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## Mobile Collaboration and the Small & Midsize Market: Prepare Your Business for the Mobility Revolution

A Frost & Sullivan  
White Paper

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<b>Introduction .....</b>	<b>4</b>
<b>Supporting the Newly Mobile Enterprise.....</b>	<b>5</b>
<i>Consumerization of IT.....</i>	<i>5</i>
<i>Redefining “Mobile Workers”.....</i>	<i>5</i>
<i>Extending the Benefits of Unified Communications .....</i>	<i>6</i>
<i>Multiple User Identities: Balancing Business and Personal.....</i>	<i>8</i>
<b>Fixed-Mobile Convergence: Benefits and Trends .....</b>	<b>9</b>
<b>Key Issues to Consider .....</b>	<b>11</b>
<i>IT Support: Where to Draw the Line .....</i>	<i>11</i>
<i>Policies and Procedures.....</i>	<i>11</i>
<i>Payment and Budget .....</i>	<i>12</i>
<b>Conclusion.....</b>	<b>14</b>

## INTRODUCTION

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The world is becoming increasingly mobile, and businesses are feeling the impact. As more employees work in locations different from those of their colleagues, managers and direct reports, as well as customers and partners, they are struggling to stay connected in an always on, increasingly virtual workplace. Companies must respond by making it easy for people to stay in touch on any device and from any location—all while ensuring employees have access to the same corporate enterprise tools and communications experience regardless of whether they're working from a home office, airport, hotel, or formal business location.

Equally important is the effect that consumer trends are having on IT: In less than three years, the iPhone went mainstream in more than 80 percent of Fortune 500 companies; in less than two years, Android business users reached 3 million; and in less than a year, tablets have gone from newbie to necessity among technologists and mainstream buyers alike. Furthermore, more than 3.4 billion mobile apps were downloaded in 2009, a significant number of which were related to business productivity.

These trends are having a clear impact on business owners and IT managers, who must find a way to balance the needs of their end users while keeping costs in check and security and controls tight. Employees will use mobile devices and consumer services like Skype regardless of whether companies support them or not. Today, almost all CIOs know that the number of mobile employees in their organization is growing, and that they're no longer limited to the road warriors of old. IT managers must implement an enterprise mobility solution in order to stay competitive in a world in which business gets done 24/7, from any location and on a growing number of devices.

Companies that support their mobile workers on PCs, smart phones, desk phones and tablets will keep costs in check, boost user productivity, deliver a consistent user experience, and maintain a single, manageable corporate identity for all end users. An integrated client can enable single-number reach and identity across all devices, unified voicemail, call hand-off, high-quality video, presence and chat, and integrated call logs and corporate directories. An integrated client also helps companies effectively manage communications technology while letting employees work from anywhere.

This white paper will highlight the changes in the mobile workplace; outline the benefits of unified communications (UC) and Fixed-Mobile Convergence (FMC) for mobile workers; identify the key market trends and business challenges IT managers and owners must pay attention to now and into the future; and offer best practices for choosing a solution that will deliver clear ROI.

## SUPPORTING THE NEWLY MOBILE ENTERPRISE

One of the biggest changes in the business world today is the growing number of mobile workers. This is not because people are traveling more for business (indeed, business travel decreased by more than 14 percent in 2009, according to the National Business Travel Association). It's because they are blending home life and work life in ways we've never seen before, thanks to applications and devices that allow them to stay connected, communicate and work from anywhere.

### ***Consumerization of IT***

Until now, the new generation of mobile workers has enabled their own mobility by using personal devices and services (primarily smart phones, feature phones and tablets, as well as Skype and GoogleTalk) to conduct business. But that needs to change; the practice can save companies money, but they ignore the security and control risks associated with personal adoption at their peril.

That said, simply disallowing the use of consumer technology in the enterprise won't work. As employees increasingly use mobile phones and devices to communicate and collaborate with friends and family, they will expect to use the same technology for work—and if you don't give it to them, they'll get and use it on their own. The result: employees making calls to key clients and business partners from their personal phone numbers; skyrocketing cellular costs; no logging or other security and compliance capabilities; and a lack of integration with other enterprise applications and data stores.

To solve this problem companies should provide workers with a complete set of enterprise-grade UC tools and look at ways to extend secure, reliable communications to their mobile employees who need it, while allowing those users to choose their preferred device. By deploying and managing enterprise applications for their mobile employees, companies ensure those workers stay as productive as possible, in a cost-effective manner, and while maintaining a single corporate identity.

