBM has training and educational offerings to assist, as described in 6.3, "Portfolio of training offerings" on page 132.

6.2.1 Implementation skills

Implementation skills include knowledge of product installation and configuration. Your implementation plans might indicate that initial installation will be contracted to an external provider. However, a certain amount of internal team knowledge of software installation and configuration is critical to the success of the project. Training must include specific platform and version considerations and integration with other IBM or third party software.

6.2.2 Technical administration and operations skills

Administration and operations training sessions for your support team are other components of project success. Certain software products and systems that interact with deployed products require ongoing administration, tuning, and maintenance to maintain high-level performance and availability based on Service Level Agreements (SLAs).

6.2.3 User training

The value of software implementation is normally associated with functional and business requirements that describe the tasks to be carried out by users and how to do so. For a newly-implemented system, users require training to develop a comfort level with the technology, the system, and the processes. A few enablement sessions, on-site training, or other transition tools address these needs.

IBM offers a comprehensive portfolio of technical training services that are designed for individuals, companies, and public organizations to acquire, maintain, and optimize their IT skills. The IBM training portfolio includes both free and paid offerings. There are both standard and customized training programs available. The entire portfolio of training offerings is summarized as follows and depicted in Figure 6-2 on page 132:

- ▶ Free training programs and tools
- ▶ Standard classroom training
- ▶ Distance learning
- ▶ IBM software conferences and events
- ▶ Customized training

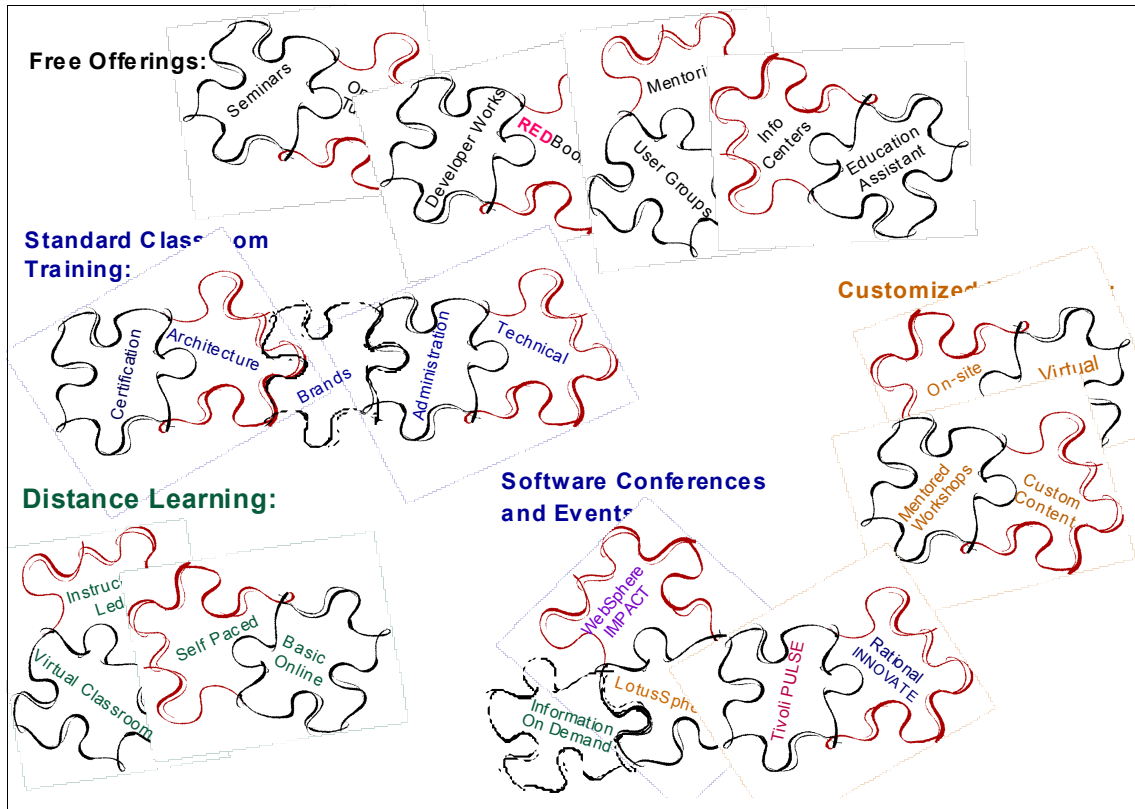


Figure 6-2 Depiction of the IBM training portfolio

To learn more about these and other training opportunities available to you, visit:

<http://www-01.ibm.com/software/sw-training/>

6.3 Portfolio of training offerings

In this section, we provide an overview of standard and customized training that is available from IBM. Links are provided, where applicable.

6.3.1 Free training programs and tools

IBM offers a number of training tools that are free of charge. We discuss these tools in this section.

IBM seminars and product roadshows

Scheduled throughout the year, roadshows offer you the opportunity to speak with IBM product experts. Recent roadshows include *Impact Comes to You* and *LotusSphere Comes to You*. For more information, speak with your local IBM representative or, for a list of current seminars and roadshows, visit:

<https://www-304.ibm.com/jct03001c/services/learning/ites.wss/zz/en?pageType=page&c=a0011023>

Brand or product-specific web programs

Worldwide web training tutorials are available for multiple product offerings at:

<http://www-01.ibm.com/software/sw-training/>

DeveloperWorks website

This forum for development and IT professionals is of particular value, providing podcasts on software products. Visit:

<http://www.ibm.com/developerworks/>

IBM Redbooks

IBM Redbooks publications are developed and published by the IBM International Technical Support Organization (ITSO), which develops and delivers skills, technical knowledge, and materials to IBM technical professionals, Business Partners, clients, and the marketplace in general. Typically, Redbooks publications provide positioning and value guidance, installation, and implementation processes, typical solution scenarios, and step-by-step instructions. They often include sample code and other support materials that are available as downloads. Visit:

<http://www.redbooks.ibm.com/>

Mentoring from IBM sales and technical specialists

Your IBM client team is a valuable resource, interested in maintaining a relationship with you in support of your deployment efforts. The IBM sales and technical specialists are not substitutes for skilled deployment resources, but are a valuable learning resource in understanding product value and positioning, features, and solution fit.

User groups

Many of our clients around the world have built user groups or communities of practice for our solutions. Your local IBM software sales representative might be able to connect you to one of these client-run and client-delivered groups.

IBM Product Information Centers

The Product Information Centers are a modern approach to product information. Information Centers provide a powerful online interface for finding technical information about a product offering or product solution that:

- ▶ Helps you plan, install, configure, use, tune, monitor, troubleshoot, and maintain products
- ▶ Contains reference materials, such as product commands, parameters, and system values

For more details, visit:

<http://www.ibm.com/support/publications/us/library/index.shtml>

IBM Education Assistant

This is a collection of multimedia training modules that are designed to help you gain a better understanding of IBM software products and to use them more effectively to meet business requirements. Modules consist of multiple types of content, such as:

- ▶ Presentations that provide an overview of a product or technology or a more in-depth look at a particular product component or feature. These are available in Flash (many with audio) and PDF formats.
- ▶ Demonstrations that show you how to complete a specific task or configuration. They provide background information to help you understand the available options. Available in Flash format.
- ▶ Tutorials on an array of topics. Each tutorial includes all of the files necessary to complete a practice lab scenario in your environment.

For more details about the IBM Education Assistant, visit:

<http://publib.boulder.ibm.com/bpcsample/index.html>

6.3.2 Standard classroom training

The IBM hardware and IBM software divisions have a comprehensive portfolio of standard training offerings, ranging from product awareness to detailed technical training with certification. The IBM Education Group schedules many of these as regularly available courses in many countries. Many of our IBM-certified Business Partners also offer a range of training offerings for IBM software. For more information, visit IBM Training Guaranteed to Run Classes at:

<https://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=B768303T50066D41>

Training paths

To assist you in planning your training needs, IBM developed training paths. These paths are designed to help you navigate through the training and other resources that are available for IBM software and hardware products and solutions.

Information about these training paths is located at:

<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/au/en?pageType=page&c=a0011935>

As an example, if you are implementing data warehouse software, we suggest the training path shown in Figure 6-3 on page 136.

For our online course catalog, see:

<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=a0000037>

Data Warehouse Implementation

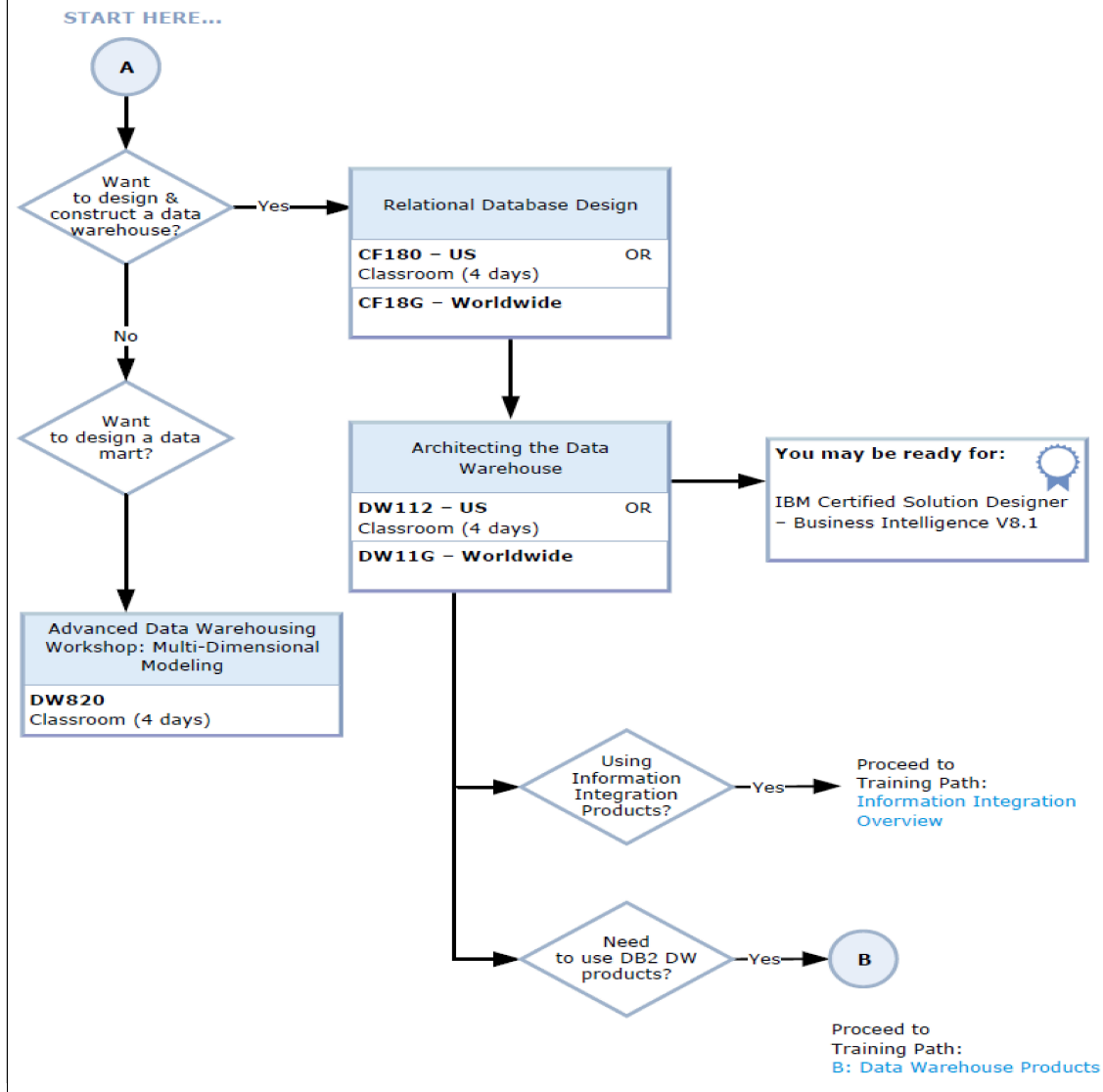


Figure 6-3 The IBM training path for those interested in implementing data warehouse software

6.3.3 Distance learning or e-Learning

Train without limits. Learn at your own pace or in a real-time, web-based classroom with peers around the world. Either on its own or as a complement to classroom instruction, IBM e-learning gives you maximum control over your training. Our available e-learning formats follow.

Instructor-led online training in a virtual classroom

IBM offers live classroom instruction, complete with instructor-student interactivity, delivered to your desktop. Instructor-led online (ILO) courses are taught live on a prescheduled day and time. Most courses are exactly the same as their classroom equivalent, including the course duration, content, and student materials. To connect to a class, a broadband Internet connection is the only requirement. This offer allows you to connect to the virtual classroom and interact directly with your instructor and peers. Several benefits of ILO training are:

- ▶ No travel costs or travel time
- ▶ Same content as the classroom version of the course
- ▶ Live instructor with whom you can interact and ask questions using Voice over IP (VoIP)
- ▶ Modest connectivity requirements let you participate from anywhere
- ▶ Thin-client implementation for easy system preparation
- ▶ Hands-on labs reinforce the concepts learned
- ▶ Classes can be scheduled after business hours to minimize time away from work

For more information about ILO training, visit the IBM online training site at:

<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=a0013864>

Self-paced virtual training

Self-Paced Virtual Classes (SPVCs) include web-based assignments, hands-on labs, and interactions with instructors through the IBM Learner Portal. SPVCs allow you to take part in classes on your own schedule, while having the same content, interactive exercises, and hands-on labs as our instructor-led classroom training sessions. Quizzes are incorporated to provide students with feedback on comprehension of the material. These classes let you take control of your training, because you participate when and where it is convenient for you. Get the high-quality content and instructor-led support of traditional classroom training, without the time and cost of travel.

