

Mobilizing Employees with IBM Notes Traveler

IBM Redbooks Solution Guide

Support for mobile devices is becoming a more urgent requirement for many organizations. Studies show that ever increasing numbers of workers are using their smartphones and tablets on their workplace. This Bring Your Own Device (BYOD) trend is growing rapidly. Therefore, your workforce needs access to email and schedules from these devices when on the road, but how do they stay in sync? IBM® Notes® Traveler provides that synchronization capability. It brings the latest messages, schedules and contacts to a mobile device to help your employees stay up-to-date when they are on the go. IBM Notes Traveler provides everything you need to start mobilizing your workforce.

IBM Notes Traveler is a mobile application that provides two-way, over-the-air synchronization of email and contact data between IBM Domino® servers and select handheld or mobile devices. IBM Notes Traveler synchronizes email, calendar, and contact data between the server and the mobile device securely and in real time. It is convenient and easy to install for administrators and users. For IBM Domino customers, it is also a mobile option to build on the existing IBM Domino infrastructure and to extend the messaging and collaboration environment to mobile devices.

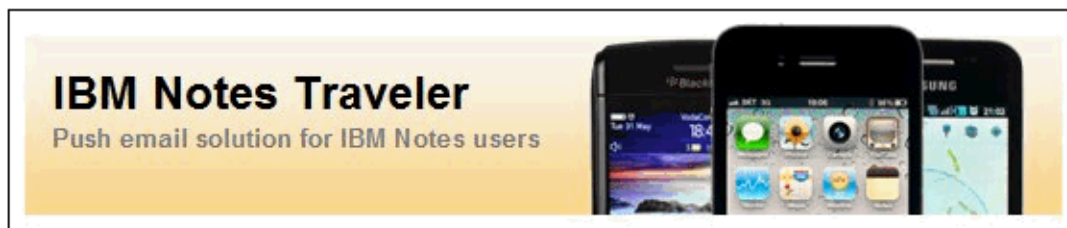


Figure 1. IBM Notes Traveler: A push email solution

Did you know?

IBM Notes Traveler software provides IBM Notes email, calendar, contacts, and to-do items on an Android, Apple iPhone, or Apple iPad device. Email, calendar, and contacts are also available on Microsoft Windows Mobile or Nokia Symbian devices. Best of all, IBM Notes Traveler software is a no-charge offering for IBM Notes and IBM Domino users. If you already use IBM Notes and IBM Domino in your organization, you can have IBM Notes Traveler software free of charge.

Business value

IBM Notes Traveler can extend your IBM Notes and IBM Domino infrastructure onto a range of mobile devices. IBM Notes Traveler has the following key features among others:

- Automated, two-way, over-the-air synchronization of Notes email, calendar, and contact data, facilitating a single, up-to-date mobile version of messaging and collaboration information
- Compatibility with Apple iOS, Google Android, Nokia Symbian, and Microsoft Windows Mobile devices
- Support for Notes users, both through on-premise Domino or Domino Express deployments, and in the IBM cloud with IBM SmartCloud Notes
- Security policies for mobile devices to control password length and strength specification, including options to deny access to unencrypted devices and to restrict access to certain device functions, such as camera usage
- The ability to remotely wipe lost or stolen devices, including a full wipe of the device or a partial wipe of just the IBM Traveler data
- End-to-end security

Data in transit is synchronized over a secure HTTPS/SSL connection. Data at rest (on the device) is encrypted on Apple iOS devices, Google Android devices, and Nokia Symbian devices.

For more information about extending collaboration to your mobile employees, go to the following address, and register for the analyst report that is available free of charge:

https://www14.software.ibm.com/webapp/iwm/web/signup.do?source=swg-Frost_Sullivan_whitepaper

Solution overview

IBM Notes Traveler runs on an IBM Domino server. You can install IBM Notes Traveler on any existing IBM Domino server, but for best performance and scalability, use a IBM Domino server that is dedicated to just serving IBM Notes Traveler users. Apple iOS device users do not need to install any additional client-side software and can use the basic iOS functions of their device to synchronize their IBM Notes data. Users with Android, Nokia Symbian, and Windows Mobile devices need to install a client-side application that they then use to synchronize their IBM Notes data.