### ***Redefining "Mobile Workers"***

In the past, companies only had to concern themselves with true road warriors—salespeople, executives and service personnel—and outfit them with the tools they needed (typically a cell phone, and either a laptop or industry/job-specific device) to do their work from the road. But today's mobile employees are different; they may not travel routinely for work, but they are working routinely from home, on their commute, evenings and weekends, and so on.

Deciding on a mobile policy will be one of the biggest budget and support challenges for companies in the years to come, and it will involve business decisions as much as technology ones. Executives must assess the mobility needs of all their employees, determine what their device strategy will be, and provide the employees with the applications needed to stay productive, securely and cost-effectively.

### **Companies have three options for handling mobile workers:**

1. Provide (i.e., buy) one standard device in each category (smart phone, tablet, soft phone) for a growing number of employees. This lets the business own the hardware and software, and maintain security and control over identity, applications and network traffic. It also gives the company control over access to the device and the data on it should the employee leave the organization or the device get lost or stolen. This may raise the budget, and it can limit employee choice, but it ensures employees have the tools they need to do their jobs from anywhere while providing enterprise control.
2. Let employees choose their own device from a set of standard options, and provide business applications for communications and collaboration. This gives IT control over the business applications employees use on their handhelds, but at a lower cost, and it lets users toggle between “personal” and “business” identities. But it does raise support issues for IT, which may find itself troubleshooting hardware it doesn’t own.
3. Don’t purchase or support mobile devices for the majority of employees. This option carries all the security risks discussed but has the least cost to IT. It also forces employees to restrict when and how they work if they do not have access to the corporate applications from their personal device.

### ***Extending the Benefits of Unified Communications***

Unified communications applications deliver a complete set of voice, data and video capabilities in a single integrated experience. A UC application includes basic and advanced telephony features, including single-number reach, integration with the corporate directory, and unified messaging; presence and chat; audio, Web and video conferencing; and integration with e-mail, calendaring and collaboration applications. The goal is to make it easy for employees to find the right person at the right time, and then use the best form of communication to get information and make decisions in real time.

But as more employees go mobile, and work in locations that are different from those of their colleagues, managers and direct reports, they need access to UC tools from anywhere. For example, if they’re working from a home office or hotel room, they can leverage a PC-based application to get presence and contact information, then place or receive calls, chats and conferences right from their desktop—without incurring long-distance charges, and while maintaining a single corporate identity. If they’re working from a remote office site, they can use hot-desking to access their personal profile and phone number from a cubicle anywhere on the corporate campus. And if they’re working from the road, they can use a

mobile client for single-number dial and reach, plus easy access to corporate directories and other critical business information. The goal is to give users a choice of clients that provide a consistent set of services and experience, regardless of the device they're on or the location from which they are working.

### **Benefits of UC**

In the past, the extended features and capabilities beyond IP telephony were only in larger phone systems, but now vendors are targeting UC solutions specifically for small & midsize businesses.

Taking the step from a "phone" system to a mobile collaboration environment is not as daunting as it first seems. The market is growing, and the requirements for better collaboration are understood and are within reach.

User needs:

- Collaboration alternatives to make business processes more efficient
- The ability to track employees to minimize wasted time and services
- A method to communicate over a variety of devices, many user provided
- A level of security infused into the communication architecture to alleviate a lack of network security
- A system that permits immediate responses to customers that no longer see voicemail as a communication solution
- An ability to respond to customers as well as employees that are used to text messages and IM
- Incorporation of contact lists that follow the user
- Support for communication that finds the recipient and identifies the appropriate connection

All businesses need to be more responsive, more efficient with limited resources, able to support multiple technologies with less IT back-up and more economical in capital expenditures. Moving to a true mobile collaboration solution can address the communication problems facing a "leaner" enterprise in the competitive world today.

Frost & Sullivan research shows that giving mobile workers access to a full suite of enterprise communications is one of the best ways to keep them productive, regardless of where they're working, when, or on what device. In a recent survey of

200 CXOs, 86 percent of companies that have deployed unified communications and collaboration (UC&C) technologies say the tools have improved innovation within the organization; of those companies that have deployed collaboration tools, 72 percent say that they have experienced better performance; and 77 percent of C-level executives believe UC&C technologies enhance employee mobility. Furthermore, 66 percent of C-level executives believe UC&C technologies allow for faster access to people and information, which is critical in this global, 24/7 business environment.