Benefits of SPVCs include:

- ▶ Flexibility to train at your own pace
- ▶ Training from your desktop
- ▶ Courses and labs are available 24x7
- ▶ High-quality content
- ▶ No travel costs
- ▶ Lower training costs
- ▶ Modular and scalable lessons
- ▶ Module-based quizzes
- ▶ Interactive and prescriptive training
- ▶ Delivers the same content, exercises, and hands-on labs as in the classroom
- ▶ Instructors are included virtually, through recorded lectures and demonstrations
- ▶ Hands-on labs use actual IBM products

Basic online training

Individual students learn at their own pace, at their desktop, with totally self-contained courses that are available as single titles or as curriculum bundles. Self-paced, web-based training is available on demand and is offered in single titles, collections, or libraries, such that, when you purchase a course, you have access to many more for a full year. For more information, visit:

<http://www.ibm.com/training/us/elearning>

Several benefits of self-paced online training are:

- ▶ Courses are self-directed and self-paced, all from your desktop
- ▶ Available as single titles, collections, or libraries
- ▶ Purchase a course that is part of a collection or library, and gain access to many more for a full year
- ▶ Lower training costs
- ▶ No travel time

The IBM Education Pack

The IBM Education Pack is a prepaid discount program that gives your technical staff access to the IBM top-notch classroom training at a competitive price. It is ideal for companies that need to train multiple employees on limited budgets. The IBM Education Pack can be used for:

- ▶ Most public courses in more than two dozen curriculum areas (course description online denotes eligibility)
- ▶ Most IBM Technical Conferences
- ▶ On-site training, including tuition, mentoring, instructor travel and traveling expenses, equipment charges, and room rentals
- ▶ Most ILO and self-paced virtual classes

Although pricing varies by country, the IBM Education Pack's global availability lets you save money on training, wherever your people work. For information and conditions, visit the IBM Education Pack website at:

<https://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=B768303T50066D41>

6.3.4 Customized training

We also offer tailored training programs and training plans that are specific to your needs. Dedicated training can be delivered at your facility or ours. You have the option to purchase customized, dedicated training to better fit your training requirements. We also provide mentored workshops that are tailored for more specialized situations. In this style of training, the instructor presents the concepts and content in lecture and lab settings. The material is generally reinforced by examples, and worked on either individually or in teams. In most cases, the attendees are from a single project team, or of the same discipline in the company. Because of this, the material and examples can be tailored to reflect the team's domain. In cases where the material and examples remain generic (a cost trade-off), classroom discussions are used to explore the domain-specific application of the examples and concepts.

Customized offerings are normally developed using a five-step method, as shown in Figure 6-4 on page 140.

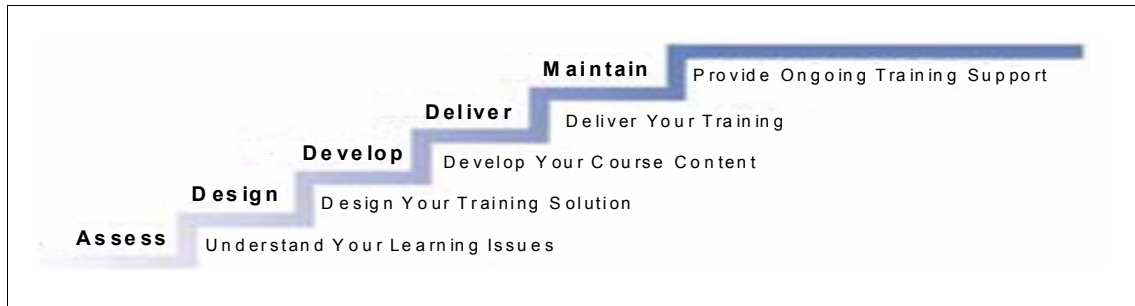


Figure 6-4 Five steps of IBM customized training

To develop your customized training, we first assess your needs. Our consultants work closely with you to understand your business objectives. Based on this assessment, we design a complete learning plan. With the design agreed to by you, we develop the specific content, through to completion.

The final step in the process is to consider your maintenance program. In this stage, we examine the ongoing training that might be required to support the system. We also examine the ongoing training that the team might need, for example, for updates in technology, or for projected changes and growth within your teams. This approach ensures that the customized training is going to deliver value to the deployment project, and that all of your training needs are considered in the plan.

Any of our scheduled IT and professional courses can be tailored to your environment. Browse our course catalog for available content. We can then discuss how a customized training program will meet your needs.

Customized training assessments, design, and development are a paid services offering from IBM. Contact your IBM software sales representative to obtain more information, or visit:

<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/au/en?pageType=page&c=a0012026>

6.3.5 IBM software conferences and events


Another form of training is our major Software Customer Conferences. IBM software offers customer conferences each year that focus on specific, major categories of software. Events, such as Lotusphere®, Information on Demand, Tivoli PULSE, IMPACT, and Rational Innovate, are great opportunities to learn about our technology, our strategies for the future, and to meet with IBM and other customers of those solutions.

Typically, these events are run annually at a global level with predetermined agendas. Events last up to one week and are attended by thousands of customers. Attending conferences and events gives you an opportunity to:

- ▶ See the latest strategy and announcements to the product portfolio
- ▶ Attend many sessions and tracks designed to build your product knowledge and product use cases
- ▶ Meet with IBM product executives and developers
- ▶ Attend sessions delivered by other clients, outlining their successful use of IBM products
- ▶ Meet and compare implementation strategies with other IBM software clients
- ▶ Contribute feedback to IBM development on the direction of our products and portfolio
- ▶ Take part in Business Leadership Forums
- ▶ Browse through Solution Showcase areas that highlight IBM and our Business Partner offerings
- ▶ Explore our offerings that are specific to your industry by participating in industry-focused sessions

Our events can also include exclusive opportunities for our larger customers to be part of the feedback to our product development.

Highlights of these major client conferences are often offered as local events in your own country, for example, Lotusphere Comes to You is an annual roadshow event that occurs in several countries. This event allows for a subset of the Lotusphere conference sessions to be attended within your own city or country. For more information, speak with your local IBM representative. For a comprehensive list of conferences and events, visit the IBM Events Calendar at:



The value of maintaining IBM Software Subscription and Support (S&S)

7.1 What this chapter is about

The IBM Software Support Center offers Subscription and Support (S&S) services to ensure that you receive the most from your current software. S&S provides you with ongoing access to the latest versions of your software and access to software support assistance both by telephone and electronically.

When you purchase IBM software, a period of S&S is normally included in the purchase price, typically for up to two years. At the end of that period, and each year thereafter, IBM offers to renew the S&S contract for a fee.

IBM software products undergo continuous development, adding improvement in functionality, new integration features, and changes that take advantage of new technologies. An S&S package from IBM software helps to ensure that you can take advantage of these continuing developments and helps to answer questions on the use of the product.

Without S&S coverage, IBM cannot support your critical business systems; therefore, the impact on your business is increased. IBM requires that you maintain S&S on every copy of each software license you intend to continue using, and we do not provide free support from our sales or pre-sales technical community in place of an S&S agreement.

In certain cases, such as for certain enterprise license agreements¹, a longer term of S&S is included in the annual contract fee for the term of the agreement. Speak with your IBM software sales representative to understand the arrangements that apply to you for S&S renewal.

See Chapter 7, “The value of maintaining IBM Software Subscription and Support (S&S)” on page 143 for more information about engaging effectively with customer support.

7.2 Software support offerings from IBM

The IBM Software Support Center provides software licenses to our customers for three different programs:

- ▶ **Passport Advantage:** A license program for IBM software that is not on the mainframe z-Series platform. This is also known as distributed software. Passport Advantage is a comprehensive IBM offering that covers software license acquisition, product upgrades, and technical support under a single, common set of agreements, processes, and tools. To ensure that you

¹ Refer to Appendix A, “The IBM Enterprise License Agreement” on page 187

continue to have access to the latest version of software and technical support, S&S is included in the initial Passport Advantage license acquisition for all distributed software products. It is renewable on an annual basis. A small business version is also available, called Passport Advantage Express.

- ▶ Mainframe One-Time Charge license: One-Time Charge license agreements are similar to the Passport Advantage program. These agreements have a separate S&S offering that, if acquired, provides for product support and access to future releases and versions. The S&S is then renewable on an annual basis.
- ▶ Mainframe Monthly License Charge: A Monthly License Charge agreement is a monthly rental agreement for the use of the license, and includes the support component in the monthly charge. The support program for these licenses is known as Program Services and support for most System z (S/390®, zSeries) products includes problem support for defects in IBM code and publications, available by telephone and electronic access. IBM provides the remote technical specialists necessary to resolve defects in the majority of our mainframe products at no additional cost to you. Support for critical IBM defect problems is available 24x7. These agreements can have fixed terms and specify the quantity cap of each license that is covered. S&S for Monthly License Charge license software is not charged separately, and if the Monthly License Charge payment is stopped, there is no ongoing license entitlement, and no support.

The IBM Software Support Center provides other support in addition to customizable options. These levels are:

- ▶ Foundational level offerings: Our foundational support provides a variety of support needs, which are:
 - S&S acquired through Passport Advantage
 - Software Maintenance for System p® and System i®
 - Support line
 - SoftwareXcel for US System z customers
- ▶ Premium support options, including our Accelerated Value Program: An enhanced customizable premium support offering, designed to add personalized proactive and on-site support capabilities, plus attention to software deployment planning and tracking and enhanced access to problem solving databases.
- ▶ Customized support: Additional customized services can be added, based on your specific support needs.

Regardless of the license program that has been used for your software, S&S is an important component to maintain your software and your business.

7.2.1 What S&S includes

There are several types of support available for the family of IBM software products. Figure 7-1 outlines the progression of offerings.

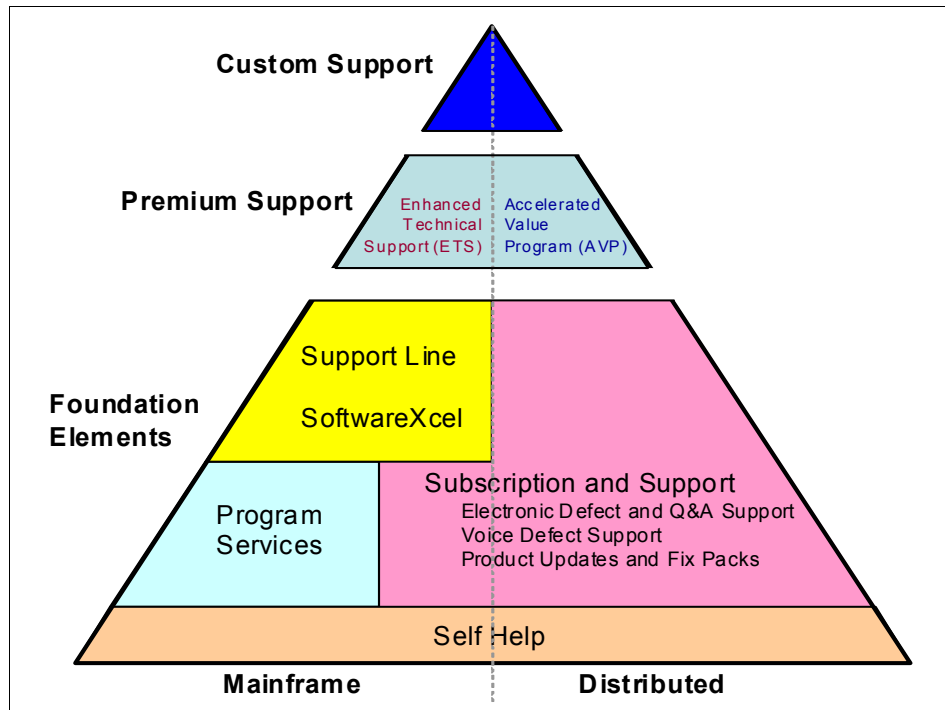


Figure 7-1 Types of support available with IBM Subscription and Support (S&S)

The core of the Foundation level of support includes self-help tools and S&S, which includes voice defect support and electronic defect and Q&A support.

When you renew your S&S for distributed or mainframe software, you receive access to:

- ▶ Unlimited voice and, where available, electronic access to the IBM Software Support Centers worldwide. So, you can contact our SSC as often as necessary, for example:
 - Voice and electronic access to report defects and ask how-to questions
 - Direct to Engineering
 - View and manage problem status on the Internet
 - No limits on the number of IT professionals who have access
 - Worldwide infrastructure support in native languages and time zones

- Self help plus access to our web site for enhanced online support
 - Remote problem determination and resolution during normal country business hours
 - Download interim fixes and fix packs
 - Search for Technotes, Authorized Program Analysis Reports and other product and technical information to assist with technical questions
 - Receive weekly email updates about flashes and fixes that can be enabled using the My Support function on our website
 - The ability to assign an IBM site technical contact who maintains a list of technical staff members who are authorized to submit and view problem records. Assist-On-Site, worldwide distributed service that allows for Internet-based, remote control to assist clients in real-time
 - Access to product updates, including productivity and performance updates
 - Security updates
 - Ongoing client communications about incident resolution activities
 - Assistance with understanding documentation
 - Assistance with gathering analyzing traces and dumps
 - Installation, usage and basic product configuration assistance, for example, product compatibility and interoperability
 - Provide available configuration samples
 - Technical database searches
 - Customized and proactive product notification of important information through the My Support web page
- ▶ Emergency support, available 24x7 for Severity 1 issues, those critical to your business. Severity 2 through Severity 4 incidents are covered during agreed-upon business hours in your country. See 8.3.1, “Understanding severity levels ” on page 156.
 - ▶ Our upgrade guarantee for no-cost access to new releases and enhancements as they roll out. This means you always have the most up-to-date versions of the software you rely on each day.
 - ▶ Trade-up options and pricing, making it feasible for you to keep up with changing business needs.

7.2.2 Other support offerings

In this section, we discuss other support offerings.

Self-help tools

The IBM Software Support Center also provides self-help tools and resources to help you use IBM software products successfully. Self-help tools are offered as part of the software support contract. General self-help capabilities include features, such as:

- ▶ Basic search capability for:
 - IBM software defects, that is, closed Authorized Program Analysis Reports
 - Software fixes
 - Technotes for resolved issues
- ▶ Information about how to purchase software support
- ▶ Marketing information, such as product overviews, newsletters, Redbooks, white papers, and product announcement letters
- ▶ Technical information, such as Redbooks and white papers
- ▶ Links to education and training information
- ▶ The IBM Support Assistant Tool is a complimentary software offering which provides you with a workbench to help with problem determination. With a focus on finding key information quickly, automating repetitive steps, and arming you with a variety of serviceability tools, you will be prepared for self-analysis and diagnosis of problems and a faster time to resolution. To download this tool, visit:

<http://www.ibm.com/software/support/isa>

Support Line

For mainframes, the Support Line offering provides support for those operating systems and associated products that are not available with the Passport Advantage S&S or software maintenance offerings. Having S&S, software maintenance, and the Support Line ensures total support coverage for your enterprise needs, including IBM and selected non-IBM products.

For more information, visit our Support Line at:

<http://www-935.ibm.com/services/us/index.wss/offering/its/a1000030>

The IBM SoftwareXcel for System z customers

SoftwareXcel (enterprise edition) is available in select countries. It provides:

- ▶ Resolve for System z, which is the ability to report problems, routine installation, and “how to” questions electronically
- ▶ Alert for System z, which is the ability to be notified of high impact fixes
- ▶ Electronic access to Frequently Asked Questions (FAQs)

- ▶ The ability to electronically submit routine installation and “how to” questions and receive responses during business hours, with voice and 24x7 options available
- ▶ An optional uplift is available to allow a 24x7 response to “how to” questions
- ▶ Download fixes by linking to the IBM support database
- ▶ Premium response (usually less than one hour) during business hours for suspected defect problems

Remote Screen Viewing capability:

<http://www-01.ibm.com/software/support/offerings.html>

For more information, visit SoftwareXcel for System z customers at:

<http://www-935.ibm.com/services/us/index.wss/offering/its/a1000185>

Premium Support

Premium Support offerings are services that provide both additional and specialized support on operating systems and middleware products. Premium Support offerings focus on the vertical depth of support. They feature a personalized relationship with our technical experts, on-site assistance, knowledge transfers, and horizontal breadth for multi-product and multivendor IT environments to maximize IT infrastructure availability.

