

WHITE PAPER

Addressing the Five Requirements of BYOD for Mobile Unified Communications

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1. Executive summary

BYOD (bring-your-own-device) is simply employees' freedom to use a device of their choice for business communications. This initiative has come a long way for mobile devices from a common policy of rolling out a single platform such as a BlackBerry to a select group of employees. Personal devices, which were mostly feature phones, were used for business only if the company was willing to pay for it. Maintaining separate personal and business phones made complete sense. However, with the introduction of the iPhone and subsequent explosion of highly-sophisticated smartphones and tablets in the consumer market, a new generation of mobile users emerged. With the advanced capabilities and features the new mobile devices offer, employees want to enjoy them not only in their personal lives, but also for business communications.

Allowing employees to choose their own smartphones offers significant benefits such as increased productivity and lower device costs to an organization.

Increased productivity. Employees with business communications and capabilities available on their mobile devices become mobile workers who are better connected and responsive, wherever they are. According to a recent iPass Global Mobile Workforce Report, an average mobile worker works 240 hours a year longer than the general workforce. That is nothing but upside to any business. Additionally, allowing employees to be connected outside of the traditional office space and hours, allows businesses to stay agile and competitive.

Lower device costs. Leveraging employee-owned devices for businesses communications not only reduces an enterprise's need to invest in company-liable devices, but also eliminates device support and replacement costs. The user completely owns the device and is responsible for its upkeep. Resources previously dedicated to device support can be delegated to other strategic initiatives such as mobilizing Unified Communications.

In spite of these obvious benefits, organizations have not been quick to embrace BYOD. The hesitation is mostly related to concerns around security, and the complexities of delivering similar applications, services and user-experience on a wide variety of device platforms.

2. Mobile Unified Communications in a BYOD environment

Extending Unified Communications (UC) capabilities to mobile devices is key to a holistic approach for UC. For the longest time, the only enterprise communication capability extended to mobile devices was email. Luckily, with mobile UC solutions, users can now also access deskphone capabilities, IM and Presence on their smartphones and tablets.

However, key to a successful mobile UC deployment is finding a solution that is BYOD ready – a solution that maximizes the benefits of BYOD, while eliminating the challenges.

What does being BYOD-ready mean? The answer depends on who you are asking. Allowing users to use smartphones and tablets of their choice for business can be viewed very differently depending on whether you are the user, the IT manager, or the CIO.

If you are an IT manager, life was surely a lot simpler back when standard BlackBerry devices were handed to a small group of employees such as the executives and the sales teams. However, supporting a BYOD initiative for UC raises several questions and concerns.

- How can you be sure that the employee-owned devices are communicating with your enterprise applications and infrastructure securely?
- How do you manage and support an explosion of smartphones and tablets with different Operating Systems (OSes)?
- How do you integrate these devices with your existing PBX/UC infrastructure?

If you are a CIO, BYOD is about allowing employees to be more productive, while keeping operating costs low.

- How do you leverage the mobile devices that employees want to use to increase productivity?
- How do you support a wide variety of device OSes without draining your resources and incurring extensive operating costs?

If you are a user, being able to use a device of your choice for business communications can be priceless. However, adding business capabilities to your device should not take away the familiarity and ease of using the device.

- How do you get access to all the deskphone and UC capabilities on your favorite mobile device, without having to change how you use your device?
- How do you keep business and personal communications separate on a single device?

Successfully addressing all these questions is what makes a solution BYOD-ready.

3. ShoreTel Mobility, the leading mobile UC solution.

ShoreTel Mobility is an award-winning mobile UC solution that enables businesses of all sizes to take advantage of the benefits a BYOD initiative has to offer, while addressing the challenges it brings. It is designed to integrate leading smartphones and tablets with existing enterprise communication applications and infrastructure securely, simply and cost-effectively.

The solution includes two components – the Mobility Router and the RoamAnywhere Client.

The Mobility Router integrates with enterprise PBX and UC systems from Cisco, Avaya, ShoreTel, Nortel and Microsoft, and extends deskphone and UC capabilities to mobile devices via the RoamAnywhere Client.