#### **Enterprise Checklist: Is it Time to Give Employees Mobile UC?**

- Your employees, partners and customers are located in more than one place.
- You want to drive better collaboration.
- You need to cut cellular and long-distance costs.
- You want to improve employee productivity.
- You're considering UC as part of a communications update.
- You must support employees who work outside normal business hours.
- Your employees are using consumer-grade services on their own.
- You want to maintain corporate security and regulatory compliance.

#### ***Multiple User Identities: Balancing Business and Personal***

When employees use their mobile phones for business, it creates issues around their identity; at any given time, they may be placing calls for work or personal reasons. The company has an interest in separating these two personas. When the employee is placing or receiving business calls, he is representing the organization; his caller ID should display a corporate number, contacts should be able to reach him by dialing a single, consistent number, and all records around the call, such as call logs, should remain with the business. On the other hand, the employee also has an interest in keeping his personal calls personal.

Deploying enterprise-grade telephony features on a mobile device or PC ensures that when the employee uses his mobile device or computer for communications, a separation exists between his business identity and his personal one. Using the mobile client or soft phone allows him to place and receive calls as an employee, from a corporate number, using directory services, enterprise call controls and logging, and single-number reach. When he's operating as an individual user, he can simply use his cell phone or consumer VoIP service, such as Skype, as he normally would.

## FIXED-MOBILE CONVERGENCE: BENEFITS AND TRENDS

As companies move to support their growing number of mobile workers, many are looking at ways to save money, as well as deliver advanced communications capabilities. Fixed-mobile convergence, or FMC, can go a long way toward achieving this goal. Frost & Sullivan defines an enterprise FMC solution as any feature, service or product that allows a mobile device to connect with the corporate PBX or WLAN to extend corporate telephony features and applications and deliver cost-related benefits through the integration of wired and wireless networks.

A FMC solution can deliver one or more of the following capabilities:

- Basic PBX mobility (or PBX-to-mobile extension)
- Session redirection (device handoff)
- Single-number reach
- Single voicemail access
- Manual or automatic session continuity (call handoff)
- Mobile UC features (e.g., mobile and corporate presence/IM, UM, conferencing, etc.)

A basic FMC solution will deliver first-level PBX-to-mobile extension, including such capabilities as single-number reach, simultaneous ring, single voicemail, and call-control features (e.g., call forward, do not disturb, call hold/resume, etc.) to the mobile device. An advanced FMC solution will also deliver more advanced UC capabilities such as mobile and corporate IM/presence, unified messaging, conferencing, and dual-mode voice call handoff (manual or automatic) between networks.

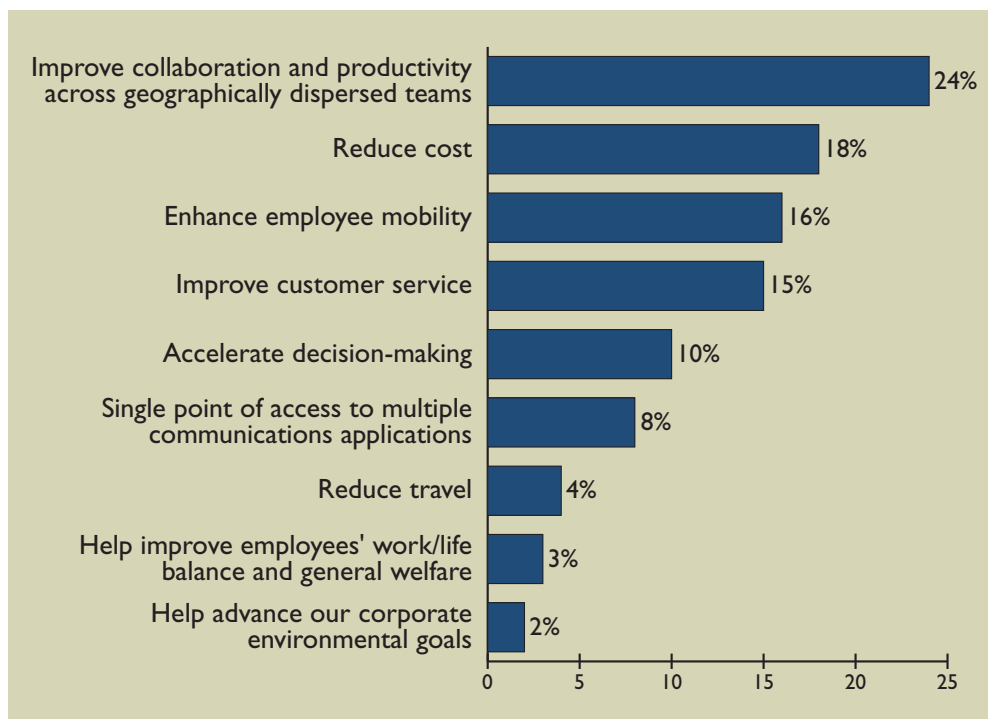
Frost & Sullivan estimates that in 2010, the overall worldwide enterprise FMC market reached 3.33 million FMC units shipped—growth of 32.7 percent year-over-year. FMC offers significant cost savings to enterprises that deploy it, and as enterprises recognize those ROI benefits, Frost & Sullivan expects the compound annual growth rate of enterprise smart phone units shipped with a FMC solution to be about 53.0 percent between 2010 and 2014.