With Premium Support, you can customize an offering to include:

- ▶ Proactive problem prevention and knowledge transfer
- ▶ Situation management and reporting
- ▶ Escalations
- ▶ Account management
- ▶ Assigned technical analyst
- ▶ Optional or planned on-site days
- ▶ Emergency on-site days
- ▶ Remote technical advice hours
- ▶ Event-specific after-hours support for all severities

Premium Support offerings include:

- ▶ IBM Account Advocate (for U.S. customers)
- ▶ IBM Enhanced Technical Support (for customers in the U.S., Canada, and Europe)
- ▶ IBM Software Accelerated Value Program for middleware products (see “The software Accelerated Value Program ” on page 98 for more information)
- ▶ IBM Advanced Support for System i and System p software (for customers in the U.S. and Europe)

For further details about our software support offerings, see the Software Support Handbook at:

<http://www14.software.ibm.com/webapp/set2/sas/f/handbook/offerings.html>

7.3 The value of S&S

7.2, “Software support offerings from IBM” on page 144 describes the extensive offerings included with your S&S renewal. This is a key factor in obtaining value from your IBM software. The value of S&S can be realized in several ways:

- ▶ Completeness of the design: S&S entitles you to upgrade to the newest release of each covered IBM product, ensuring that you have access to the latest support for innovations and standards in areas, such as data access and management, business process composition, and collaboration.
- ▶ Completeness of technical implementation: Having the components of a solution installed, configured, and running properly is key to realizing its value. Clients with up-to-date S&S have access to usage- and code-related voice support. So, regardless of your environment, platform, or customizations made, we assist you in keeping all systems running in top form.
- ▶ Reliability of the solution (availability, robustness, security, and performance): IBM products are refined by design and based on user experience. Our ongoing investment in our products ensures that they meet and exceed our clients’ performance and reliability expectations. If a problem is encountered, clients with current S&S receive:
 - 24/7 remote problem analysis and coverage
 - Unlimited voice access to IBM Software Support Centers
 - A two-hour response time
 - Online tracking of your resolution process
- ▶ Flexibility of the solution to meet changing business needs: As IBM adds features to their products and makes them available, you are given access to them. You are notified when a software upgrade is upcoming or available. Clients can use the IBM Passport Advantage Online to download upgrades from the web at no additional charge, as long as their software maintenance agreement is kept current. With the IBM simple renewal processes and flexible financing options, you save time and money.
- ▶ Maintaining your S&S agreement: Remaining current on S&S is less expensive than reinstating a lapsed agreement. The annual renewal S&S charge is much less (approximately one third in many cases) than the cost of re-establishing a lapsed agreement. Do not risk having to pay a high cost for support or an upgrade you need to keep your business running at optimal

efficiency. See 7.4, “Keeping your software license agreements active” on page 151.

- ▶ Capacity scaling to handle variations in workload: As the business and processes of your enterprise expand, computing capacity and the distribution of work among servers can change. This often results in the purchase of additional licenses for server software.

It is a considerable risk to your organization not to renew S&S. Without it, you can miss out on important updates and needed help for maintaining the availability of your solution. Not renewing your S&S can significantly impact the overall value of your software investment.

7.4 Keeping your software license agreements active

An annual S&S review is a good time to confirm usage levels for installed software. We suggest that you:

- ▶ Know and validate how many copies of each IBM software product are installed: Situations such as the reorganization of employees, workload, and physical location often force changes in the use of software. Though actively managed by most clients, the annual S&S renewal event is an ideal time for our client's IT management and procurement to confirm the number of instances of IBM licensed software in use.
- ▶ Know and validate the number of licenses being billed and paid for: Confirming that all purchased software is installed can eliminate unnecessary expense. Purchasing needed licenses ensures that you meet your contractual agreements. By working with the IBM renewal representative, both parties are ensured of accurate license counts and that billing is correctly stated.
- ▶ Understand and communicate your entitled rights for maintenance, upgrades, and technical support: After licensing is up-to-date, your IT management team can communicate, through their internal structure, the rights and contacts for support. They can communicate which licensed software is eligible for maintenance and new release upgrades, which ensures that upgrades and support are available for use.

When you renew S&S for a product at a site, this is the recommended time to renew S&S for all copies and licenses for that program at that site, no matter how you acquired those copies. You must renew S&S for all copies and licenses of that program for which you want technical support.

Covering your license with S&S: To be authorized to upgrade your licenses or to contact Technical Support with questions or issues, the license must be covered by current S&S.

Where applicable, S&S for both the host and the workstation licenses can be renewed.

Software Subscription and Support Reinstatement: You are entitled to S&S only on the licenses covered. If you need technical support coverage or want to install a new version or release on one of the licenses with lapsed S&S coverage, you must acquire Software Subscription and Support Reinstatement. This is the only way to reinstate your licenses in Software S&S.

7.5 Conclusion

Getting value from your software involves having a support program in place that is the most appropriate for your organization. IBM software S&S is the minimum support level that ensures two primary objectives:

- ▶ That IBM will be there to assist you when needed
- ▶ That you have access to new releases for purchased products

Without S&S, you can miss out on important updates and needed help for maintaining the availability of your solution.



How to effectively engage with IBM customer support

8.1 What this chapter is about

We at IBM pride ourselves on delivering world class software support from our highly skilled, customer-focused staff. However, we realize that we cannot take the place of your own company support staff. Many successful companies found that the best way to interact with the IBM Software Support Center is by means of their own specialized group of trained, highly skilled, senior staff members who understand the organization's environment and act in conjunction with the organization's internal support processes. That group can filter, sort, and prioritize the organization's support needs and direct each to the best resources (either IBM or non-IBM) for resolution. These persons become the authorized callers to IBM when support is necessary. They and the IBM support staff work toward a fast resolution of IBM-related issues and assume a similar role with other vendors.

Accessing IBM support: To access IBM support, you must have a current support agreement. This chapter provides an overview of the IBM support process. See the IBM support web site for further information:

<http://www.ibm.com/software/support/>

We encourage you to adopt a similar structure, if you have not done so already. This structure will also help us to promote the success of your IBM software deployment. This type of structured support team has been shown to be the most effective.

IBM offers three channels of access to our support services:

- ▶ Telephone access
- ▶ Electronic Support Service
- ▶ On-site support options, such as the Accelerated Value Program

When your IBM Subscription and Support (S&S) software agreement is kept current, you are offered full access to telephone and Electronic Support Services. For more information about IBM S&S, see Chapter 7, “The value of maintaining IBM Software Subscription and Support (S&S)” on page 143.

The Accelerated Value Program is an optional support package available at an additional cost. More information about the program is located in 4.4.4, “The software Accelerated Value Program ” on page 98.

8.2 Response objectives and hours of operation

In this section, we discuss our objectives for responding to your support requests.

8.2.1 Software Support Center hours

IBM Software Support Center hours cover the prevailing business hours in the country where your product is licensed or your contract registered. There can be exceptions for countries where Monday through Friday is not the typical work week, or where IBM business hours are not the same as yours because you and IBM reside in different time zones. In those cases, contact your IBM Business Partner, reseller, or IBM software sales representative to determine your hours of coverage.

When you contact the IBM Software Support Center to report an incident or to check the status of an incident, your request is routed to a software support specialist. For all distributed platform (non System z series) software incidents, our goal is to return your call within two business hours during business hours. For incidents that are Severity 1 (critical), our goal is to return your call within two hours (prime and non-prime work hours).

Note: IBM uses reasonable efforts to respond to service calls from your authorized callers within two hours during normal country business hours. Our initial response can result in a resolution of your request. If not, the initial response will form the basis for determining additional actions that are required.

8.2.2 Monthly License Charge and System z platform incidents

For incidents reported about Monthly License Charge software products (for example, System z), our response objectives continue to be based upon the severity of the request. Table 8-1 provides these objectives.

Table 8-1

Severity	Impact	Response goal
1	Critical business impact	Within two hours
2	Significant business impact	Within four business hours
3	Some business impact	By the end of the next business day

Severity	Impact	Response goal
4	Minimum business impact	By the end of the next business day

8.2.3 Support during non-business hours

During non-business hours, we make reasonable efforts to respond, by telephone, within two hours, to service calls that you specify as Severity 1 (critical). Normal country business hours are defined by your time zone and the prevailing business hours in your country. For example, this might be Monday through Friday, 8:00 a.m. to 5:00 p.m. in North America and 9:00 a.m. to 6:00 p.m. in certain parts of Asia and Europe. National holidays are excluded. Non-business hours are defined as all other hours outside of normal country business hours. Support during non-business hours is provided in English; however, we try to accommodate the local language when possible. An appropriately skilled technical person from your site must be available to work with our technical support staff during the entire time we are performing support services outside of normal country business hours.

8.3 Before contacting the IBM Software Support Center

When you submit a support service request our goal is to resolve the issue in the most expedient way. This involves understanding severity levels and having information available before you contact us.

8.3.1 Understanding severity levels

The severity of the support request defines the required response time, which lets the support team know the impact that the incident has on your business. The response goal for a new Problem Management Record is two business hours. Severity 1 issues are attended to 24x7 until resolved. During this time, we expect a contact at your company to be available, if needed.

Our Severity levels are defined as:

- Severity 1** Critical business impact, or system down. This condition requires an immediate solution.
- Severity 2** Significant business impact. This indicates the program is usable but is severely limited.

Severity 3	Some business impact. This indicates the program is usable but without significant features
Severity 4	Minimal business impact.

A severity level can be changed if circumstances change and the impact to business changes as a result.

When speaking with a software support specialist, be sure to provide the following information, as it applies:

- ▶ This project is facing a deadline
- ▶ Your availability (if available to work with the IBM Software Support Center only during certain times)
- ▶ Alternate methods for contacting you, such as an additional phone number, pager, or email address
- ▶ The name of an alternate, knowledgeable contact whom we can contact about the incident (include contact details)
- ▶ You have other open incidents (problem management records) with IBM that relate to this service request
- ▶ You are participating in an early support (beta) program
- ▶ You have researched this situation prior to calling IBM and have detailed information or documentation to provide which describes the incident

8.3.2 Incident information to have available before contacting support

Before contacting IBM Support, it is important that you take the following initial steps *before* speaking with a software support specialist. You must have certain information available about the incident to be discussed. Here is what is required:

- ▶ Severity of the issue: Issue severity is based on the impact of the issue on your business (see 8.3.1, “Understanding severity levels ” on page 156).
- ▶ Incident description: Describe the issue and any symptoms as concisely as possible, as this assists us in expediting our support to you.
- ▶ Background information: To solve incidents effectively, the software support specialist must have all relevant information about the incident. The following is the most important information that we need to expedite support services:
 - What software and versions were you running when the incident occurred? Include all relevant products, for example, operating system and the version and release of the product in question.
 - Has the incident occurred before, or is this an isolated occurrence?

- What steps led to the occurrence?
- Can the incident be recreated? If so, what steps are required?
- Have any changes been made to the system, such as hardware, NetWare, or software?
- Were any error messages or other diagnostic information displayed? If yes, what were they? It is often helpful to have a printout of any error messages or related error message numbers when contacting support.
- ▶ Ask your technical question: Ask your question in specific terms.

8.3.3 Contact information to have available before contacting support

Before contacting our support team, have the following contact information available:

- ▶ IBM Client Number
- ▶ Company name
- ▶ Contact name
- ▶ Preferred means of contact (voice mail or email)
- ▶ Telephone number where you can be reached

8.4 Submitting incidents electronically

As you plan, install, configure, use, and troubleshoot IBM software products, you must locate information about some tasks. Every IBM product purchase includes electronic support, online resources, tools, and content, available 24x7x365 to meet your key support needs, which leads to:

- ▶ Proactive incident avoidance
- ▶ Faster incident resolution
- ▶ Customized information delivery
- ▶ Collaborative worldwide communities
- ▶ Knowledge base assistance that is comprehensive and dynamic

The following list contains contact information for IBM support. For each, you must sign in with your IBM Service ID and password:

- ▶ Use our Service Request tool to open or update a hardware or software-related Service Request or to check the status of a Service Request.

The Service Request tool is located at:

http://www-947.ibm.com/support/entry/portal/Open_service_request/Software/Software_support_%28general%29

- For help using our IBM Service Request tool or to access entitled documents in the IBM technical support knowledge base, use the Customer Assistance form at:

<http://www.ibm.com/software/support/help-contactus.html>

8.4.1 Online support

When submitting an incident using our IBM Support portal, you can post questions to the IBM telephone support team. Prior to submitting an incident online, you need the same information that is required when you contact IBM by telephone (see 8.3.3, “Contact information to have available before contacting support” on page 158). On our support pages that are located on the web, you can enter the pertinent information into the incident record without having to wait for a return call. This usually saves you time and decreases incident resolution time.

Submitting Severity 1 incident outside of your country’s normal business hours:

To submit a Severity 1 incident, when it is outside of normal business hours in your country, we highly recommend that you contact IBM by voice or the web, indicating the severity of the incident and obtaining a problem management record number. Based on your support contract agreement, the appropriate action will be taken to address the incident.

See 8.4, “Submitting incidents electronically” on page 158 for the IBM support URLs.

8.4.2 Service request tool

The Service Request tool is an online problem management tool for opening, editing, and tracking your open and closed problem management records. Your customer number is used for identification, and the tool can be used for all of your IBM software. The time-saving options incorporated into this tool are:

- Create a new problem management record with prepopulated demographic fields
- Describe a problem and select a severity level
- Submit a problem management record directly to the correct support queue
- Attach troubleshooting files directly to a problem management record
- Receive alerts when a problem management record is updated by IBM
- View reports on open and closed problem management records

See 8.4, “Submitting incidents electronically” on page 158 for the IBM support URLs.

8.5 Submitting incidents by telephone

IBM voice support is available for most software products and to all current support contract holders through a Single Point of Contact telephone number in your country (where available). When you call, provide your IBM Customer Number and the related product name and version.

For our directory of worldwide contacts, visit:

<http://www.ibm.com/planetwide/region.html>

With the initial incident is described, a problem management record (PMR) is created for you.

Problem management record: The problem management record number might be referred to as a PMR number, an Incident number, or a Support Case number. In this documentation, we refer to these, collectively, as PMR numbers.

Make note of the problem management record number for future reference.

Your problem management record is then routed to the proper resolution team. You might be transferred directly to the resolution team, or your issue might be placed in the queue for call back. In both cases, the next person you speak with will be a specialist from the resolution team.

At the resolution team level, your call is then researched, resolved, and escalated, as necessary. Due to the level of specialization that is required to maintain superior technical expertise at the team level, it is occasionally necessary to involve more than one support team in resolving a particular software incident. This is easily handled, as our support teams work as one to resolve incidents.