After you install and configure Notes Traveler, the Notes Traveler server monitors the user's IBM Domino server and automatically pushes any new data (email, calendar, or contact items) to the user's device.

Figure 2 shows a high-level overview of the IBM Notes Traveler solution.

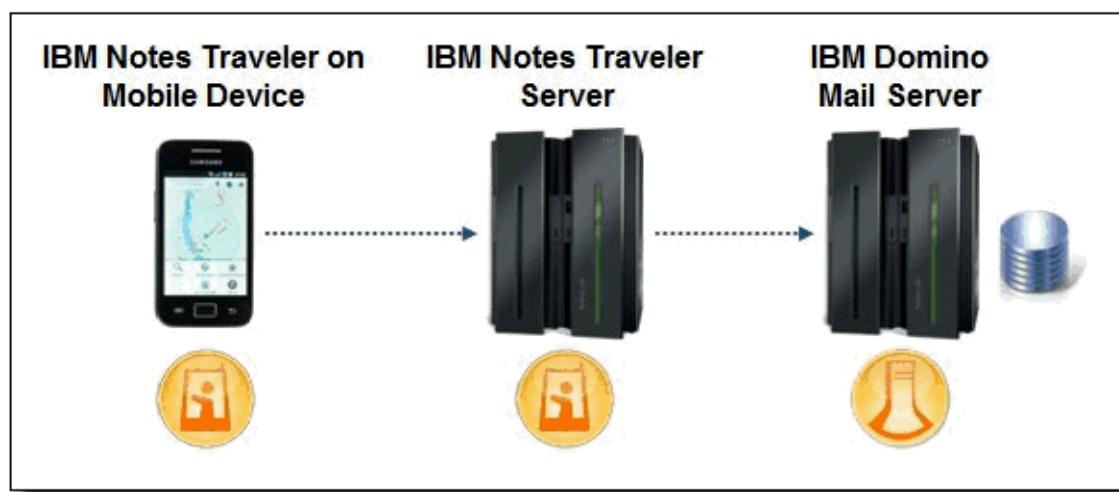


Figure 2. IBM Notes Traveler solution

Solution architecture

IBM Notes Traveler is installed on an IBM Domino server and runs as a separate add-in task. Having a dedicated IBM Notes Traveler infrastructure is preferable to ensure that IBM Notes Traveler has adequate system resources available.

Each mobile device has installed an IBM Notes Traveler client (Google Android, Symbian Nokia, and Windows Mobile) or profile (Apple iOS). The client communicates with the IBM Notes Traveler server over http or https.

Figure 3 shows the main components of a simple IBM Notes Traveler configuration and how they interact.

