



Best Practices for Globally Deploying Wireless Messaging





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2009

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This paper describes the key issues a multi-national enterprise needs to consider when determining the requirements for deploying a global wireless messaging project. The paper also describes how Good Mobile Messaging and Good Mobile Control, components of the Good for Enterprise™ solution, address those key issues, and finally, provides two case studies of recent Good Technology customer deployments.

Introduction

Multi-national enterprises must be prepared to reckon with a mobile workforce that will grow larger every year, driven by the requirements of global business and the increasing need to stay in close contact with customers and increase productivity while keeping an eye on the bottom line.

Smart companies are choosing the proactive approach. They are taking action today to develop an enterprise wireless information access strategy that maps out an enterprise plan for their immediate wireless needs while also accounting for future requirements.

Key Considerations for Global Deployment

The following are the most pertinent considerations and questions key decision-makers should address before embarking on a global deployment of any wireless messaging solution.

Scalability: How well is your company positioned for future growth and expansion, that is, have you anticipated an increase in the number of users and mailboxes, and consequently, servers? While many wireless implementations begin with relatively small deployments (often only executive officers and management), these deployments tend to grow quickly and IT managers must consider their ability to deploy, maintain, control and manage large fleets of hundreds or thousands of handhelds.

Selecting a solution without giving thought to its ability to scale for future growth inevitably assures a more difficult and expensive transition down the road, as your company is forced to install and manage a larger number of servers than originally anticipated.

User Distribution: Where are the majority of your employees located? Best practices dictate that the location that contains the highest concentration of users is where you should deploy the bulk of your network hardware. How are users distributed geographically in your company? In addition to accounting for growth and expansion, it's important to not forget your user base abroad—the solution you choose must be multi-lingual.

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Network Environment: How would you describe your Microsoft Exchange or Lotus Domino environment? Selecting a wireless solution that cannot be deployed to multiple versions of a messaging solution (for example, one division has Exchange 2003, while another division has Exchange 2007) or that does not support the latest version of a messaging solution (for example, upgrading to Lotus Domino 8 or Exchange 2010) will greatly impede your organization's ability to scale and manage for future growth.

Network Architecture and Topology: How would you characterize your network infrastructure and architecture? Is it centralized or dispersed? Where are your major data centers located? Have you correctly identified the primary network resources and components (e.g., connection speed, size of the network pipes, etc.) that comprise your current network topology? Do you currently have or do you plan to implement a failover and redundancy strategy? The solution you choose must be flexible enough to accommodate a centralized or de-centralized layout, and should have its own built-in failover and redundancy processes.

Business Processes: How does your organization administer the procurement of handheld devices? Is it individual-liable (that is, the employee chooses and charges in the cost to his/her department via an expense report) or corporate-liable (the company centrally procures handhelds and licenses and distributes to employees)? Does the process differ depending on the location? Is the group responsible for the deployment and provisioning of handhelds located in one place, or across geographic locations?

Another business process to consider is the device/carrier mix availability. Does your organization favor one handheld device and/or carrier over another? If so, is this choice affected by geographic location? Have you determined whether the device/carrier choice that works well in one geographic location works as well in a different location? Or does your organization allow users to select any device of his/her choice? If so, does the solution you choose support popular, new device platforms such as iPhone OS X, Palm webOS and Android? Have you determined how your IT organization will support a heterogenous device environment?

Choosing a solution that is flexible enough to accommodate your company's unique business processes will alleviate potential confusion and streamline the deployment process across the board.

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Management Tools: A basic requirement of effective handheld fleet management is that wireless systems be server-based and not require desktop installation of software. Desktop software is costly to deploy and manage, and is often out-of-date due to the challenges in managing large fleets of PCs.

Another key element of handheld fleet management is minimizing the number of times IT departments need to physically touch handhelds. This requires OTA (over-the-air) functionality for the following functions:

- Wireless provisioning and upgrade of all mobile applications on the handheld
- Wireless enforcement of IT policies
- Device-level troubleshooting and repair tools
- Group administration so that policies can be applied via OTA to groups of users as defined by IT managers

Finally, enterprises require tools to enable a 360-degree view of their wireless system for such metrics as in- and out-of-coverage time, server uptime, speed of information delivery and an inventory of all handhelds active on a given mobile OS. These metrics should be gathered into a central console for quick analysis and decision making. IT managers should also have Web-based mobile access to these tools.