To investigate your issue, IBM support services might need to access information about your system to evaluate the incident or to recreate the incident to obtain needed information. If the incident is related to configuration, you might need to recreate the incident to obtain the required information. Our software support specialists might request that you send in the resulting information (for example, a test case) or that they connect to your network to view and discuss this with you. To accomplish this, you might be offered several options by the IBM support specialist. We might also recommend reviewing the incident information (or test

case) online by setting up a remote session. This capability can be tailored to the capabilities of your country and your platform.

For telephone support for individual countries, visit the Technical Support section of the IBM Directory of worldwide contacts at:

<http://www.ibm.com/planetwide/>

8.6 Code defects

During the investigation process, the Resolution Team might determine that an incident falls into one of the following categories and will address it in the manner noted:

- ▶ The incident is a known defect-related issue: A fix is provided if available. If no fix is available, the Resolution Team will work with you to find the best feasible workaround.
- ▶ The incident is a new defect: The IBM Resolution Team will work with you to create an Authorized Program Analysis Report or a Software Problem Report to track the resolution of the defect. These Authorized Program Analysis Reports and Software Problem Reports are routed to the appropriate development teams.
- ▶ The incident is not defect-related: If the Resolution Team determines that the issue is not related to a defect in the supported IBM code, we will continue to bring the incident to resolution only at your request and with your concurrence, under a separate services agreement. For details, contact your IBM Representative.

8.7 Non-critical support questions

Support services for “how-to” questions are available for non-critical issues, such as:

- ▶ Installation
- ▶ Usage (how-to)
- ▶ Specific use/installation questions for documented functions
- ▶ Product compatibility and interoperability questions
- ▶ Technical references to publications, such as Redbooks or manuals
- ▶ Assistance with interpretation of publications
- ▶ Providing available configuration samples
- ▶ Planning information for software fixes
- ▶ IBM database searches

This level of support is available using the same contact number for your country as listed in 8.5, “Submitting incidents by telephone ” on page 160.

8.8 Checking the status of a problem management record

Check the status of problem management records using the service request tool. The Owner field in the problem management record indicates the name of the technical support engineer assigned to your record. Access to the service request tool is located at:

<http://www-306.ibm.com/software/support/probsub.html>

8.9 Escalating an incident

If your problem management record is not progressing as quickly as expected, contact Support Services and ask that a request for a call back be added to your problem management record to review the incident severity level. If it is after hours, ask that the incident be escalated so that it receives prompt attention and management focus.

8.10 Incidents not covered by the IBM Software Support Center

The IBM Software Support Center and S&S services do not address the following incident types because they are beyond the scope of these services:

- ▶ Performance analysis
- ▶ Writing, troubleshooting, or customizing client code
- ▶ Extensive configuration questions
- ▶ Recovering a database, or data recovery
- ▶ Consulting

Most of these situations require some form of assistance from our Services area. For further information about these, see Appendix C, “Services offerings” on page 203 or contact your IBM software sales representative.

An Accelerated Value Program offering is available that provides a more proactive program for support and software deployment.

8.11 Client responsibilities

To resolve your incident, our software support specialists might need to obtain information about your incident for analysis, which includes relevant logs, storage dumps, or traces. Gathering this information is often a crucial step toward a resolution. We ask that you capture documentation at the time of a failure. Our support specialists might also ask that you apply a trap or trace code to your system. You are also responsible for obtaining fixes (available as a download or shipped media), applying the fixes to your systems, and testing the fixes to ensure they meet your needs. Occasionally, removal of installed fixes can be necessary in the process of incident isolation. Occasionally, fixing an incident requires the installation of a later release of software, as certain fixes cannot be retrofitted to earlier code.

To carry out these tasks, the IBM Client Team might offer the assistance of our Lab Services team, or you can engage a services provider such as IBM Software Services or an external services organization to assist you for an additional fee. If you are involved in a services engagement in which Software Services or an external services organization is designing and implementing an application for you, the statement of work needs to be clear as to whose responsibility it is to work through suspected code defect issues with IBM Support to ensure proper entitlement for remote support.



Software deployment success stories from our clients

9.1 What this chapter is about

This chapter describes a case study from one of our clients. In this case study, you learn about the best practices employed to plan, implement, and support the enterprise-wide deployment of an enhanced messaging and collaboration software platform. This initiative was recently undertaken by a global financial services firm in partnership with IBM. The key concepts for the initiative include:

- ▶ The importance of identifying specific business objectives related to a deployment, where significant value can be measured in business terms
- ▶ How the IBM Software Services group can be used to meet deployment goals
- ▶ The benefits of establishing global software configuration standards
- ▶ Server platform selection and how it can affect deployment architecture
- ▶ Considerations for heritage platform co-existence and data migration
- ▶ Real world deployment challenges and how they can be addressed
- ▶ Why a comprehensive education and communications plan is critical for success
- ▶ Software deployment package design and quality control testing
- ▶ Accelerated product enhancements using user feedback and collaborative design
- ▶ Why a comprehensive approach to performance tuning is required and beneficial
- ▶ The need to develop and document best practices for systems administration

9.2 Client background

In 2007, two large financial services organizations engaged in a “merger of equals” so that they can use their strengths in various complimentary lines of business and provide a more complete portfolio of offering across a global market. The lines of business included wealth management, asset management, securities servicing, and treasury services. At the time the merger was initiated, one firm employed approximately 27,000 people, and the other, approximately 15,000. The merger was a multi-year effort and involved consolidation of human resources, business processes, and office locations.

When completed, the merger had a substantial positive impact on the new enterprise and its position in the financial services industry. Many challenges and

opportunities were presented to the firm's newly merged technology services organizations.

IBM worked as a trusted partner and engaged in planning, project management, implementation, and support for a variety of key IT initiatives. This deployment case study focuses on one of the client's most critical projects: the implementation of a single email and collaborative application infrastructure. The platform that was needed to support the integration of the two firms during the merger process provides the ability to more effectively conduct business and use the intellectual capital and experience of worldwide subject matter experts (SMEs) on an ongoing basis.

The CIO, one of the key stakeholders for the project, wanted to go beyond email. His vision was of a unified communications and collaboration platform that:

- ▶ Used new and existing Notes applications
- ▶ Supported integration with other IBM and third party applications
- ▶ Enabled real time collaboration using instant messaging and web conferencing
- ▶ Supported future integration with Voice over IP (VoIP) and videoconferencing technologies
- ▶ Provided "collaboration in context" of the user's role and work tasks

In addition, the CIO saw the value of social networking tools, such as rich user profiles containing more than just contact information, and communities of practice, blogs, wikis, simple file sharing, and tagging and rating content.

The implementation of a new email platform needed to be accomplished with a minimum of disruption and downtime because several key business units relied on email for communication of critical transactions.

9.3 Solution

A deployment best practice is to develop an overall solution design and architecture that addresses current needs of the business, while providing the means to support anticipated future requirements.

The joint IT organization conducted an extended evaluation of both email platforms and ultimately selected Lotus Notes® and Domino®. They also decided to upgrade the existing environment to Notes and Domino 8, which was the latest version available at that time.

IBM Lotus SameTime was already in limited use for instant messaging and web conferencing. It was decided to expand the deployment of SameTime for instant messaging by utilizing the capability embedded in the Notes 8 client. A benefit of this approach was that it enabled real time collaboration in the context of work being performed in the Notes client. The initial deployment (and subsequent upgrades) of SameTime can also be packaged with Notes.

After a parallel evaluation and proof of concept effort, it was also decided to implement Lotus Connections to support business-ready social networking, for which the initial deployment focused on employee profiles and communities of practice. A unique aspect of Notes was the ability to add Eclipse-based widgets and plug-ins to the Notes Sidebar, which supported the integration of Connections functionality into Notes.

Key factors in the client's decision included the integration of SameTime and Connections into the Notes 8 client, and the ability to use thousands of existing Notes business applications. These collaborative applications might not easily be converted to another platform.

The long term strategy included the integrating unified communications into the Notes client, such as VoIP and desktop videoconferencing.

9.4 Deployment strategy

In this section, we describe the strategy that was implemented and devised.

9.4.1 Implementing global configuration standards

A key success factor for a large upgrade and platform migration initiative was the imposition of global standards for both server and client configurations. Previously, the client had numerous configurations which were not well documented. This complicated the upgrades and support of the server and client environments.

IBM worked with the client's project team to develop a limited number of configuration templates for Domino servers (Directory, hub, mail, and application servers) and Notes clients.

Additional considerations included support for desktop users, mobile computer users, and roaming users who occasionally moved between offices and PCs. There were also language and regionalization considerations that were necessary to support global operations at numerous branch locations.

9.4.2 Domino on System p and AIX

The client decided to implement Domino 8 on IBM System p servers running AIX. This facilitated large scale server consolidation, with the goal of reduced hardware and administration costs, higher reliability, and greater scalability than Windows servers. A factor that also influenced this decision was that the client was already using System p servers for other applications, and had personnel skilled in the operating system-level administration of these servers. Domino servers were implemented in Domino partitions on the System p servers, and then clustered for failover purposes. A multi-data center configuration was also employed for disaster recovery purposes.

Mail server co-existence during migration

Mature Exchange mail servers operated alongside the Domino environment, supporting users that had not yet been migrated and Exchange public folders and applications that get migrated in the future.

A gateway solution was implemented to support cross-platform mail routing, calendaring and scheduling, and address lookups during the migration period.

IBM Services to support planning, pilot, and production deployment

The client's management team recognized the importance of partnering with the IBM Software Services group to help ensure a successful outcome for this effort. At a high level, the primary benefits of this strategic partnership were:

- ▶ The ability to use the knowledge of IBM architects who had successfully implemented large Notes and Domino 8.x environments for other clients
- ▶ The benefits of IBM software deployment methodology and best practices
- ▶ The ability to use the experience of IBM project managers to help ensure critical milestones were reached on schedule
- ▶ IBM technical staff supplementation to accelerate implementation and configuration of Domino servers and deployment of Notes client software
- ▶ The IBM services organization recommended or provided, proven third party applications to support interoperability and data migration
- ▶ IBM consultants provided best practices advice on help desk support programs, user education plans, and corporate information campaign development

Multiple teams within IBM were engaged early in the project to help ensure a successful deployment. IBM provided support throughout all phases of the deployment and subsequent upgrades of the Domino server and Notes clients.

The technical sales organization initially worked with the client to provide:

- ▶ Business and technical requirements analysis
- ▶ Solution visioning
- ▶ Integrated product capability demonstrations
- ▶ Technical documentation for planning purposes
- ▶ Deployment best practices reference materials
- ▶ Product strategy and roadmap information
- ▶ Engagement with the IBM services organization

The IBM Software Services solution architects and advanced technology services IT specialists then provided assistance with:

- High level planning of Notes and Domino 8 upgrades and migration
- Domino architecture design considerations
- Server platform and operating system selection
- Initial server sizing recommendations

These planning activities were crucial because they laid the groundwork that helped to ensure the success of the deployment and provided a solid platform for growth.

The client then engaged IBM Software Services to provide consultative services including implementation of a Notes and Domino 8 lab environment:

- ▶ Co-development of a server and client upgrade and migration plan
- ▶ Migration and co-existence tools selection and configuration
- ▶ Notes Client deployment planning and installation package design
- ▶ Design of Domino server configuration templates
- ▶ Assistance with initial server and client deployments

Expanded IBM involvement in deployment

It was originally envisioned that the client provide overall project management followed by ongoing production Domino server deployments and Notes 8 client upgrades and migrations, including data migration. As the project progressed, a strategy change was required. It was determined that, to meet milestone dates, additional IBM assistance was required. IBM provided dedicated project management resources and technical resources for implementation. A jointly staffed, dedicated workgroup was established to focus on Notes 8 client deployment, and the results were positive.

Notes deployment package Quality Assurance testing with IBM

One of the client's priorities was to deploy the latest versions of Notes with a minimum of disruption to the business. To ensure that upgrades went smoothly from a technical and usability perspective, the team instituted a quality assurance testing initiative.

The Notes quality assurance (QA) testing process included these focus areas:

- ▶ New Notes functionality
- ▶ New Notes code fixes
- ▶ Performance and stability testing
- ▶ Determine if code “regression issues” were introduced using hot fixes or fix packs
- ▶ Mail template customizations
- ▶ Notes 8.x plug-in functionality, including user authentication

QA testing was also performed on the installation scripts that were used to deploy the Notes client and Notes upgrades to users’ desktops using electronic software distribution tools. The development of scripts needed to take into account several variables with respect to workstation hardware and software configuration, such as geography and language, operating system version, system memory, free disk space, existing versions of Notes to be upgraded, and whether a local mail replica existed.

An additional consideration was that many Notes users were using custom developed roaming user functionality. This functionality copied Notes desktop configuration data from the user’s workstation to a file server at the close of each work session. This process made it possible for a traveling user to access their personalized Notes client configuration from another workstation. The Notes upgrade installer needed to work in this environment, which required additional QA testing.

The deployment tool needed to provide programmatic feedback to the deployment team on various error conditions, for example, why an installation cannot be completed. These different failure scenarios needed to be tested.

Another consideration was the network bandwidth utilization when pushing new or updated Notes client code down to desktops for installation. From a quality assurance perspective, performance benchmarking needed to be performed to determine how long an installation or upgrade would take, and whether network performance would be impacted.

A QA test lab environment was set up to facilitate the testing process. Workstations with a variety of configurations were configured in a test network environment. Detailed test scripts were developed so that QA testers can follow a consistent process.