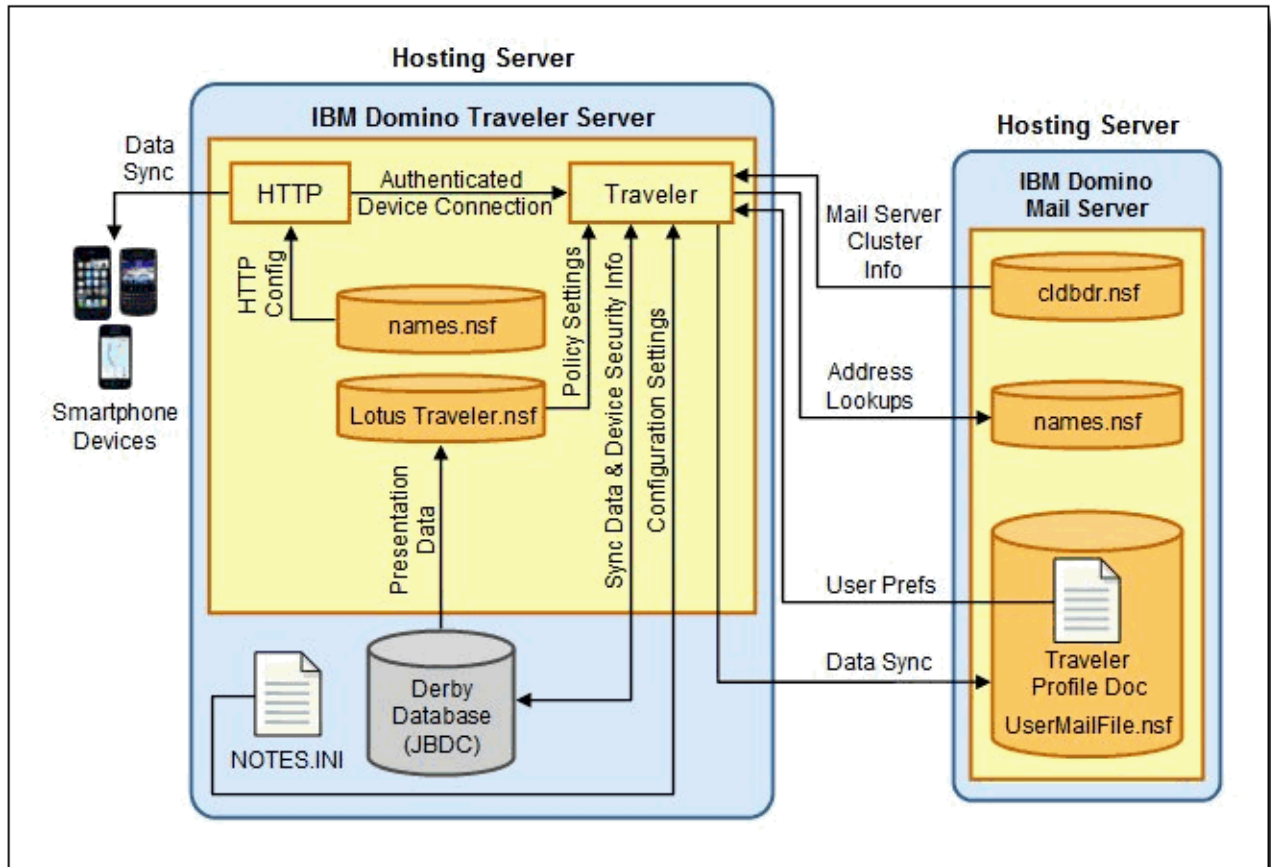


Figure 3. IBM Notes Traveler configuration

Notes Traveler is ideal in the following deployment scenarios. Each scenario has a different approach to provide the necessary connectivity between IBM Notes Traveler, the users, and their respective IBM Domino mail servers.

- Direct connection deployment

In a direct connection topology, the IBM Notes Traveler server is placed in a network DMZ so that IBM Notes Traveler can connect directly to the Internet by using the front firewall of the DMZ. The IBM Notes Traveler can access the IBM Domino mail server through the back firewall of the DMZ.

Figure 4 shows the topology of a direct connection solution.