The RoamAnywhere Client is natively integrated with the mobile device (Android, Apple iOS, BlackBerry OS and Symbian S60), and gives users access to features and capabilities such as extension dialing, hold, transfer, presence etc. It also gives users the freedom to connect from any location (office, home, hotspot) and over any network (Wi-Fi, 3G/4G, cellular.)

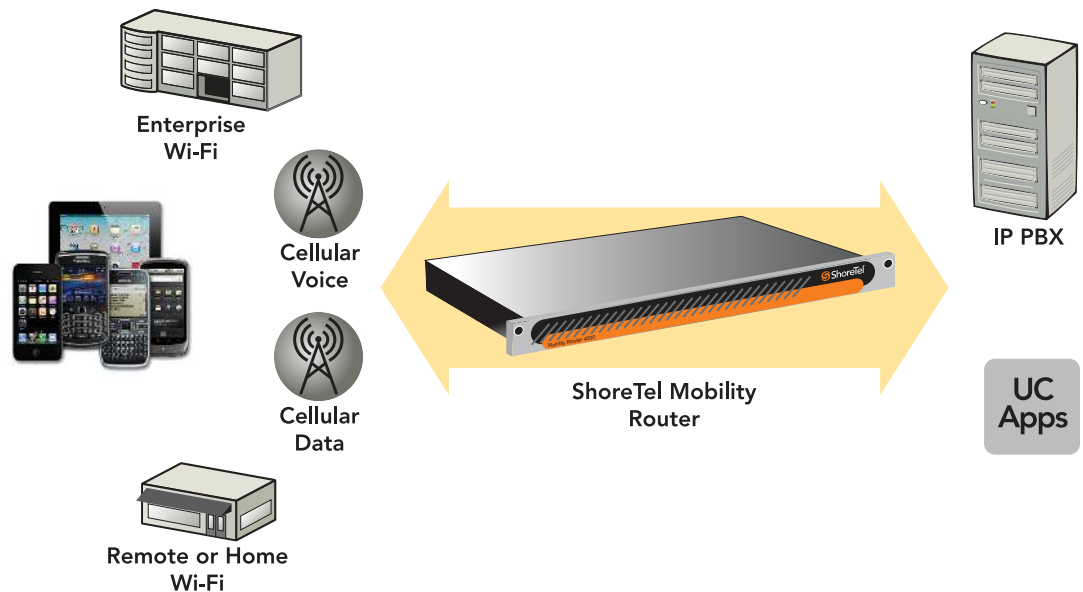


Figure 1: ShoreTel Mobility integrates leading mobile devices with enterprise communications applications and infrastructure

4. Addressing the five requirements of BYOD

#1 – Securing communications

In spite of the productivity and cost benefits of a BYOD initiative, one of the top reasons for IT managers to shy away from letting employees use their personal devices for enterprise communications is security concerns. According to the InformationWeek 2011 Strategic Security Survey, 70% of companies consider mobile devices a current security threat and an additional 20% anticipate them to become a concern in the near future. These are security concerns mainly around unauthorized access to corporate networks and data, and loss of devices exposing sensitive information.

Traditional Mobile Device Management (MDM) solutions are designed at the core to manage a large number of devices and security to some extent. However, they are limited by the device and application capabilities, meaning they can't enable encryption on a device or application that doesn't already support it. Additionally, an MDM's solution to a security compromise is a complete device wipe, which is definitely not a favorite with users.

Alternate approaches such as sandboxing that attempt to create a separate enterprise environment within the device fail when the devices are lost because data is stored on them locally.

With ShoreTel Mobility, security for mobile UC is built in.

- Enterprise UC data is not stored on the mobile device mitigating the risk associated with lost/stolen devices.
- All transmissions between the RoamAnywhere Client on the mobile device, and the Mobility Router which is integrated with the PBX/UC infrastructure are authenticated and encrypted. While this creates a secure container for enterprise communications, a user's personal applications continue to flow normally outside the container.
- Certificate-based authentication (X.509) and AES-128/256 encryption, along with enterprise directory (AD, LDAP, RADIUS) integration ensure robust user and device level authentication and encryption.