At a high level, our best practices recommendations included:

- ▶ A QA test process that would encompass features, fixes, performance, and stability

- ▶ Sufficient time for testing, evaluation of results, and issue remediation
- ▶ A dedicated test environment that would accurately model production client configurations (and servers and networks)
- ▶ A test script for technical resources to follow
- ▶ The availability of sufficient technical personnel to perform QA testing and remediation in the time frame required
- ▶ Test the software deployment methodology, in addition to the code

9.5 Technical challenges

Several of the technical challenges, from an infrastructure perspective, included multiple mail and PIM platforms (IBM Lotus Notes and Microsoft Exchange):

- ▶ The Notes environment was not current, as the latest user interface design, features, and platform capabilities were not available to administrators, application developers, or end-users
- ▶ Multiple directories, including Domino Directory and Active Directory
- ▶ Multiple email archiving platforms
- ▶ Multiple server hardware platforms and operating systems
- ▶ Lack of standardization of mail and application server versions and configurations
- ▶ Large and small office locations across the United States, in Europe, and in Asia, connected by a network infrastructure of varying bandwidth and capacity
- ▶ Multiple heritage data centers, with planned new data center construction, and associated server consolidations and relocations)

Deployment challenges related to the upgrade of existing Notes users to Notes 8 and the migration of Outlook users to Notes, included infrastructure and server-side challenges:

- ▶ Directory consolidation and data normalization
- ▶ Develop directory hierarchy for the consolidated enterprise
- ▶ Select the optimum server hardware and operating system platform
- ▶ Develop the optimum server infrastructure, including provisions for disaster recovery
- ▶ Create a limited number of server configuration templates

- ▶ Define a process to migrate Exchange mail, PIM data, and public folders to Notes
- ▶ Convert Notes mail and PIM data to the latest version format
- ▶ Optimize mail routing for temporary co-existence of old and new mail platforms
- ▶ Upgrade existing Notes application servers and ensure compatibility
- ▶ Migrate or re-write existing MS Exchange-based applications
- ▶ Validate compatibility or implement compatible versions of third party applications for archiving, anti-virus, and mobile device support (for example, Blackberry)
- ▶ Make tools available to monitor server performance and availability and reporting capabilities

Client-side challenges:

- ▶ Select a specific build and configuration of Notes 8 client to be deployed
- ▶ Determine Notes feature set for deployment, including plug-ins
- ▶ Develop client upgrade packaging and deployment scripts
- ▶ Develop client migration process (Outlook to Notes)

9.6 Organizational challenges

Challenges from an organizational perspective included the need to:

- ▶ Provide strong project management to meet milestones and limit risks
- ▶ Obtain a sufficient quantity and types of skilled technical resources to accomplish goals
- ▶ Develop a corporate communications plan to keep users informed about the upgrade and migration timetable and potential impact to the business
- ▶ Develop tactics to foster user acceptance and adoption of new applications
- ▶ Develop an education plan to provide effective enablement to 42,000 users
- ▶ Develop more effective operational procedures for server administration
- ▶ Train multiple levels of support personnel on new products
- ▶ Train developers to effectively use the Notes Domino 8 platform
- ▶ Determine how to survey users to gauge their level of acceptance and identify usability issues

- ▶ Provide support to subsidiary companies with independent IT organizations
- ▶ Effectively interface with IBM to obtain technical support and provide feedback on feature requirements

9.7 Deliverables and outcomes

In this section, we discuss the deliverables and outcomes of this implementation.

9.7.1 Notes and Domino enhancement process

Because Notes 8 was deployed to an increasing numbers of users, many feature enhancement and fix requests were generated from the global user community. Additional issues were uncovered by the client's project team during deployment planning and testing. The Notes development team partnered with the client's IT organization, and worked closely with them on an ongoing basis to improve Notes functionality, usability, stability, and performance. Notes mail template customizations and other enhancements were also developed and implemented to meet specific user requirements.

While these activities were not anticipated at project inception, they were found to ultimately be beneficial and a requirement for success because they increased the overall user acceptance of Notes and Domino, and they increased organizational productivity.

Notes feature enhancements and fixes were developed, based on the following process:

- ▶ Historical data from end user support calls was analyzed by the client and the IBM client team to categorize and quantify the different problems experienced. Several requests and issues were determined to be product related, and others were process related (such as password resets or email addressing questions) The most frequently experienced problems were prioritized for follow-up and action. This included the enhancement of administrative and support processes, and providing additional enablement for end-users.

User interviews were conducted by joint client and IBM client teams, in multiple locations and at different times, to obtain feedback on usability, functionality, and performance. Detailed notes showed patterns in user requests, and, in many cases, highlighted the need for additional enablement.

User personas were also developed to detail the specific and unique ways that Notes was being used by specific line-of-business users. This facilitated the development of customized Notes configuration profiles that were tailored

to each use case. Additional feedback was obtained from end-users at enablement and Q&A sessions, and internal IT Expo events.

- All feature and fix requests were prioritized by the client's IT management to determine the highest priority and highest value items. The top ranked items were then provided to IBM for action. The Notes development team delivered many enhancements and fixes using "point releases", fix packs, and hot fixes based on this direct client feedback. Periodic joint status meetings were conducted to review a detailed action item list and plan for future fixes and enhancements.

This process continued throughout the Notes 8.0.x client deployment, and then for the subsequent deployment of Notes 8.5.1, which began in Q4 2010.

9.7.2 End-to-End Performance Optimization: Consultative Study by IBM

At the client's request, IBM conducted a comprehensive performance review. Both Domino server and Notes client configuration templates were analyzed, from a performance perspective, and configuration changes were recommended. IBM also provided high level recommendations for network performance optimization.

These efforts included real time observations of Notes client performance for different parameters, including: Notes start-up time, delay in opening new application windows, time to creating new mail messages and calendar invitations, and time to create mail folders and move a message to a folder. In order to perform a balanced assessment of Notes performance, data was collected at several office locations in the United States and in Europe.

The client globally implemented Notes 8 using an online mail template that ran on the Domino server. This significantly impacted Notes client performance, especially in office locations where network bandwidth was constrained.

The client's mobile workers were already using local mail replicas, so they can continue to work with Notes when disconnected from the network. IBM recommended a broader implementation of Notes mail file replicas on user workstations to improve performance.

In Proof of Concept (PoC) testing, "Local Notes" significantly improved the user experience. The deployment of mail file replicas on workstations also enabled users to continue to be productive in the event of network outages. A consideration was that Notes location documents, especially data replication parameters, needed to be optimized for this scenario.

9.7.3 Mail routing changes to support more accurate mail routing

IBM assisted the client with the optimization of their Domino mail routing design to improve the accuracy of mail delivery. The client historically used a Domino mail routing feature called “short name routing” to enable mail to be delivered based on only a partial match of the email address to Domino directory entries. A problem was observed, which was due to the use of a large number of Internet mail domains to support multiple lines of business for client communications. Several times, users provided only a partial email address. This would result in multiple name matches across different mail domains in the environment, where the first part of the email address was the same.

IBM recommended that the client implement full name routing. This process required an exact match to route Internet mail within the enterprise. The result of this configuration change was more accurate delivery of mail throughout the enterprise.

There were two important planning considerations prior to making this change. First, many Notes applications were written that allowed short name addressing of mail. These applications needed to be modified and tested prior to the routing configuration changes. In addition, a user education program needed to be instituted, to ensure that everyone understood that complete email addresses would be required for mail delivery.

9.7.4 Notes 8.5.1 design review, deployment planning, and product roadmap sessions

IBM conducted multiple design review and deployment planning sessions with the client's IT organization. These sessions were attended by IBM SMEs who discussed best practices and use cases derived from other major Notes and Domino deployments.

In conjunction with the design review and planning sessions, IBM client architects, user interface designers, and development managers obtained direct feedback from the client's executives, IT organization, and end users, about feature enhancements. Product roadmap information was shared with the client, to enable them to make better long-range planning decisions.

9.7.5 Notes quality assurance testing

The client was challenged to meet their deployment timeline for Notes upgrades, given the technical staff available for quality assurance testing. They used the IBM Software Services technical staff augmentation services to speed QA

testing of Notes 8.5.1 software deployment automation scripts, deployment code packages and multiple, standardized Notes client configurations.

Test workstations were set up by the joint IBM and client technical team in a dedicated test environment, and several test cycles were performed.

This facilitated a rapid and iterative design process for Notes deployment scripts, where observed problems were corrected, and re-tested by the on site testing team.

IBM also provided project management and Notes development team resources for planning an evaluation of QA testing results. This, too, helped to ensure a successful outcome.

9.7.6 Administration best practices and knowledge sharing with the IBM Domino administration team

The client met with members of the IBM global Domino administration team, to share best practices for Domino deployment, high availability architectures, performance and availability monitoring, and automation for server administration. There was additional collaboration with the IBM client team responsible for Notes client standard configurations, packaging, and deployments.

In an additional engagement, an IBM SME provided an in-depth, consultative review of the client's existing Domino administration practices, with detailed recommendations for process enhancement.

These activities had a major impact on the clients' Notes and Domino 8.x and 8.5.x environments, making them more effective and operative.

9.7.7 Application server upgrade and application compatibility review of Notes 8.5.1

IBM participated in the application review process to provide technical documentation of potential impacts of upgrading Domino application servers from Domino 6.5 or 8.0.2 to Domino 8.5.1. IBM SMEs also provided recommendations on the application testing process and the various tools that can be employed to facilitate this. The testing process was completed by the Notes application development teams in the various lines of business. The results of the testing revealed that there was minimal impact to existing applications by upgrading to Domino 8.5.1. IBM also provided remote technical support personnel who were available during the server upgrade process to respond to any issues encountered.

The best practices lesson here is that time must be included in a project plan for comprehensive application testing and potential remediation whenever a project involves upgrades to Domino application servers and also to Notes clients. A methodology must be developed for testing. If there are a large number of applications to be tested, the sample must be representative of each type of application. Clear responsibility for the testing process must be assigned to developer and QA resources. In addition, results must be methodically documented, and regular status check meetings need to be conducted, until the test phase is completed. These activities will help ensure that there will be no unanticipated problems with business critical applications after the roll-out of the server (and client) upgrades.

9.7.8 Notes Support Best Practices Review

IBM provided a SME to work with the client's support organization. A joint review was conducted, which included the methods and tools to provide both site help desk support (and on-site technical support) to Notes users. Enhanced workflow processes were recommended by IBM. Customization and content updates, reflecting new Notes 8.5.1 features, were implemented for both technical support and end user self-help online databases. IBM assisted the client with this effort.

An analysis was also performed of historical data for a large number of support incidents across the enterprise. Classification of types of support issues, and patterns in responses and outcomes, were derived from this data. It was observed that a significant number of complaints were related to administrative functions, such as the time it took to complete password resets or recover forgotten passwords. IBM made recommendations on how to streamline these processes.

The key lessons learned included:

- ▶ Help desk staffing, training, and applications, such as call logging and technical support knowledge bases, must support the volume of anticipated calls which result from an enterprise application upgrade or migration. Delays in response time will adversely affect user satisfaction with newly deployed products.
- ▶ It is advantageous to capture detailed metrics on support calls, especially by categorizing the different types of issues, so that trends can be observed. These trends can point to the need for additional user training, changes to operational procedures, or requirements for product functionality or usability enhancements.
- ▶ Periodic reviews are necessary to track the progress of initiatives, as this can reduce the volume of help desk tickets and improve response time and time to resolution. For example, a reduction in the number of help desk tickets related

to a specific end-user application feature can substantiate the benefits of a user interface design enhancement, the implementation of a bug fix or providing additional training to users. Help desk ticket statistics can be employed to complement the information provided by user satisfaction surveys and user interviews.

9.7.9 Education plans and the joint work with IBM

The design and implementation of an effective education plan is critical to the success of a large scale software deployment, especially one that includes end-user messaging and collaboration applications. User productivity is greatly enhanced and their satisfaction increased if they are educated about the new features and capabilities of a product, rather than being left to discover these on their own. It is also important to provide users with the knowledge they need to feel comfortable moving from one application to another, such as Outlook to Notes, or from one version to another, such as Notes 6 to Notes 8.5.

Education plans can incorporate a variety of learning methods, such as instructor-led classroom and web-based training and self-study and reference materials for those who have limited time or prefer independent learning. Education plans must also take into account the volume of users to be trained, and the geographic distribution of users at different branch office locations. This factor has a major impact on the logistics and cost for on-site training. The availability of training facilities at each location is also a factor. Another consideration is that off-the-shelf course material or reference information might need to be customized to match the specific implementation of the product in the client environment. For example, certain features of the Notes client might not have been implemented, or the mail template might have been customized to meet business requirements.

For this project, education was provided through a combination of on-site enablement sessions led by IBM, web-based training, instructor-led training, weekly telephone Q&A sessions, and self-help materials, such as the Notes Multimedia Library, which were made available to users on the company intranet.

An additional area of focus was the training of the client's help desk personnel to enable them to identify and resolve problems more quickly. IBM provided customized enablement to help support personnel and address the most frequently observed user issues. An IBM education partner also provided training classes for help desk personnel.

The client had several subsidiaries whose IT organizations worked in a semi-autonomous fashion with respect to technology implementation, upgrades, and end-user support. IBM worked with the client to better understand the

technical challenges and competencies of these groups and to provide enablement and additional technical support as required.

9.7.10 Corporate Communications Plan—Joint Work with IBM

IBM project managers, product marketing managers, and graphic arts specialists supported the client's Corporate Communications Executive and IT organization in developing and executing a communications plan to inform the user community about the new features and business benefits of Notes 8, SameTime, and Connections.

When Notes 8.5.1 upgrades took place, additional support was provided to provide end-users with information about the benefits of this enhanced client.

An effective communications plan was a critical component for success. Outlook users needed to be informed about the schedule for the migration to Notes and the impact on their business. They also needed to be educated about the features of Notes, and how to obtain additional support. Users of older versions of Notes also needed information and enablement on the enhanced capabilities of Notes 8.5.1. The communications plan also helped employees who experienced performance and usability issues to understand what the joint IBM and client IT project team was doing to address these issues. The communications campaign demonstrated to these users that their feedback was being heard and acted upon. This produced tangible results.

9.7.11 Lotus Connections integration with Notes and the IBM widget design assistance

The client developed and integrated custom Notes widgets into the Notes 8.5.1 client template. These widgets provided integration with Lotus Connections Profiles, communities and file sharing features, enabling Notes users to be more productive. The client also integrated the SameTime business card pop-up feature with Connections Profiles, to provide richer, more actionable information to users.

IBM provided developer resources to help the client implement these features in the context of their enterprise directory and single sign-on security environments.

From the perspective of deployment best practices, this example highlights the need to carefully plan for and test multi-product or multi-component integrations when using single-sign on in an enterprise, given that each product or component might support different single sign-on techniques. It was also beneficial to the client to partner with the IBM product development team because they were able to not only get support for required customizations to

support their single sign-on requirements but also product roadmap information that helped to guide their implementation methodology.

9.8 IBM deployment best practices as applied to this project

This case study documents the software solution architecture and global enterprise deployment activities of an IBM client. In this section, we map these activities to the best practices for deployment, which we discussed in Chapter 3, “Accelerating software deployment using best practices” on page 47.

9.8.1 Identifying the Executive Business Sponsor and stakeholders

This project impacted a core collaborative application (email and personal information management) that was critical to productivity across all lines of business. In addition, it involved a substantial financial investment and a commitment of technical resources.

The IBM client team had a previously established, “trusted partner” relationship with the global CIO. Strong business benefits associated with the project were identified, and the strategy and goals were communicated to multiple levels of management, including CTOs and CIOs of the key lines of business and Directors and Managers in the technical organization.

Buy-in from key stakeholders, both business and technical, was necessary to ensure a successful outcome. IBM conducted a series of executive level presentations and demonstrations that were tailored to address key business benefits of relevance to the firm.

For this project, stakeholders also included power users of Notes and Domino, such as administrative assistants who support managers and executives. These application users provided valuable feedback to the joint deployment team, related usability and performance, and desired feature enhancements and training requirements.

Stakeholders also included the client's server administrators, application development community, and on-site and telephone support personnel.