The Good Global Solution

Good's wireless messaging solution, called Good Mobile Messaging, is uniquely poised to meet the challenges facing today's multi-national enterprises by providing the following key benefits and capabilities:

Truly global coverage: Good's Global Connect capability provides connectivity through any General Packet Radio Service (GPRS) / GSM (Global System for Mobile communication) or Code Division Multiple Access (CDMA) carrier, in any country, around the world for true international support. Global Connect supports multi-national companies and world travelers with wireless access to essential corporate data by assuring connectivity at minimal cost. Additionally, Good provides multi-lingual support in English, French, Italian, and German languages for most handhelds and platforms. As of 2007, Good users used Good Mobile Messaging on over 200 carrier networks in over 90 countries around the globe.

Adaptable to corporate policies and business processes: As described earlier, choosing the best carrier and device combination is often limited by a user's geographic location. Good Technology offers a consistent feature set on a variety of handhelds and platforms, giving you the flexibility to meet different geographic requirements and to offer your users a broad choice of devices that meet their needs. Good supports a variety of enterprise-class industry standard handhelds across the iPhone family of devices, Windows Mobile® Professional and Standard editions, Symbian™ S60, the Palm® Treo™ family, Palm webOS and Android*.

Robust fleet management tools: Good provides secure wireless OTA handheld management for all mobile software, policies, and settings. Good Mobile Control provides remote handheld software management and allows you to send upgrades, install 3rd party applications, as well as monitor installed applications, versions, and memory usage.

The web-accessible management console provides 24x7 real-time monitoring and allows you to:

- Monitor Good servers and users remotely
- Proactively diagnose potential issues before they become problems
- Quickly identify source of any problems (carrier, device, server, etc.)
- Manage enterprise servers & users, including current status, pending messages
- Monitor connection history
- Identify user account detail

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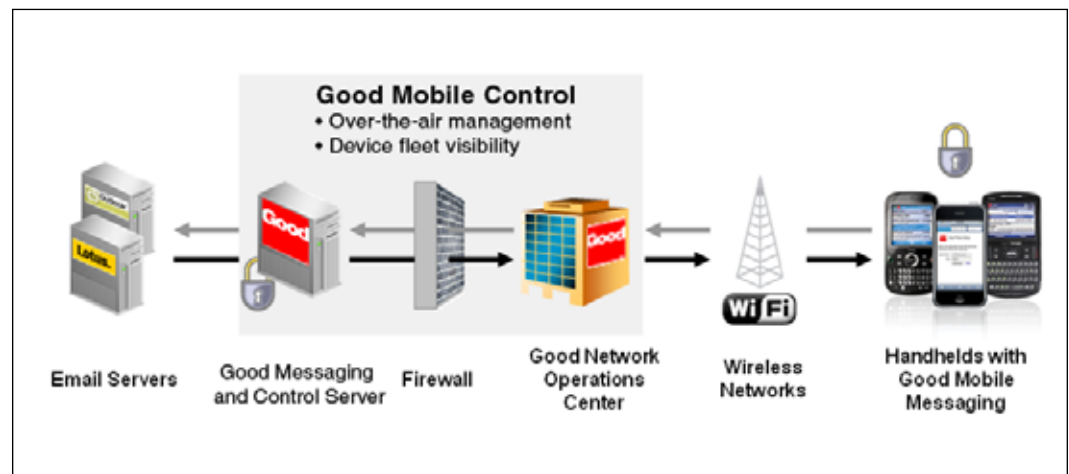
*Support for Palm webOS and Android are targeted for end of 2009.





HOW GOOD MOBILE MESSAGING IS MANAGED

The following diagram provides an overview of the Good Messaging System:

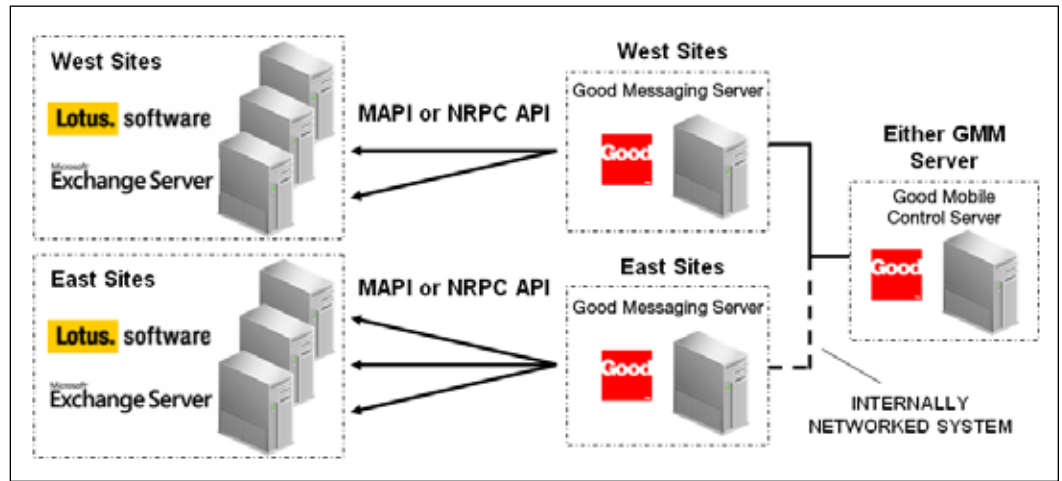


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- In an Exchange environment, there is one *GoodAdmin* mailbox per Exchange grouping. It holds statistical information and the user list for the Good Mobile Messaging installation. The *GoodAdmin* account allows for synchronization of data.
- In a Lotus Domino environment, the Good Messaging server uses a local instance of the Lotus Domino server to access users' mail accounts and synchronize data. The Good Messaging server also maintains an instance of SQL database to maintain statistical information and the user list for the Good Mobile Messaging installation.
- The Good Mobile Messaging server and Good Mobile Control server software resides on a stand-alone box and is installed behind the corporate firewall. Many-to-many Good Messaging server to Exchange or Lotus Domino is supported.
- Good Mobile Control registers installations of Good Messaging servers, and monitors the connection between the Network Operations Center, Good servers, and users.
- Good Mobile Control is web-based so it can be accessed from virtually anywhere that administrators have access to the Internet. One instance of Good Mobile Control can administer many Good Messaging servers.
- Good currently maintains two production datacenters, with one primary and another as standby, and many test networks (e.g. for Beta releases).



Alternatively, as shown below, you could deploy multiple Good Messaging servers so that there is a Good Messaging server for each major network region of your organization.



No special configuration is necessary to have multiple servers manage handhels on multiple Lotus Domino or Exchange servers.

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Good Technology Global Customer Deployments—Two Case Studies

These two case studies provide a high level overview of two global enterprise deployments. Each has a different type of network architecture: one enterprise uses a de-centralized layout, with each site responsible for maintaining its own administration and management; the second enterprise is a more centralized layout, where the administration and management is located in one major network center.

Even with different approaches, the best practices for a successful deployment remain the same:

- One to four servers
- Both Good Mobile Messaging and Good Mobile Control server installed
- Good Mobile Messaging servers located in enterprise messaging sites
- Multiple instances to support greater capacity
- Run more than one service account
- Locate the servers close to the Service Account mailbox
- Use a single Good Mobile Control server to service multiple messaging servers

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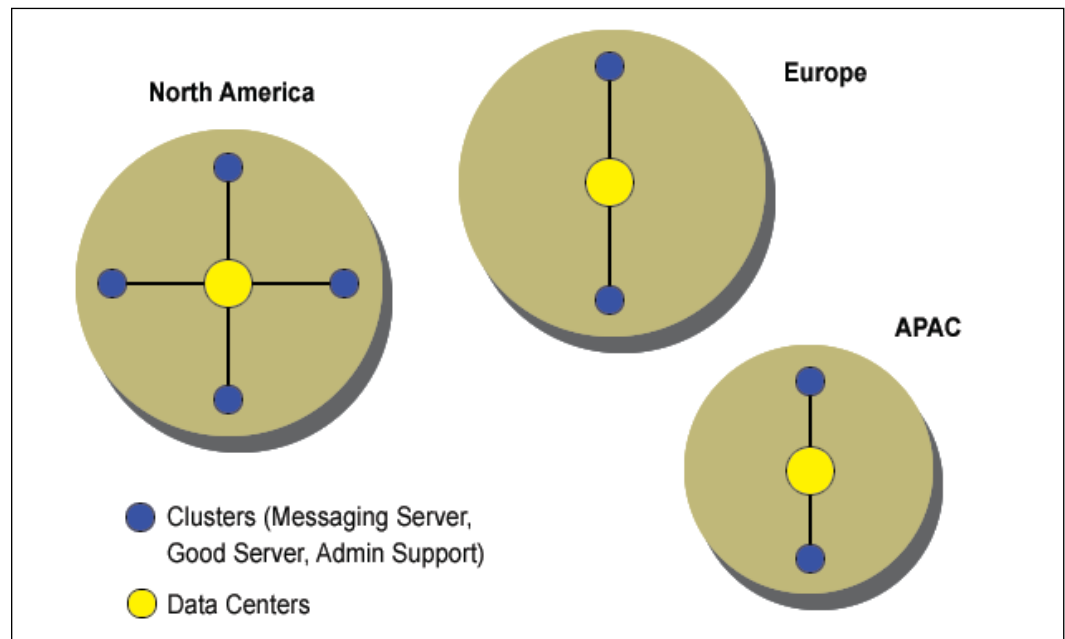


CASE STUDY #1

Company A is an example of a multi-national enterprise that is globally *de-centralized* but centralized regionally, with corporate headquarters located in the United States. They prefer that each geographic region be self-contained, that is, each regional data center is responsible for their own network administration and management.