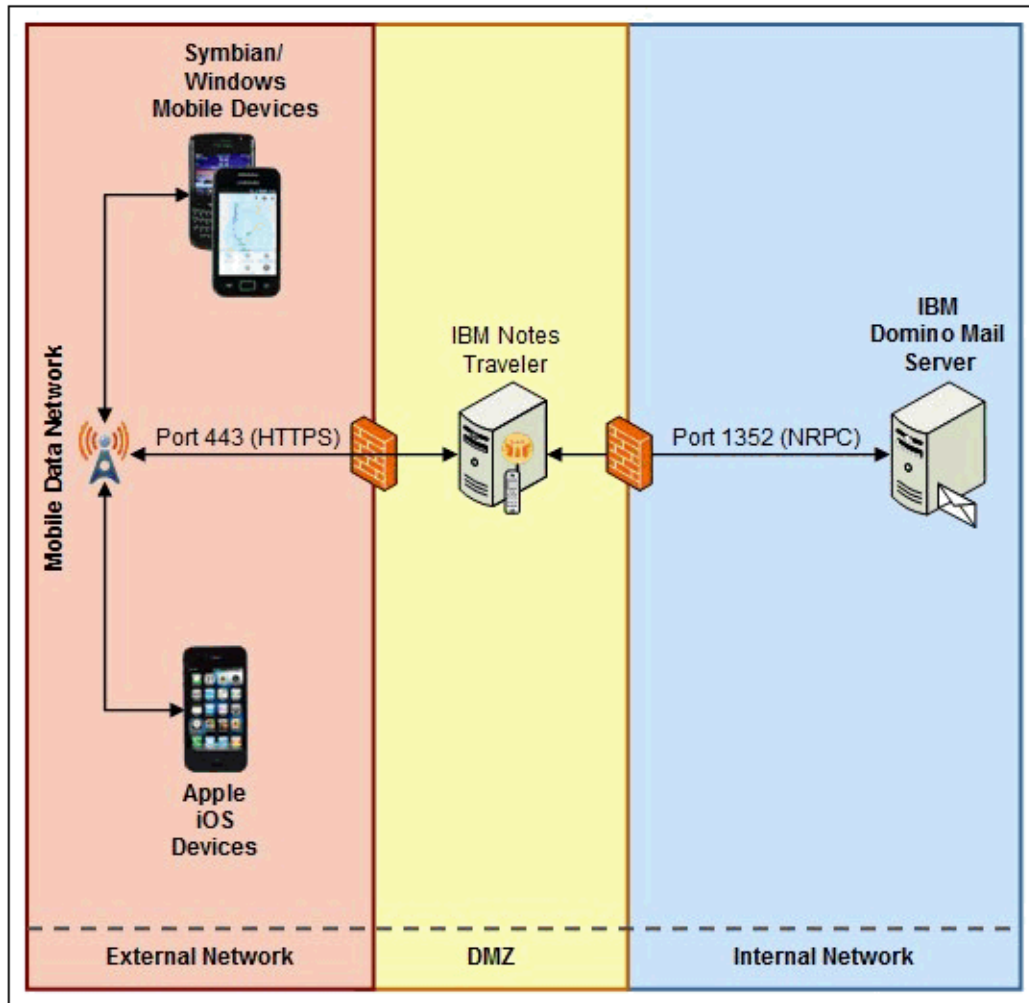


Figure 4. Direct connection deployment

- A reverse proxy deployment

In a reverse proxy-based solution, the IBM Notes Traveler server is placed in the internal network, and a reverse proxy server is placed in a network DMZ. The connectivity between the user device and the IBM Notes Traveler server is handled by a proxy server. The mobile device connects directly only to the proxy server, and then the proxy server provides the connectivity (not apparent) to the IBM Notes Traveler server.

Figure 5 shows the topology of a reverse proxy solution.