9.8.2 Defining a governance structure for the deployment process

The client has a well-defined IT governance structure for each phase of the project, including:

- ▶ The initial review process leading to the decision to deploy Notes and Domino 8
- ▶ Their subsequent decision to upgrade to the Notes and Domino 8.5 code stream
- ▶ Decisions related to Domino server architecture and configuration
- ▶ Decisions related to changes to the global mail routing architecture
- ▶ Contents and approval of the custom Notes client package and deployment scripts
- ▶ Decisions impacting the order of Notes 8.x deployment / upgrades to LOBs
- ▶ Decisions related to education for technical personnel and end users
- ▶ Decisions related to an corporate information campaign to promote user adoption
- ▶ Prioritization of software feature and fix requests to address enterprise priorities
- ▶ Technical support issue escalation, both internally and to IBM Support

Because the client's operations are global in scope, the governance process was also tied to geographical impact of a particular decision. Another governance parameter was whether the decision affected a single line of business, multiple lines of business, or the entire enterprise.

An example of the governance structure employed by the client is:

The technical team, in multiple working sessions, discussed Notes configurations and deployment scripts. These meetings were moderated by a project manager/team leader. Subject matter experts from the client's technology services organization and IBM consulting and product development teams collaborated on solution design. A consensus was usually achieved on the best technical configuration to employ. However, in some cases, the decision was made unilaterally by the project manager.

The team's decision was then reviewed and approved by a Technical Director (2nd line management). The project manager kept the implementation on track, and monitored and reported on status to senior management. High-level solution design and timetable and completion status were reported by the Technical Director (and IBM) to the global CIO and subordinate CIOs for impacted lines of business on a periodic basis.

9.8.3 Centralizing software fulfillment and license management tools

This client has a corporate procurement and asset management department. Procurement negotiates the contents, pricing, and terms of the Enterprise License Agreement with IBM. Asset Management tracked deployment of software both by the enterprise level Technology Services Group and the technology organization's individual lines of business.

Tracking is currently facilitated using the IBM Enterprise Software Management Tool. IBM provides this application to clients. Deployment data provided by users is entered by Asset Management, and deployment reports are generated for both the client's and IBM review.

Software supporting this project was downloaded from the IBM Passport Advantage online web site by the Technology Services organization and then distributed to target servers for installation at several data centers in the United States, Europe, and Asia Pacific region. Additional tracking reports are available through Passport Advantage, including download reports that can be sorted and filtered by primary contact, person downloading, Passport Advantage site, part number, and date.

A current challenge that the client and IBM face is that there are many active Passport Advantage sites and authorized users who can download software. This complicates both the tracking and internal charge-back accounting processes. Sometimes, software that is downloaded might not be reported to Asset Management on a timely basis.

IBM encourages a more centralized approach, where requests for IBM software downloads in support of deployments are channeled through a review and approval workflow process that is administered by corporate Procurement, and then a limited number (or single) of Passport Advantage sites are used for download and software distribution to lines of business. In some cases, an IBM distribution partner is employed to control the download process, and the partner also provides enhanced deployment reports to the client.

9.8.4 Engaging consulting and implementation services

The client engaged IBM software consulting and implementation services early in the life cycle of this project.

Prior to the decision to proceed with the Notes Domino 8 upgrade/migration, an IBM Software Services Solution Architect lead solution visioning and architecture design sessions with the client's technical team.

The client then formally engaged IBM Software Services to help them design a Domino 8 server infrastructure and standard server configuration templates, supporting both mail and applications. Software services also worked with the client to develop a Notes upgrade/migration methodology, including selecting and implementing migration tools. The IBM on-site services team also assisted the client in building a Domino 8 lab environment, a Domino pilot environment, and an initial pilot deployment of Notes 8 to users. The services team also developed and delivered end-user and administrator enablement sessions and supporting documentation and user self-help materials.

When the client's technical team began to build production Domino servers, started upgrading large numbers of users from Notes 6.5 to Notes 8, and migrating Outlook users to Notes, they found that they needed additional technical resources to keep on track with the project timeline. IBM Software Services project managers were engaged to partner with the client's project manager, and IBM provided additional on-site resources to assist with implementation of client deployments and data migration. With IBM assistance, the production deployment of Notes and Domino 8 was completed successfully.

Later on, the client engaged the IBM services team to:

- ▶ Contribute to Notes Domino 8.5.1 upgrade planning sessions
- ▶ Conduct health checks to optimize the performance and stability of their production Domino environment
- ▶ Certify the redesign of SMTP mail routing
- ▶ Provide Notes 8.5.1 deployment package quality assurance testing
- ▶ Provide assistance with Domino administration and support best practices

Overall, the assistance provided by the IBM services organization proved to be a crucial element to the successful completion of each project milestone.

9.8.5 Defining your return on investment strategy and time to value

The client's Global CIO and direct reports in technology management formulated a return on investment (ROI) strategy that was based on these key factors:

- ▶ Consolidation of existing mail and application servers running on the Windows platform to more scalable and reliable IBM pSeries® servers running AIX. The benefit of this was expected to be reduced operational costs associated with server hardware and systems administration.
- ▶ Synergy and productivity gains to be realized by employing one client supporting traditional email and personal information management, business applications and additional tools including Sametime®, Lotus Connections and Quickr™.

- ▶ Ability to take advantage of previously developed Notes applications across the enterprise.
- ▶ Rapid application development and reduced time to value for new applications.
- ▶ Potential integration with Unified Communications (voice over IP and videoconferencing) applications that were integrated with Notes 8.

9.8.6 Conducting workshops to assure deployment readiness

IBM assisted the client by providing resources from the Software Services, Development, Product Management, and Technical Sales organizations to lead and participate in multiple readiness planning and technical design sessions for both the initial Notes and Domino 8 deployment and the 8.5.1 upgrade.

Workshops were conducted by IBM for many of the client's Domino developers, to familiarize them with the new features and development tools available in the latest product releases.

Additional workshops were provided by IBM, which focused on Notes troubleshooting techniques, Domino administration, and Notes support best practices.

9.8.7 Identifying strong project and resource management

The client identified and assigned technical project managers to focus on the Domino server and Notes deployment components of the project. They partnered with project managers from the IBM services organization for some phases of the overall project.

9.8.8 Committing to self-sufficiency

The client's executive management committed to building appropriate skill sets of their existing technical organization and to adding additional resources necessary to properly administrate and support the environment and the user community. This proved to be a challenging goal due to the following factors:

- ▶ Resources were needed to support global deployment with servers positioned in three different regions of the world and at multiple sites in each region
- ▶ Lack of standardized configurations complicated administration and support
- ▶ Implementation of server hardware and operating system platform which existing Domino administrators were not familiar with

- Need to educate a large number of existing Notes users on the new features of Notes 8, and a large number of Outlook users who had migrated to Notes

IBM and IBM education partners provided formal and informal enablement to server administrators, developers and support personnel.

In addition, IBM shared Domino administration and Notes deployment best practices information (including best practices derived from IBM experience building, deploying, and managing its global Notes and Domino environment).

IBM and the client's technical organization also provided on site and remote Notes 8 enablement to end-users.

All of these activities helped the client to become more self-sufficient.

9.8.9 Communicating and marketing the vision

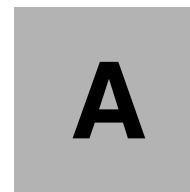
IBM partnered with the client's senior management team and Director of Corporate Communications to help communicate and market the value of Notes and Domino as more than email, and how it provides additional benefits and enhances productivity.

A communications and user education campaign was planned and implemented. IBM provided project management, content, and graphics design assistance for development of a variety of electronic and printed collateral items for marketing to the user community.

IBM also reviewed scripts for video briefings, which were delivered by IT executives.

IBM partnered with the client's IT to present "What's New in Notes 8" demonstrations and Q&A sessions at many client locations and participated in IT Expo events to give users additional opportunities to become familiar with the new tools that were provided to them.

Finally, IBM partnered with the client's technical organization in an outreach program to get feedback from Notes users worldwide, which enabled the client to prioritize feature enhancement and fix requests that were most important to them. IBM then delivered product upgrades and fix packs that provided the maximum value to the client. When these new features and customizations were delivered to users, they realized that someone was really listening and acting on their concerns.



The IBM Enterprise License Agreement

The IBM enterprise license agreement and how it provides value to the client

An enterprise license agreement (ELA) is a contract vehicle for a longer term agreement between the client and IBM. ELAs were originally created as a longer term contract for IBM z/OS software only. Since that time, ELAs have expanded to other software (also non- z/OS contracts). The following types of contracts are available under the ELA umbrella:

- ▶ Enterprise License Agreement
- ▶ Enterprise Software and Services Offering
- ▶ Software And Services Special Offerings
- ▶ Software Relationship Agreement
- ▶ Software Relationship Offerings

Table 9-1 provides an overview of the ELA types.

Table 9-1 Overview of ELA types

	Including z/OS SW (MLC)	Without z/OS SW (MLC)
Non-financed	Enterprise Software and Services Offering	Enterprise Software and Services Offering
Financed	Software Relationship Offerings	Software Relationship Agreement

With an ELA, the client and IBM commit to a longer term partnership relationship that provides benefits to both. IBM can provide much better guidance for the optimal use of IBM software because they have a better understanding of the client's environment and goals. In this way, IBM can provide guidance about the organization, skills, and processes that are needed to maintain and operate the environment.

Potential ELA content

Most contracts under the ELA umbrella can include the following options:

- ▶ Services included in a “package”
- ▶ Value basket:
 - Including services
 - Excluding services

- ▶ Substitution (usually within a brand)
- ▶ Possible extension after a defined period and with the same conditions as the original contract

Services

An implementation plan is usually included during the planning phase and contains:

- ▶ Identification of resources needed for implementation, including skills and availabilities
- ▶ Level of a technical support needed from IBM
- ▶ Education needed for successful implementation and the operation of new technology

These services might be provided by:

- ▶ Client internal resources
- ▶ IBM Business Partner resources
- ▶ IBM resources

Estimates of service support needs can be included in an ELA.

Value basket

Value basket is an open budget-included contract that can be used for:

- ▶ A new license purchase under the same terms and conditions as the other licenses in the contract
- ▶ Services under the same terms and conditions as the other services in the contract

In certain cases, a Value Basket is restricted to new licenses only.

Substitution

In many cases, all of the details (for example, which product fits the best, how many licenses are needed) cannot be defined for a multi-year project roadmap during the planning stage. Therefore, substitution adds the flexibility to adjust the software licenses to the client's needs. It is usually limited to within one IBM software brand but in certain cases can be open.

These contract features were developed based on several years of experience with large accounts. Now, these features provide an excellent framework for clients to achieve business goals at optimum cost.

Why and how an IBM ELA is significant from a software deployment perspective

An IBM ELA is a multi-year contract, generally based on multiple projects, which provides a new dimension in complexity as:

- ▶ Project priorities can change during the contract period. Certain projects are lower priority and will not be undertaken during contract period. Other projects might not have the prerequisites ready in time, which can also have an impact on the project schedule.
- ▶ Projects scheduled to begin more than a year into the ELA usually do not have a detailed design. Therefore, there can be several changes in the predicted architecture.
- ▶ Technology changes during the contract period can impact the architecture.

All of these challenges can have an extensive impact on software deployment success and the business value from the contract, especially if these challenges are not managed properly. Detailed ELA content planning and software deployment management are crucial for success. Software deployment best practices and deployment tools, along with ELA contract options (as described in this book) can help to minimize risks.

Detailed ELA content planning can include:

- ▶ Goals and objectives
- ▶ Projects:
 - Project description
 - Project timeline (duration, start date, anticipated end date)
 - Project dependencies
- ▶ The technology and products needed to support planned projects and achieve business goals:
 - List of products and quantities, product selection description, and sizing estimates
 - List of functional components in the architecture for which the technology has not been selected

- The relationship between products, projects, and goals, and business justification
- ▶ Services needed for implementation and operation:
 - Product implementation plan
 - Support plan
 - Education plan for implementers and operations team
- ▶ Risk analyses

Risk and compliance

ELAs can involve a large quantity of software licenses to be deployed across the enterprise, worldwide. Focusing on accurately tracking deployed licenses is essential, especially for ELA. There is always a risk of over-deployment (for example, deploying software on too many servers or deploying software not in accordance with the terms and conditions in the contract). The first time this is discovered might be during an audit, leading to an exposure to risk.

Processor Value Unit sub-capacity licensing lets you take advantage of the IBM virtualization technologies. Sub-capacity licensing, in conjunction with the IBM License Metric Tool, keeps you prepared for compliance audits with the Processor Value Unit consumption reports generated by the License Metric Tool.

In most cases, over-deployment occurs because of insufficient administration in tracking deployment. This is easily avoided by using the proper tools and procedures. See “License and asset management tools” on page 74 for ideas about license management tools.



B

Managing complex software deployment projects

What makes software deployment projects complex

Ideally every company, large or small, has standardized processes and products, stable budgets, well-trained staff, and project management (delivery) disciplines that help to realize the value of the software assets they invest in. Reality and experience tell us that this is not the case.

In this chapter, we examine a number of issues that most often make the delivery of software-intensive solutions more complex, and we provide suggestions on how to remediate these issues. The first and most important part of remediation is realizing that there are issues. With the issues acknowledged, they can be added to project planning documentation at the outset of the project and addressed during the course of the project.

It is important to recognize that more than one type of issue can interact in a given software deployment scenario. Several of these are:

- ▶ The global nature of the project
- ▶ Multiple vendors participating in the project
- ▶ Ad hoc changes to requirements (scope creep)
- ▶ Aggressive timelines
- ▶ Constrained human resources
- ▶ Lack of skills
- ▶ Lack of budget
- ▶ Organizational issues
- ▶ Use of leading edge technologies

Global projects

Software deployment projects that span geographies in a globally dispersed organization can be faced with challenges from:

- ▶ Multiple native languages that require interpretation and translation skills
- ▶ Multiple time zones that can make it difficult to schedule project checkpoint calls and meetings
- ▶ Diverse cultures and work habits including different weekend and holiday schedules for needed project task owners who have deliverables due

Multivendor projects

Companies might ask several vendors of IT products and services to work together on delivering a business solution to the stakeholders. Each vendor can easily provide subject matter expertise in their own offerings, but might not have

the integrative skills and experience to bring the solution delivery team together and provide a single point-of-contact to the stakeholders and Executive Business Sponsor.

Changing requirements

The more important a project is to sponsors and stakeholders, the more likely there is to be “scope creep”, for example, unscheduled changes in functional and operational scope of the solution beyond the originally agreed-upon deliverables. The project team might have severe difficulties accommodating ad hoc requests, even though outside observers find the requests completely appropriate. An example is changing the type of phone needed for mobile services to be delivered or factoring in a new technological advance to a Smarter Planet solution that can result in reduced project costs. For more information about the IBM vision of the Smarter Planet, visit:

http://www.ibm.com/smarterplanet/us/en/?ca=v_smarterplanet

There might not be a formal or informal-but-agreed-upon change management method to handle such project change requests.