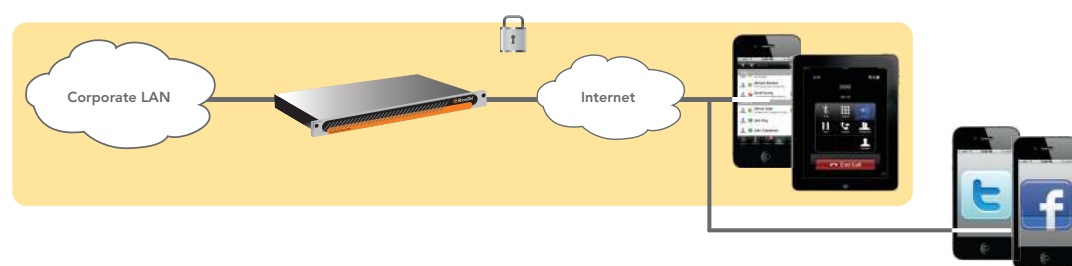


Figure 2: All enterprise communications occur inside a secure container

- A high level of end-to-end and over-the-air (OTA) security is consistently maintained whether the mobile device is inside or outside the corporate firewall.
 - When the user is connecting from home or a hotspot, the RoamAnywhere Client automatically detects that the device is outside the enterprise firewall, and launches an application-layer SSL session, securing the connection. This eliminates the need for a user to manually launch a VPN client to secure communications.
 - When the user is in the office connected to the enterprise LAN, the solution takes advantage of Wi-Fi security standards such as WPA2 Personal and WPA2 Enterprise.

#2 – Managing multiple platforms

With BYOD comes a wide variety of smartphones and tablets. While the sheer increase in the number of devices can be intimidating, it is delivering a consistent user-experience over a medley of platforms that is more daunting. IT managers are not only challenged with finding a solution that extends UC to these devices seamlessly from their existing infrastructure, but also having to provide on-going support to the application on all these devices.

Imagine having to manage three separate mobile UC applications for supporting Android, BlackBerry and iOS devices. It means time and resources required for initial deployment and support are at least tripled. Now the magnitude of complexity can get exponential with large enterprises running multiple PBX/UC systems. Features and capabilities from different PBX/UC systems will need to be extended to a potpourri of devices.

With ShoreTel Mobility, IT administrators have a single point of control and visibility. They manage a single solution irrespective of their PBX/UC vendor, and the mobile device OSes they support.

- Multiple Smartphones, One Solution. ShoreTel Mobility supports a wide variety of smartphones and tablets from Android, Apple iOS, BlackBerry OS and Symbian S60. IT administrators can easily extend UC capabilities to a broad range of devices employees bring to work, through a single solution with consistent features and interface. This eliminates the challenges associated with deploying, supporting and managing separate solutions for separate mobile device OSes.
- Multiple PBX/UC Systems, One Solution. ShoreTel Mobility provides heterogeneous PBX support. It supports PBX/UC systems from Cisco, Avaya, Nortel, ShoreTel, and Microsoft. PBX and UC capabilities from any of these leading systems can be extended to any leading mobile device platform with a single solution. Even organizations with multiple PBXs or a mix of PBX vendors can deploy a single Mobility Router.

#3 – Lowering operating costs.

While providing employees with productivity-enhancing solutions is key to a CIOs' charter, understanding that the costs associated with extending UC to an influx of devices can be deceptively high is critical. The obvious cost benefit of BYOD is reducing capital expenditure by eliminating investment in corporate-liable devices and leveraging employee-owned devices. However, CIOs need to ensure that the cost of supporting those devices does not surpass the cost benefits of mobilizing UC.

With ShoreTel Mobility, IT managers manage and support a single solution irrespective of the mobile device and PBX/UC platforms. Deploying, supporting and managing a single solution minimizes resource investment and keeps operating costs low.

Additionally, cellular expenses can be slashed by reducing international cellular expenses by 30% to 70% with VoIP over Wi-Fi and VoIP over cellular data (3G/4G), and by eliminating cellular international direct dial with intelligent least cost routing through the PBX. In most cases, the cost savings from reduced cellular spend by the top mobile users can be used to fund the cost of mobilizing a larger workforce.

#4 – Increasing user productivity

The key value of enabling employees to choose their mobile device for business communications, is maximizing their productivity.