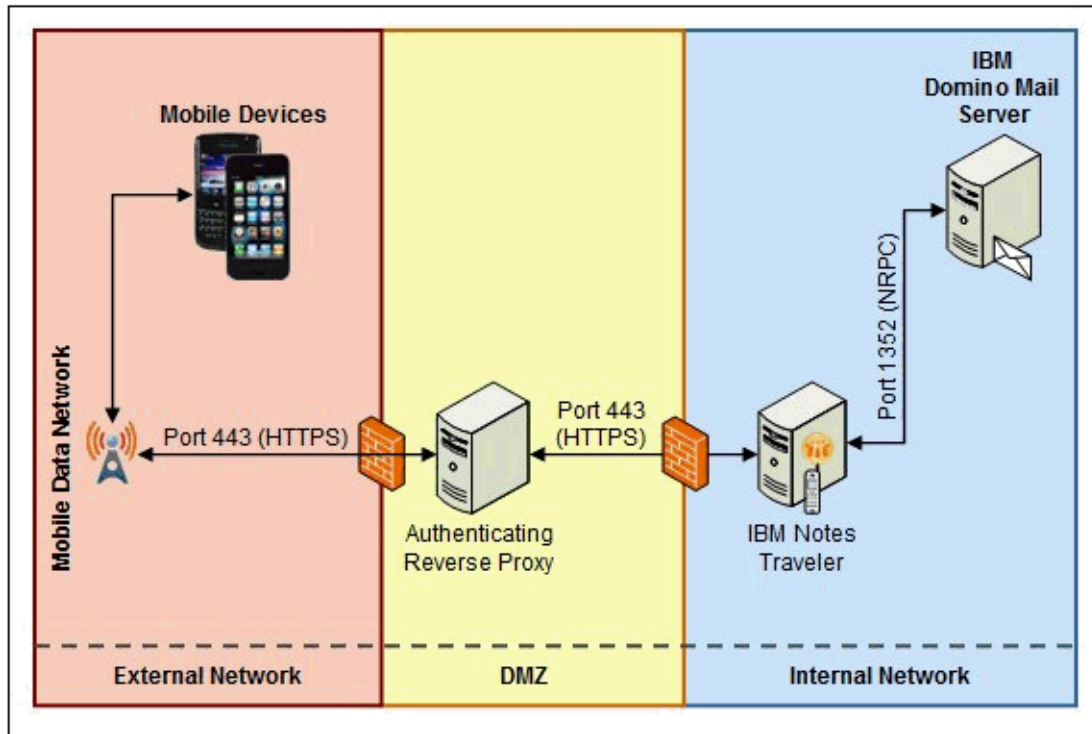


Figure 5. A reverse proxy deployment

- A virtual private network (VPN) deployment

In a VPN-based solution, a VPN connection (tunnel) is established between the user's mobile device and the internal network, through a VPN server that is in the network DMZ. When this VPN connection is established, the user's mobile device is effectively connected to the internal network and has direct connectivity to all of the servers on it. All of the network traffic between the mobile device and the internal network is sent through the VPN connection, which is also normally encrypted. All of the IBM Notes servers can be on the internal network. Also, when a VPN connection is established, the user's mobile devices can connect directly to them.

Figure 6 shows the topology of the VPN solution.

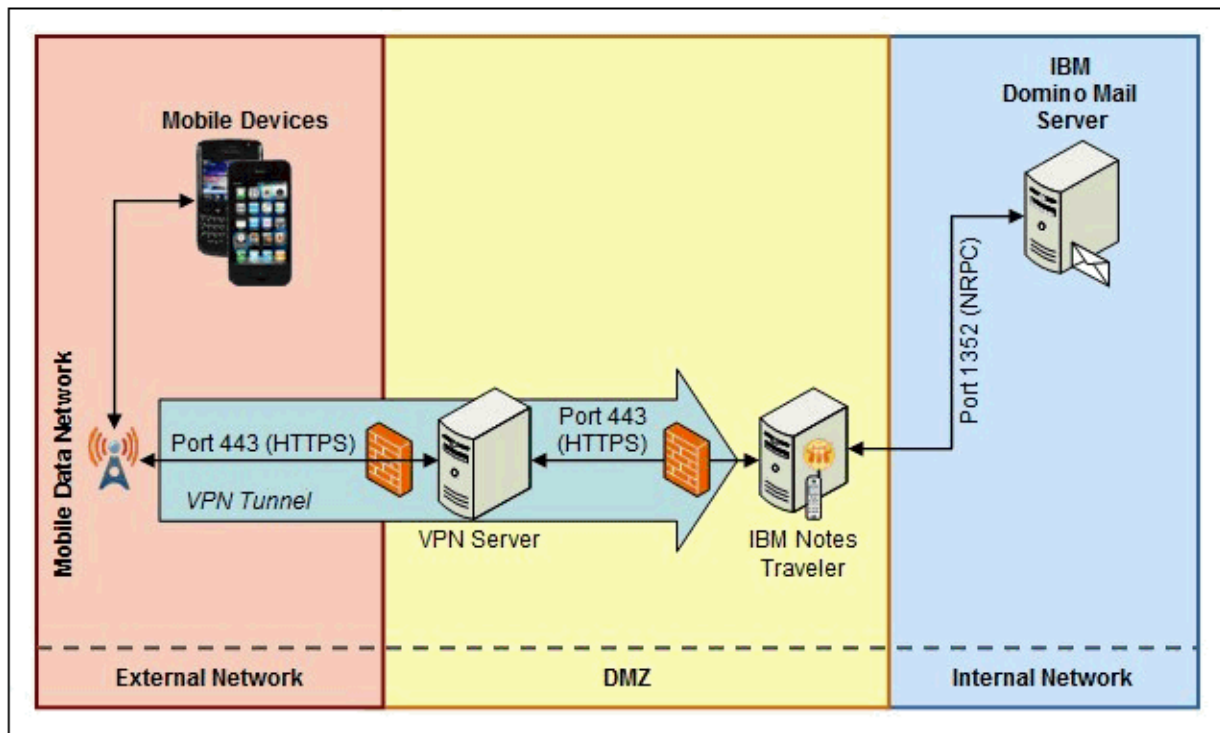


Figure 6. VPN deployment

All three deployment scenarios also have the option of implementing high availability for the IBM Notes Traveler server. This option is achieved by having multiple IBM Notes Traveler servers configured as a single high availability "pool". In this configuration, all servers within the pool can serve all of the users. Therefore, if a single IBM Notes Traveler suffers an outage, the other servers in the pool can take over, and the service is not impacted. Implementing a high availability solution requires introducing the following additional infrastructure requirements to the IBM Notes Traveler environment:

- An IP sprayer or load balancer to redirect the client connections between the multiple IBM Notes Traveler servers in the pool
- An enterprise data server, which can be IBM DB2® or Microsoft SQL, to host the configuration database that is used by all of the IBM Notes Traveler servers in the pool

Figure 7 shows a high availability configuration that is used with a simple direct connection deployment scenario.

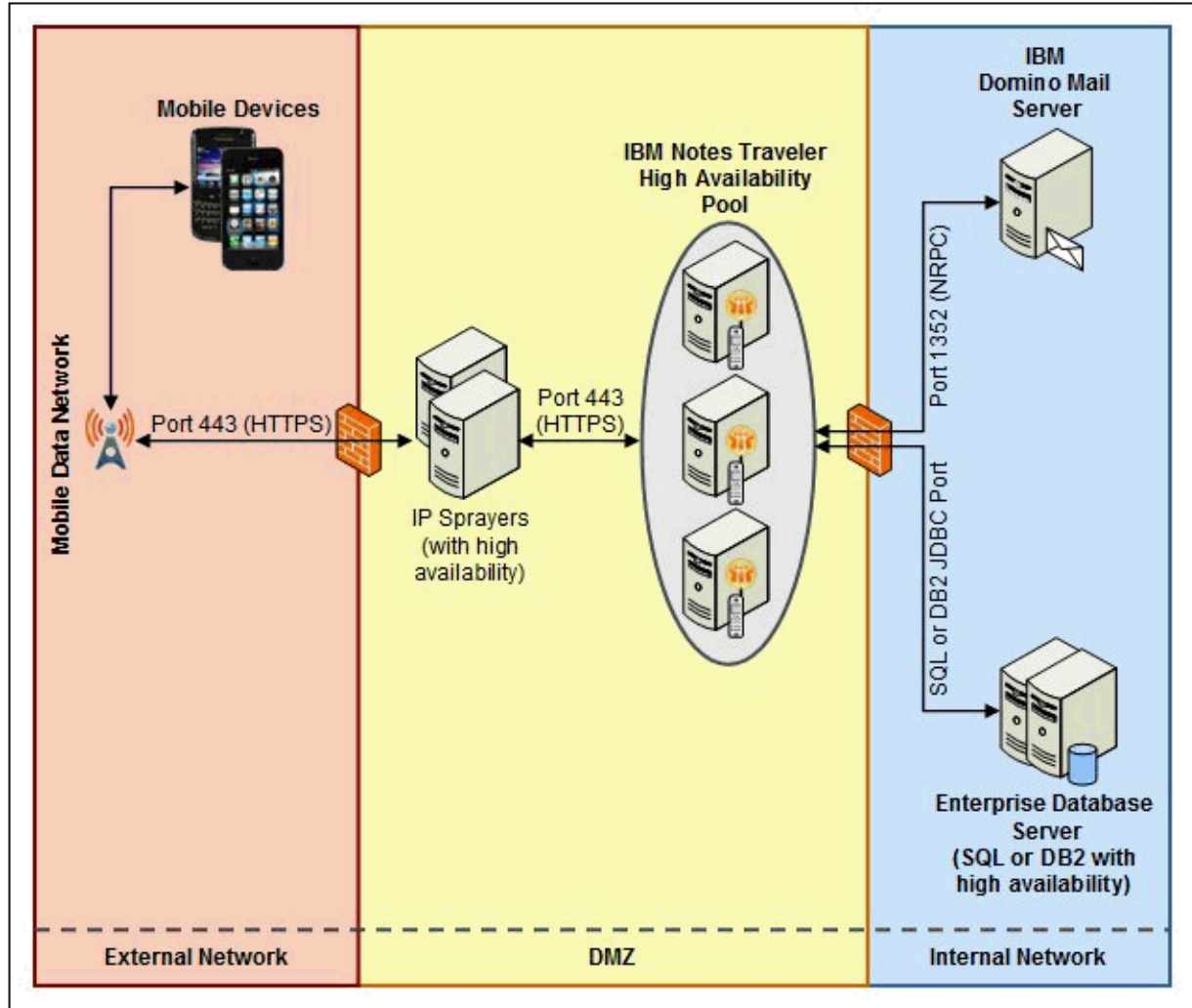


Figure 7. Direct connection deployment with high availability

Usage scenarios

IBM uses IBM Notes Traveler to provide a mobility solution for its employees globally. They use a mixture of both corporate issued devices and employee liable BYOD. IBM already used IBM Notes and Domino for traditional PC-based email. Therefore, extending it to mobile devices through IBM Notes Traveler was a logical progression.

In the Europe, Middle East, and Africa region alone, over 19,500 IBM employees are using IBM Notes Traveler, which is hosted on a total of 20 Linux based servers. IBM uses a reverse proxy-based deployment scenario because it provides a balance between maintaining the security of the enterprise, by not displaying IBM Notes Traveler directly on the Internet, and functions for the users.

Integration

Apart from its obvious integration with IBM Notes and Domino, IBM Notes Traveler also integrates with the following IBM products:

- IBM Mobile Connect

IBM Mobile Connect can be used with IBM Notes Traveler to provide a reverse proxy solution and, optionally, an IP sprayer function if you want to implement a high availability infrastructure. This option has the advantage of combining both roles into a single server function to help minimize the additional infrastructure that is required. IBM Mobile Connect can also be configured to use single sign-on authentication that works with IBM Notes Traveler to simplify the logon experience for users in a reverse proxy deployment scenario.

For more information about IBM Mobile Connect, see:
<http://www.ibm.com/software/lotus/products/mobileconnect>

- IBM Endpoint Manager for Mobile Devices