Aggressive timelines

Well-architected, software-intensive solutions with clear value to stakeholders and sponsors will inevitably have aggressive delivery timelines. That is not to say that these are the only kinds of aggressive software deployment projects. There can be important upgrades and migration and maintenance projects with aggressive timelines as well.

The stress of aggressive schedules can have a disruptive impact on project deliverables. Also, there can be a strong dependency on task A being completed before task B can begin (in waterfall development, for example), which exacerbates the impact.

Constrained human resources

In an ideal world, the project sponsors and stakeholders determine the necessary funding to successfully deploy the project. In the real world, sponsors and stakeholders can change between the conceptual design acceptance phase and the delivery phase, and this can impact funding and available personnel. Skills that were acquired during the conceptual phases might not be available just when they are needed in the delivery phase, perhaps due to a reorganization.

It might be difficult or impossible to reuse skills if there are no project guidelines for reuse and there is no accountability for documenting important results and lessons learned.

Lack of skills

In this section we discuss lack of skills in specific areas and how it can impact a project.

Product knowledge

There can be a dependence on the vendor or vendors to supply the skills and human resources to deliver the project. But solutions that depend on middleware require skills transfer to the client to support ongoing standard operating procedures for the products in the solution. If the skills transfer to the client does not occur during the implementation phase, the viability of the solution can be jeopardized.

Architecture

Enterprise IT architects, business sector architects, and domain-specific architects might or might not exist within the client's organization. Ideally, they exist and are consulted during the conceptual solution design phase and applied the right requirements to the right set of solution deliverables. Often, however, architects are consulted first during the implementation phase or are not consulted at all, which leads to less well-thought-out solutions that might not satisfy the stakeholders, sponsors, and users.

Industry skills

Software solution designers must understand the industry context of the solution they are designing to select the right technologies for the solution. Software solution designers also must understand the industry context of the solution they are designing, so that the most important workloads are handled correctly, perform reliably and securely, and with acceptable performance. If these skills are lacking, the more non-specific the solution is, the less likely it will satisfy all of the key stakeholders. The right technologies and benchmarks are best defined by industry subject matter experts (SMEs) who have experience in real world workloads and industry trends with regard to those workloads.

Lack of budget

Companies in developed market economies have just experienced a severe economic recession that is just ending after three years of downward pressure on capital and operational expenditures. Companies in emerging market economies

have weathered the recession better, although they might have other economic issues that the project budget is inadequate to resolve, such as a lack of needed infrastructure or skilled personnel. In general, both types of companies must prepare to do more with less.

Organizational issues

This section discusses additional organizational issues, beyond those identified thus far, that can impact the success of software deployment projects.

Process issues

Several specific process issues that make deployment projects more complex are procurement processes for needed IT resources, such as servers, networks, storage, firewall ports, new cryptography, and identity management and directory services. There are also IT service management processes for fault, problem, change, configuration, disaster recovery, asset management, usage and accounting management that might be inadequate to deliver the solution on time and within budget.

Business mergers and divestitures

Certain large, global companies (IBM included) have a long history of acquisitions that continue to the present day. Others (also including IBM) experience business divestitures and spin-offs. Smaller companies can be acquired and taken over by new management. When such events occur within the time frame of a sponsored software deployment project, they can have a significant impact on project milestones for key deliverables. The project might even come to a full stop.

Approaches to solving issues

There are key principles that, when practiced during complex software deployment project delivery, can help:

- ▶ Enterprise view
- ▶ Reusability
- ▶ Collaboration and communication
- ▶ Efficiency
- ▶ Agility

These principles can be rewarded when they are adopted. This is one of the key expectations of project managers. Adoption of these principles at the outset improves morale and teamwork and leads to successful outcomes.

Collaboration tools and techniques

In a global, multilingual, multicultural project team, it is important to offer collaboration on demand. Anyone on the team must be able to request a call, chat, virtual meeting, or webcast with appropriate SMEs and have effective, two-way communications with them. There are tools available to help project team members to accomplish the tasks at hand.

IBM LotusLive

LotusLive™ is a set of public cloud software services that provide capabilities to define communities, wikis, blogs, activities, and user profiles, host web conferences and webcasts, send email, have chat sessions in real time, and connect using mobile devices. Because it is a Software as a Service (SaaS) offering from IBM, it supports the flexible, pay-as-you-go user pricing model for consumers of these services.

Collaborative development

When the success of the software deployment project depends on updated code, the project team must be able to share and reuse the source code, artifacts, test results, and documentation. Agile development methods within a global team demand event-based automation to progress the iterative development life cycle. IBM tools, such as Rational Team Concert™ and Rational Asset Manager and a service such as IBM Agile Development services, can be used towards these collaborative development techniques.

Project management

Project stakeholders demand a single point-of-contact to communicate project status. In a complex software deployment project, the process to determine the single point-of-contact is, by itself, a challenge. There is a natural selection process during the life cycle of the project. Generally speaking, stakeholders determine who the true project lead is and select that person as the single point-of-contact. This often happens both on the client side and the solution provider side of a project, so there can be two single points-of-contact who work closely together to communicate status.

Client project lead role

This individual knows the interests of the stakeholders and communicates often with the solution provider team to ensure that all tasks and deliverables are on track and that any issues or outages are reported and addressed.

Enterprise architecture

Enterprise architecture is the discipline of designing and determining the layers of enterprise IT services that support the business goals of the client. Clients with multiple data centers and multiple lines of business typically also have an enterprise architecture practice and one or more enterprise architects (EA).

The role of the enterprise architect

The EA role is to anticipate and address gaps in the enterprise IT architecture by defining technology standards that allow the client to close those gaps when acquiring new technology and managing existing technology investments. The client must assign an EA to oversee and support complex software deployment projects. Also, the client project lead and the solution delivery team can contact the EA when a need exists for enterprise technology services to support the project team, such as collaboration or information management services.

Change management

Software deployment projects can involve infrastructure and operational IT service management solutions and application development. The needs of developers during the software development life cycle might not automatically align with the needs of system administrators and those responsible for achieving the service level agreements (SLAs) for a given solution. Agreeing upon a change management discipline prior to the onset of the project is crucial to success.

Formal change management discipline

The client project lead and the solution delivery team lead need to agree on the change management tools and procedures for requesting, accepting, and rejecting changes to the project timing, deliverables, and budget.

IBM resources

IBM has many kinds of professional resources available to clients to help realize the value of IBM software solutions.

Client Technical Professionals

This IBM personnel include Client Technical Advisors, Software Client Architects, Software Brand IT Specialists, and Hardware Brand Field Technical Sales Specialists. All of these client technical professionals can be involved to help resolve issues that prevent successful software deployment.

IBM Software Group Lab Services

IBM Software Group Lab Services are available on a contracted fee basis to provide deep product configuration and implementation skills. There are IBM Software Group Lab Services available for each IBM Software Group brand. Solutions that are cross-brand in nature can involve more than one statement of work (SoW) or contract. See Appendix C, “Services offerings” on page 203.

For more information about IBM Software Group Lab Services, visit:

<http://www-03.ibm.com/systems/services/labservices/>

IBM Software Group Subscription and Support

IBM Passport Advantage Subscription and Support (S&S) is paid for on an annual basis and provides for release upgrades, severity 1, 24/7 problem support, product enhancement requests, and the ability to obtain history of past incidents with products in the account, among other benefits. IBM Software Group S&S, when renewed on an annual basis, provides for uninterrupted coverage of the IBM products that are necessary to the success of a solution. See Appendix C, “Services offerings” on page 203.

For more information about IBM Software Group S&S, visit:

<https://www-01.ibm.com/software/info/business/renewal/video/index.jsp>

IBM Accelerated Value Program

Certain IBM products that are part of a complex software deployment project can benefit from the additional coverage provided by the IBM Accelerated Value Program, formerly known as IBM Premium Support. The key additional benefit of the IBM Accelerated Value Program over IBM Software Group S&S is the ability for the client to work with an IBM single point of contact who acquires familiarity with the account’s organization and requirements and can help the client navigate and resolve complex product issues. See Appendix C, “Services offerings” on page 203.

For more information about the IBM this program, visit:

<http://www-01.ibm.com/software/support/acceleratedvalue/>

IBM Global Technology Services

IBM Global Technology Services are available on a contract basis to provide planning, assessment, risk management, and implementation skills, which can be delivered across multiple vendors who need to participate in a complex software deployment project. IBM Global Technology Services has multiple brands, including cloud computing, strategic outsourcing, data center, and other

infrastructure consulting services. See Appendix C, “Services offerings” on page 203.

For more information about IBM Global Technology Services, visit:

<http://www-935.ibm.com/services/us/en/it-services/gts-it-service-home-page-1.html>

IBM Global Business Services

IBM Global Business Services includes business consultancy and systems integration services that can remediate gaps in industry skills associated with the adoption of new technologies in the solution design. See Appendix C, “Services offerings” on page 203.

For more information about IBM Global Business Services, visit:

<http://www-935.ibm.com/services/us/gbs/bao/>

Private development and test clouds

When the time needed to procure development and test (*dev/test*) environments is scarce, the enterprise architects and operations teams might consider a private dev/test cloud computing solution. The private dev/test cloud deploys a server or desktop stack of standard middleware products to the server with a well-defined life cycle for those virtual resources. A self-service portal interface is provided for users and administrators. Service reporting and analytics are available to management to show service consumption of energy and other resources in the private cloud. IBM has multiple products and services to help clients create and realize the value of dev/test clouds.

Public development and test clouds

Public cloud service providers can provide dev/test environments for the needs of shorter term software deployment projects that are not considered enterprise scale workloads and that require the management of proprietary information. When the software deployment project needs to create proprietary data with retention requirements, a private cloud or traditional IT infrastructure with firewalls is usually a better solution than a public cloud.

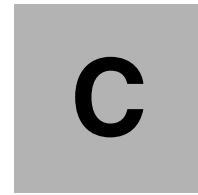
Hybrid clouds

Hybrid clouds combine public cloud services with private cloud or non-cloud services. Some form of integration is necessary in a hybrid cloud

implementation. The IBM Software Group WebSphere Cast Iron appliance is an example of the kind of integration capability that is required by hybrid clouds.

Cloud assessment services

IBM has many services offerings that enable clients to assess the suitability of particular workloads to run in a public or private cloud. IBM client technical professionals, such as account client technical advisors, architects, and brand specialists, are available to help you to navigate these offerings and recommend the right ones to help execute successful software solutions.



Services offerings

About this appendix

In this Appendix, we provide a reference list of IBM services organizations and a few of the relevant offerings provided to accelerate value from your software deployment projects.

IBM Software Services

IBM Software Services, also known as IBM Software Group Lab Services, is a team of highly skilled consultants with broad architectural knowledge, deep technical skills, and best practice expertise. Engaging this team grants you access to some of the deepest product, consulting, and training skills in the world. Software Services has close relationships with our development labs, ensuring that you have access to the latest technologies over the life of your project. The Software Services experts focus exclusively on providing technical services, training for IBM solutions, and integrating other supported platforms to help you use your solution as quickly and as fully as possible. With an IBM technical expert by your side, you can minimize your risk, maximize your investment, and meet your business goals.

Whether you are already using software from IBM or are considering the advantages of an IBM solution, IBM Software Services can help you to meet your business goals and use the full range of software from IBM, including Tivoli, DB2, Lotus, Rational, and WebSphere. Depending on your needs, the following lab-based groups can provide deep technical guidance:

- ▶ IBM Software Services for WebSphere
- ▶ IBM Software Services for Lotus
- ▶ IBM Software Services for Rational
- ▶ IBM Software Services for Tivoli
- ▶ IBM Information Management Services

There are other benefits to using IBM Software Services, including the ability to:

- ▶ Minimize implementation risks by having direct access to IBM Software Group expertise and development labs
- ▶ Accelerate your product deployment using their deep technical knowledge
- ▶ Provide mentoring, best practices, and skills transfer
- ▶ Provide implementation, migration, architectural design services, and customized workshops and education

- Take advantage of engagements that focus on newly introduced IBM brand technologies that are generally in a .0 release (for example, WebSphere Process Server v7.0)
- Utilize engagements that focus on guiding your efforts to be successful

The ultimate measure of success of IBM Lab Services is that of ensuring your success in installing and configuring our software, all the way to applying it to your business needs and deploying it in your environment.

Table 9-2 shows some of the standard offerings from IBM Software Services.

Table 9-2 IBM Software Services offerings

Offering	Description	Description of services	Expected outcome
Project Scoping Workshop	Careful project planning early in the project cycle with expertise from a Product Specialist provides greater assurance of successful project outcome.	A Specialist will help you define the project from a business and technical perspective, identify software requirements, identify skill and education prerequisites, identify best engagement approach, discuss staffing and funding issues, and assess proposed project dates.	Project proposal including high level requirements, high level education plan and an implementation roadmap with project delivery dates
Architecture and Design Workshop	The workshop focuses on the design and validation of your IBM Software solution. A Solution architect will assist in defining project requirements and designing the appropriate solution using IBM software technologies.	A Specialist will discuss network topology of the production solution, discuss overall software architecture, guide design activities for a small vertical slice of an application, discuss development best practices and performance best practices, and help develop a project plan and risk analysis.	Topology and architecture diagrams, outline of overall solution, project plan and risk analysis

Quick Start	Quick Start services at the beginning of the project provide the expertise to jump start the implementation and shorten the project life cycle. Services include installation, skills transfer, and development and deployment of an example solution.	A Services Specialist will provide a working installation in a staging environment, provide hands on skills transfer and mentoring designing, developing and deploying a sample solution identified for your project, apply best practices, and establish critical success factors.	Installation of product in a staging environment, lectures and interactive sessions, hands on development and deployment skills transfer
Performance Review and Tuning	This offering takes place during the implementation stage of your application to assess the performance of your application and identify areas for improvement to maximize overall performance.	A Services Specialist will help you establish hardware and software configuration, establish application level instrumentation, identify and measure performance tuning objectives, and measure and document iterative benchmarks.	Iterative performance benchmarks and benchmark plan, performance tuning recommendations, application level performance instrumentation, written report documenting review and recommendations
Diagnostic Assessments / Health Check	The health check consists of detailed and valuable audits to review the effectiveness and efficiency of the production environment and pinpoint areas for improvement	A Services Specialist will conduct an installation audit focusing on system architecture, application structures, infrastructure, systems integration, security and maintenance, an end user audit focusing on functionality and usability, and a sizing and performance audit focusing on service level requirements, transaction throughput, growth rates and overall performance.	Detailed report outlining the health of the environment, areas for improvement and recommended actions