Employees: Over 30K; Over 10,000 total Good users

Locations: R&D facilities in India, China, and Israel; US facilities located in the east, southeast, north, and west.

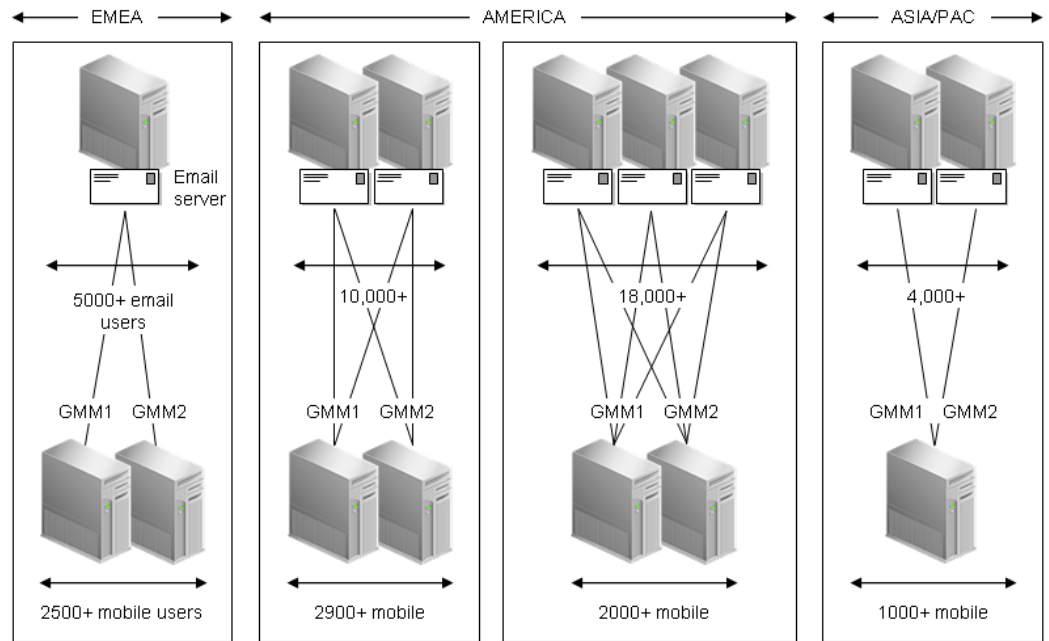




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With a single Data Center located in each of the company's major geographic regions, the following Good Mobile Messaging design was implemented:



In the above illustration, each Good Mobile Messaging cluster represents 1-4 Good Messaging servers; each cluster has a separate Service Account and Mailbox associated with it.

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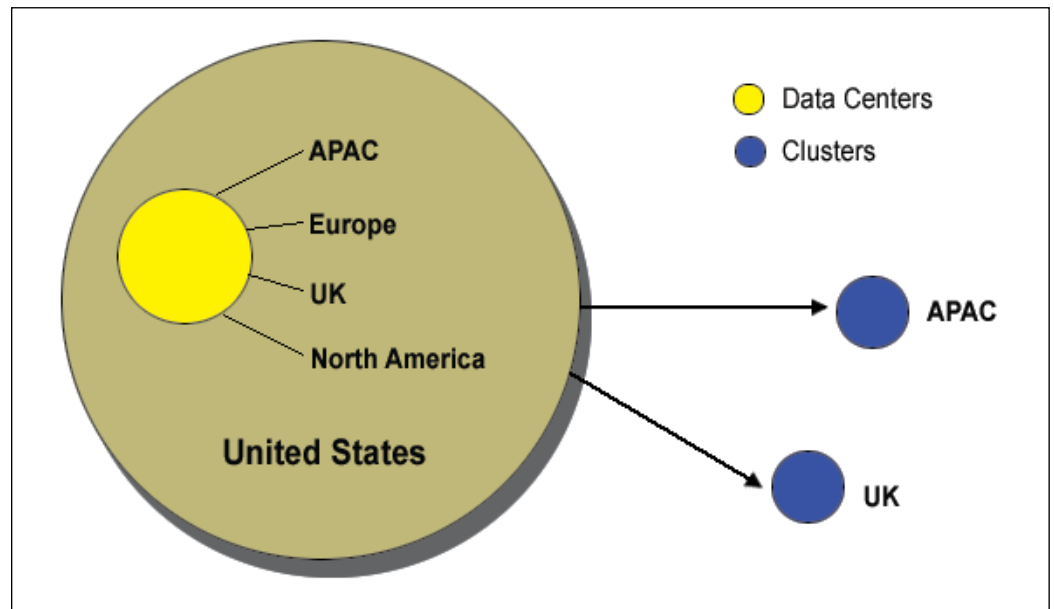


CASE STUDY #2

Company B is an example of a multi-national, globally *centralized* enterprise. They prefer to control their entire Good Mobile Messaging deployment from their main data center in California.