IBM Notes Traveler includes basic mobile device management (MDM) capabilities, but it can also be integrated with IBM Endpoint Manager for Mobile Devices, which provides a much broader range of MDM functions. When Notes Traveler and IBM Endpoint Manager for Mobile Devices are used together, you can use IBM Notes Traveler to provide the data synchronization functions. Then, you can use IBM Endpoint Manager for Mobile Devices to provide the mobile device security and management functions. You can even use IBM Endpoint Manager for Mobile Devices to automatically configure the user devices to work with your IBM Notes Traveler environment.

For more information about IBM Endpoint Manager for Mobile Devices, see:
<http://www.ibm.com/software/products/us/en/ibmendpmanaformobidevi>

Supported platforms

The IBM Notes Traveler server is supported on both Windows and Linux platforms. The IBM Notes Traveler client is supported on Apple iOS, Google Android, Nokia Symbian, and Windows Mobile devices. For more information about all of the supported platform versions for both server and client, see "Index of system requirements for Notes, Domino, Domino Administrator, Domino Designer & Notes Traveler" at: <http://www.ibm.com/support/docview.wss?uid=swg27007909>

Ordering information

For IBM Notes Traveler product information, see the IBM Offering Information page (to search on announcement letters, sales manuals, or both) at:
http://www.ibm.com/common/ssi/index.wss?request_locale=en

On this page, enter *IBM Notes Traveler*, select the information type, and then click **Search**. On the next page, narrow your search results by geography and language.

Also, visit the IBM Passport Advantage® website at:
<http://www.ibm.com/software/passportadvantage>

For ordering IBM Notes Traveler 8.5.3 Upgrade Pack 1, go to:
<http://ibm.co/VUcYAx>

Related information

For more information about IBM Notes Traveler, see the following documentation:

- *IBM Notes Traveler Tips and Techniques for a Successful Deployment*, TIPS0966
<http://www.redbooks.ibm.com/abstracts/tips0966.html>
- IBM Notes Traveler Product Page
<http://www.ibm.com/software/lotus/products/notes/traveler.html>
- IBM Notes Traveler Product Documentation
<http://bit.ly/VX3U8x>
- IBM Notes Traveler Deployment Cookbook
<http://bit.ly/12OF9T7>
- IBM Notes Traveler Wiki
<http://bit.ly/YtLjBo>
- IBM Mobile Enterprise Services
<http://www.ibm.com/services/us/en/it-services/mobile-enterprise-services.html>

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