With ShoreTel Mobility, extending deskphone and UC capabilities to users' favorite mobile devices anywhere and on any network allows them to be more productive. The mobile worker is allowed to retain the familiarity with the device, while gaining enhanced business communication capabilities. Wherever the user may be (office, home, hotel, hotspot, on the road), features such as simultaneous ring, extension dialing, transfer, conference, enterprise directory query and presence are available consistently on any network (Wi-Fi, 3G/4G or cellular.) All the features available only on a deskphone until recently, are now available on a smartphone or a tablet.

Additionally, with ShoreTel Mobility's automatic handover, users can continue a single call across multiple networks. For example, a user can initiate a call in the office on the Wi-Fi network, and continue the call on cellular network while on the road, and again move to Wi-Fi once they reach home. One continuous call across multiple networks. ShoreTel Mobility automatically chooses the best available network.

#5 – Simplifying and enhancing user experience

While employees are demanding enterprise UC capabilities on their personal devices, they are immediately productive only if their device continues to feel and run the same, and they don't have to learn a new application. With ShoreTel Mobility, users can continue to use their devices as they always have.

- Native UI Integration. The RoamAnywhere Client is integrated with the native dialer making the solution simple to use. Users can continue to make and receive calls as always without having to change their calling behavior. The user experience is simply enhanced with the additional enterprise UC capabilities. More importantly, with built-in security, there is no need to launch a separate VPN session to ensure communications are secure.

- Single Device, Dual Persona. Users can keep their personal calls and voicemails separate from business calls and voicemails. With business being the default, once personal contacts are marked, they are automatically recognized for future communications. Outgoing calls to personal contacts display the user's cellular caller ID and incoming missed calls are routed to the cellular voicemail. For users carrying two devices (business and personal) for years, this is an opportunity to lighten their pockets while getting the best of both worlds.

Similarly, separation of personal data and applications eliminates the need for IT administrators to completely wipe the device in case of a security compromise, avoiding loss of valuable personal data and applications.

As we have seen, a comprehensive mobile UC solution like ShoreTel Mobility not only easily extends Unified Communications to mobile devices, but also addresses the challenges a BYOD initiative brings to a business.



Figure 3: ShoreTel Mobility is natively integrated with the device UI

5. Embrace BYOD for mobile UC

Successfully deploying a mobile UC solution in a BYOD environment means meeting several requirements that address the challenges and needs of all the stakeholders. While an IT manager requires a solution that addresses security, control and ease of management, a CIO is challenged with finding a solution that enables his employees to be more productive while keeping the operating costs low. As users, employees want the convenience of using their favorite devices for both business and personal communications without compromising on the ease of usage. The right mobile UC solution successfully meets all the requirements and maximizes the benefits of BYOD.

Key is choosing a solution that is not only secure, but also designed to provide heterogeneous support to a variety of platforms for tackling the continuously growing device choice in the smartphone and tablet market. Knowing that mobile UC solutions like ShoreTel Mobility are BYOD-ready, businesses can embrace the initiative without having to worry about the challenges it brings.

About ShoreTel

ShoreTel is a provider of business communication solutions whose brilliantly simple unified communications platforms, applications and mobile UC solutions promise a new rhythm of workforce engagement and collaboration. With costly complexity eliminated by design from its award winning, all-in-one IP phone system, UC and contact center solution, and its industry leading hosted business phone system, workers enjoy a freedom and self-reliance that other providers can't match. Users have full control to engage and collaborate, no matter the time, place or device, for the lowest cost and demand on IT resources in the industry. ShoreTel is headquartered in Sunnyvale, California, and has regional offices and partners worldwide. For more information, visit shoretel.com or shoretelsky.com



WORLD HEADQUARTERS

960 Stewart Drive, Sunnyvale, CA 94085 USA. shoretel.com and shoretelsky.com

+1 (800) 425-9385 Toll Free +1 (408) 331-3300 Tel. +1 (408) 331-3333 Fax for ShoreTel

+1 (646) 230-5000 Tel. +1 (646) 230-5001 Fax for ShoreTel Sky

EMEA

+800 408 33133 Freephone +44 (1628) 826300 Tel.

ASIA PACIFIC

+61 (0)2 9959 8000 Tel.