Deployment Readiness Assessment	Prepare for a successful deployment by assessing the quality of systems and processes to verify that the site meets predefined requirements for number of hits per second, response time, capacity, and concurrent users.	A Services Specialist will assess your hardware and software configurations including databases, middleware and legacy systems, develop performance, scalability, durability and stability evaluation scripts and tests, and assess the procedures for change control, source control, problem tracking and crisis resilience.	Assessment findings report including recommended actions and deployment schedule
Application Review	This offering determines whether the application is fit for its intended purpose, addresses application scalability and compliance to standards, and provides best practices mentoring.	A Services Specialist will evaluate deviations from product standards, evaluate tool usage patterns, address scalability concerns and provide mentoring best practices. The offering is customizable and can include Architecture Review, Development and Deployment Tooling Practices Review, and a Scalability and Performance Review.	Report which will identify and address tactical and strategic issues, outline a set of immediate remedies, and identify architectural issues requiring further investigation
Migration Assessment and Implementation	A Specialist helps you quickly get the software version migration project on the right track by developing a migration roadmap.	A Services Specialist will conduct a migration workshop to define the migration project, identify software requirements, identify skill and education prerequisites, and review and identify impact to application code, development environment, build processes, staging and production environments, deployment processes, configuration processes, and testing requirements. As a follow on ISSx can perform migration code reviews, infrastructure migration, application deployment and performance tuning.	Overall SOA governance, ongoing mentoring and guidance, asset adoption workshops, technology pilots, ongoing infrastructure assistance
Education and Training	Assist the client with IBM Software Group product-specific training.	The consultant would meet with the client to identify what training gaps existed, and then work with the client to identify a combination of classroom style instructor-lead training along with online computer-based training.	Trained client resources, training collateral

Center of Excellence	The Center of Excellence combines the expertise and assets from multiple IBM organizations. It helps clients who have made an enterprise-wide commitment to architectural change speed adoption of change, mitigate risk, and align transformation with industry best practices.	A Center of Excellence provides assistance in the following key areas: SOA Governance, Virtualized Infrastructure, SOA Design and Development, Security, and Operations with Service Management. The Center of Excellence team of IBM Software Group experts, Global Business Services Enterprise Architecture experts, and Integrated Technology Services infrastructure experts brings best of breed to supplement client resources.	Overall governance, ongoing mentoring and guidance, asset adoption workshops, technology pilots, ongoing infrastructure assistance
Quick win Pilots	Deliver a tangible solution to the business in 10 weeks or less. An early win will accelerate adoption of the software you purchased.	A Quick Win pilot helps you in deploying a solution into a limited production. For a successful Quick Win Pilot, IBM experts will team with your subject matter experts (SMEs), business users, IT representatives (architects and developers), project managers and project owners.	End-to-end execution of the pilot solution
Business Value Accelerators	Demonstrate potential impact to the bottom line based on customer specific scenarios and input	For companies that are in industries that are asset intensive, such as telecom, manufacturing, high-tech etc, and asset management costs comprise a significant portion of their cost structure and are looking at better return on assets and reduced costs The Business Value Assessment draws from both IBM software and IBM services expertise and knowledge, to give the client both a technical and a process view. The output provides a clear picture of the potential benefits and returns of implementing an Asset Management solution, as they apply to the client business.	
Rapid Deployment Services	Provides Automated middleware deployment capability based on IBM best Practices		

Global Business Services

Global Business Services is the consulting arm of IBM that delivers integrated e-business solutions that customers need to compete in a globally integrated enterprise. Global Business Services is the world's largest group of IT consultancy services.

Global Business Services has expertise across many industries, helping companies to capitalize on new business models, re-engineer core processes, implement packaged solutions, and create management systems to help you manage top projects. IBM Global Business Services can help you to use the latest capabilities to optimize business performance and deliver higher value. All of the IBM Global Business Services business lines provide access to a full range of technical and business solutions.

The Global Business Services strategy is based on:

- ▶ Deeper client relationships: Global Business Services is deeply focused on a set of core clients who represent the bulk of our revenue and profit. We use insights from these accounts to drive our solutions capabilities into other opportunities
- ▶ Differentiated services: Business solutions, application management services, and SOA, which underpins it all, are what differentiate IBM
- ▶ Global delivery: Strategies are delivered globally by means of our Centers of Excellence

Global Business Services has several offerings that span across numerous industry sectors and service areas, such as:

- ▶ Application innovation services
- ▶ Application management services
- ▶ Enterprise application services
- ▶ Business analytics and management services
- ▶ Strategy and transformation services
- ▶ Financial management services
- ▶ Supply chain management services
- ▶ Human capital management services

For more information, contact your IBM representative or visit:

<http://www.ibm.com/gbs>

Global Technology Services

Global Technology Services helps clients reduce costs, improve productivity, and assert their competitive advantage with a comprehensive portfolio of assessment, outsourcing, infrastructure, and systems integration services. The main components of Global Technology Services are:

- ▶ **Managed Business Services**

Managed Business Services combines the IBM deep industry and process expertise with innovative technologies with a talented labor force to identify and address high-pain, high-cost, back-office processes in four key solutions areas (CRM, F&A, HR and SCM) and key verticals, such as the lending industry. Managed Business Services offers clients and vendors repeatable, multi-tenant processes and assets that deliver predictable results, improved process productivity, cost savings, and reduced risk, thereby allowing you to focus your resources on strategic business areas.

- ▶ **Strategic Outsourcing**

Serving as the IT backbone, the Strategic Outsourcing business line offers data center, network, desktop outsourcing, and management services for output devices. Strategic Outsourcing deals are typically complex, highly customized solutions, focused on transforming the client's IT environment. Strategic Outsourcing contracts range in size from multi-year, multi-million US dollar deals, to smaller agreements of a more limited scope. Regardless of size, outsourcing deals help clients to reduce costs and improve productivity through outsourcing their processes and operations, and they often involve some degree of consolidation and optimization of the client's IT environment. In some cases, a client's IT employees become IBMers. When IBM manages and operates parts of the IT area of another company, a mutually beneficial agreement provides service level assurances to ensure excellent service delivery.

- ▶ **Integrated Technology Services**

Each service product line in the Integrated Technology Services portfolio contains repeatable service products that draw from the skilled employees at IBM. These services complement hardware from the IBM Service and Technology Group and software from the IBM Software Group. These asset-based, standardized and global service products are as easy to buy, consume, and pay for as are our hardware and software products. They are deployed consistently and efficiently around the world, accelerating our clients' time-to-value. Integrated Technology Services partners closely with the IBM Systems and Technology Group and IBM Software Group to more easily and effectively give clients what they want: end-to-end solutions. Solutions are available for organizations of all sizes, in all industries, with a focus on delivery.

- Maintenance and Technical Support Services

Maintenance and Technical Support Services consists of a portfolio of support services from product maintenance through solution support to maintain and improve the availability of client IT infrastructure. These services help clients minimize the risk of downtime and avoid outages, identify the source of problems in a complex environment, and recover from issues quickly.

Systems and Technology Group Lab Services

IBM's Hardware division is known as the Systems and Technology Group, and it has its own services organisation focused on deployment and value from the hardware solutions and their integration to software. IBM Systems and Technology Group Lab Services helps infuse intelligence in the way the world's information technology works. We focus on driving down costs by designing flexible infrastructures, while, at the same time, managing risk through the use of deep technical skills and training expertise.

We help to optimize the use of your data center and system solutions. We are focused on new technologies that are emerging from IBM product development labs and the delivery and training of new and important niche, mature, and end-of-life market technologies.

IBM Systems and Technology Group Lab Services offer a range of services important in the successful implementation of any software on IBM platforms:

- Systems Software Services

Our staff is armed with a comprehensive knowledge of products and solutions that can help you to establish and benefit from smarter management and energy cost reductions, virtualization, security, and availability. Let us share our experience in integration and optimization of physical and virtual environments and technical consulting services to efficiently cut costs and complexity, manage risk, and deliver flexible new services models.

- Power Services

IBM POWER® processor-based Linux, IBM i and IBM AIX systems combine leadership performance, energy efficiency and flexible virtualization and availability features. These products and technologies are designed to reduce costs, improve service and reduce risk for mission critical applications and highly virtualized, consolidated operating environments.

The IBM Systems Lab Services and Training Power Services team is fully experienced in technology implementation in Power Systems™

environments. We provide proven consulting in installation, migration, porting, application architecture and development, performance tuning and hands-on skills transfer. This highly-trained arm of the IBM Power Systems development lab offers comprehensive knowledge of and experience with the products and solutions that can help you get more from your Power Systems investment.

► System x® / BladeCenter® Services

Our team helps clients worldwide with IBM System x technology deployment, on-site consulting and skills building. Local or global, we offer System x services in IBM System Management and our Integrated Solutions, IBM eX5 technologies and virtualization. Whether training staff at your site, getting you up to speed quickly with an Accelerator! Engagement, performance testing or design review, we have services to meet your needs. We're ready to share our high quality, field-tested offerings and resources and bring custom solutions to your enterprise.

► Mainframe Services

Develop and deploy server and storage solutions for IBM System z. Our mainframe services help clients worldwide realize security, availability and data serving solutions for Linux on System z, IBM z/VM® or IBM z/OS environments.

IBM Systems Lab Services and Training has the intellectual and technical advantage of the System z development lab, here to assist as you take advantage of emerging technologies on the System z platform. We can provide custom solutions, leading-edge consulting and support services and proof of concepts to meet your business requirements now and strategic initiatives moving forward.

► Storage Services

The Storage Services team is well-versed and experienced in all aspects of storage technology deployment in IBM System Storage® environments, as well as assessment of storage infrastructures in both IBM and non-IBM environments. We provide storage services in storage efficiency/best practices consulting, technical consulting, implementation and configuration, migration and replication, security, consolidation and deduplication. The team can assist in storage management and technical project management and offer hands-on product skills transfer.

Let us share our comprehensive knowledge of the products and solutions for System Storage disk, tape, network-attached storage, SAN, storage virtualization, in-line data deduplication and the IBM XIV® Storage System. With standard and customized services and leading-edge consulting and support, we can help you meet the needs of your business and your strategic initiatives.

► Data Center Services

Power, cooling or space issues don't have to limit your IT plans. Uncertain about how or where to begin to improve data center energy productivity or effectiveness? Data Center Services can help find ways to get your project started or re-energized. We are a highly trained extension of IBM's development laboratories with the most up-to-date knowledge of industry trends, IT technologies and best practices.

Optimize the benefits and energy savings of IT Virtualization and consolidation projects. Uncover energy wastes such as thermal hot spots or where over cooling occur. Plan IT hardware placement for optimal data center resource availability and utilization. Understand liquid cooling as a performance and energy saving feature. Distinguish DC power as an alternative power source for IT systems. Determine if you have contaminants or environmental conditions in your data center which can affect operations. Define and size IT load requirements if you're considering or designing a new or consolidated data center. Learn about, implement and monitor environmental and IT systems. We'll compare the energy efficiency and productivity of IBM versus other available products and how they can integrate with other systems in your data center. You'll come away with an understanding of IBM's approach for reducing carbon emissions and how workload-optimized systems can help extend the life of your data center.

► IT Optimization Consulting Services

The IT Optimization Consulting Services team is well-versed, experienced and ready to provide platform independent consulting for IT optimization and virtualization studies. Studies combine IT cost analysis and technical architecture using real client data and platform neutral recommendations to help reduce capital expenditures and ongoing operating costs. We will provide a business case comparison of your current system spending versus advanced technology future or the costs of running IBM Systems solutions.

Leverage technology to increase server infrastructure optimization and virtualization. Increase operating system image consolidation. Quantify the incremental costs of ownership to support platform recommendations. Position the client infrastructure to support strategic growth and accept new workloads. Improve client rate structure/IT charge-back methodology.

► Systems Agenda Consulting Services

Simply put, a Systems Agenda is a thoughtful plan which aligns the full power and potential of the latest IT technologies with your business objectives. A Systems Agenda is a unique and powerful guide, developed and executed in concert with your specific strategic initiatives that can help you get the most out of information technology.

The IBM Systems Agenda team can help clients establish a Systems Agenda of their own, different from any other, and realize their implementation goals. A key component is the Systems Agenda Engagement, in which our highly experienced consultants use a proven and specialized executive-level methodology. Your engagement begins with a client orientation and preparation followed by a customized on-site workshop of 1-to-2 days. The workshop is designed to help CIOs and the leadership team work together to develop a common point of view of business and IT strategies, issues and plans. Typical activities can include: identify and confirm strategic business initiatives/goals/objectives, explore the current and future state of IT and how it will support business strategies, identify challenges and gaps moving towards the desired IT state and develop the client's unique Systems Agenda. When your agenda is established, and if a genuine interest in a transformational partnership exists, the Systems Agenda Executive consultant will remain engaged in a mutually agreed to partnership role with the Executive sponsor, committed solely to the client's success as the agenda is refined, communicated, validated and implemented for the transformation time frame, at no charge. Our success is measured completely on the Executive sponsor's success and satisfaction with our involvement.

Business Partner services

In addition to all of the services provided directly from IBM, you can also take advantage of service offerings provided by our eco-system of Business Partners. Business Partners are recognized for their services delivery competencies. They incorporate these competencies into a business strategy that is constructed to grow revenue, expand services, increase market share, and provide complete customer solutions. These services providers have access to IBM intellectual capital, as well as comprehensive IBM technical support and services education.

This relationship enables our Business Partners to provide a wide range of software and services options to address your requirements. This relationship incorporates services that include capabilities, competencies, methodologies, and packaged offerings for targeted market segments. The result is increased customer confidence when clients turn to our Business Partners for needed business solutions.

The key elements of the services provider relationship include:

- ▶ **Approved services**

The business site controlled and operated by the Business Partner meets the IBM requirements for approved services.

► Services personnel

Individuals with skills and capabilities that might include:

- Applicable product, services, and support training
- Professional certification in chosen product areas (IBM and non-IBM)
- Demonstrated hands-on services knowledge and proficiency by passing knowledge- and performance-based professional exams
- Experiential knowledge verified by customer references and satisfaction

► Approved services

IBM approves the services providers for their capabilities, competencies, methodologies, and packaged offerings that can be delivered. These services can be IBM developed and branded services, IBM developed and non-branded services, or non-IBM developed services.

For more information about Business Partner services, visit the PartnerWorld® website at:

http://www-2000.ibm.com/partnerworld/pwhome.nsf/weblook/index_us.html

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Value Realization from Efficient Software Deployment

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Value Realization from Efficient Software Deployment

Value realization

Methods, tools, and assets

Best practices

Many companies have a complex process for purchasing software that is required by IT projects, or better, by the business. Usually software is purchased by a centralized procurement function, and is either purchased on a project-by-project basis or as a large periodic software contract.

Unfortunately purchasing software products does not automatically mean that these products are exploited throughout the organization providing the maximum possible value to the business units. Several issues call for a structured approach that gets the most business value out of software already purchased. The objectives of this approach are to:

- ▶ Create maximum awareness throughout the organization of the software purchased.
- ▶ Track software use in IT projects and act if products are not used at all, used improperly, or insufficiently used.
- ▶ Facilitate use of software products in projects, especially when software products are complex and require a lot of integration.

We can summarize the overall objective of this approach as ensuring that the business units in an organization obtain the maximum possible value of software products purchased, which is also the scope of this IBM Redbooks publication.

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