Employees: Approximately 100K; 3,000 Good users.

Locations: Single data center in the United States; sales offices and manufacturing facilities in approximately every country worldwide.

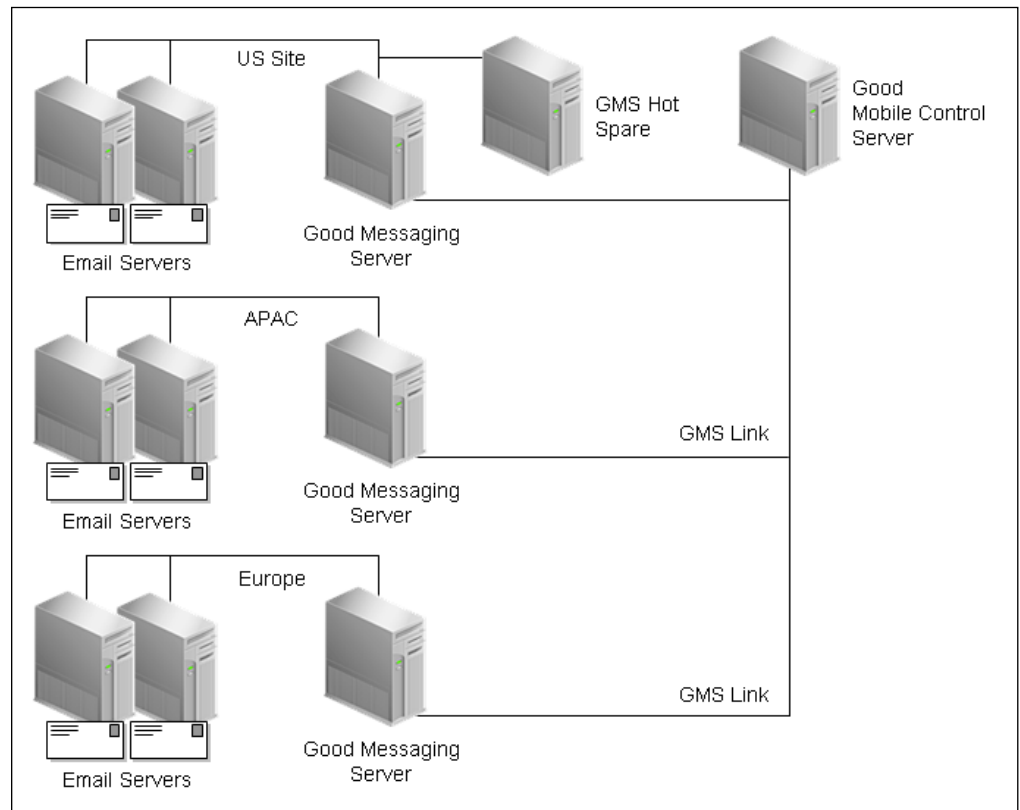


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Given the company's preference to manage all network operations from a single location, the following Good Mobile Messaging design was implemented:



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Four servers are located at the main data center in the US serving 2000 (out of 3000 total) users. The remaining 1000 users are divided between the APAC and European sites.

Good Messaging server and Good Mobile Control also connect to and manage both APAC and European sites. All administration and management (including the Service Account) occurs in the US site. (One hot spare for backup and recovery.)

Three email servers are located in the APAC site, along with one Good Messaging server. All are connected to and managed by the data center in the US location.





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Summary

Each global deployment presents its own unique set of challenges and requirements, depending on the enterprise's overall philosophy and approach to developing and then managing their IT strategy. As IT managers turn their mobile strategy into reality, it is imperative that they consider—and choose to work with—technology providers who can deliver on these key requirements:

- Broad handheld support
- Flexible service and support
- Robust fleet management
- Enterprise-class security
- Scalability across multiple environments

FOR MORE INFORMATION ON BEST PRACTICES FOR GLOBALLY DEPLOYING WIRELESS MESSAGING, CALL 866-7-BE-GOOD.

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