In a recent Frost & Sullivan survey of 200 C-level executives, half of the participants said that their organizations currently use mobile extensions, with usage higher in the healthcare, IT and financial industries. Businesses are using enterprise FMC solutions widely at all levels of their organizations, and 91 percent of users say FMC solutions are very (61 percent) or somewhat (30 percent) important to the organization.



Furthermore, 49 percent of participants identified mobile/cellular phones as one of the primary devices used for business communications, and 34 percent use soft phones as their primary endpoint. Improved collaboration and productivity across geographically dispersed teams, cost reduction, and employee mobility enhancement are cited as the top three most important benefits of using enterprise FMC solutions.

**Figure 1: Top Perceived Benefits for Enterprise Mobility/FMC Solutions**



**The benefits of FMC solutions include:**

- Cost Savings through accessing the enterprise dial plan and transferring mobile calls to low-cost networks, the elimination of global roaming charges, and least-cost routing.
- Increased Productivity through increased availability and responsiveness.
- In-Building Coverage to address poor indoor cellular coverage.
- Leveraging Technology Investments such as WLAN infrastructure or a UC platform.
- Management and Control over mobile communications.

Future usage projections are strong: 92 percent of those organizations already using an enterprise FMC solution plan to use the technology more extensively or maintain usage at the same level over the next 12 months, and 51 percent said that their budgets for enterprise FMC solutions have increased over the past 12 months. Among participants not yet using an enterprise FMC solution, 57 percent indicate plans to do so in the future.

## KEY ISSUES TO CONSIDER

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As companies deploy advanced mobile solutions, including FMC and UC applications, they must manage them as they would any other IT resource. But certain issues are likely to arise that are unique to mobile users, devices and applications—and IT and line-of-business managers should be prepared to handle them.

### ***IT Support: Where to Draw the Line***

When it comes to mobile users, many companies take a hybrid approach to technology deployments. Typically, organizations will allow employees to buy and use the mobile device of their choice—whether it's an iPhone, Android or BlackBerry, or even an iPad or other tablet—then reimburse them for certain charges (cell minutes while traveling, data access, etc.). But as companies install mobile enterprise applications on those user-owned devices, they must consider how, and to what extent, they will support the hardware that runs the software.

If an employee has a support issue with the mobile application, he or she will need, at the very least, telephone support. But if the application is encountering problems with the device itself—or if MIS can't resolve the issue without seeing the machine—that may require the employee to send his or her personal device to the organization for repair. The company must decide whether it wants to take on the cost of such support, as well as what guarantees and alternatives it will offer to the employee who is relinquishing his phone to the company for a day or more.

### ***Policies and Procedures***

If IT opts to deploy a UC client on an end-user device, it risks conflicts with other applications, or the operating system itself, which may interfere with performance of the enterprise application. IT cannot reasonably forbid employees from running apps of their choosing on the devices they purchase and pay for, but it can offer best-practice recommendations for running corporate applications effectively, and it can require employees to abide by certain rules and requirements before they download business applications to their device.

In some cases, employees will access enterprise applications without the express consent—or even knowledge—of IT, either by downloading a free version via an app store or by accessing a Web client via the Internet on the mobile device. Companies can discourage this kind of access, but it's unlikely they will prevent it; they are better off deploying an officially supported version of the software.

**Payment and Budget**

Historically, companies have purchased and issued mobile devices for only a small segment of their employee population. They have also issued desktop or notebook PCs to knowledge workers, who typically also get a desk phone and landline connection. But as the enterprise goes mobile, these budgetary arrangements need to change.

Today, some companies choose to give more of their employees a mobile device and/or a PC soft phone, but they may opt not to pay for a desk phone or landline service. Others will continue to expect most employees to use their personal mobile phone for business, but they will reimburse a certain type or level of charges, or give them access to a mobile UC client or FMC application, to boost productivity and keep connectivity costs in check.

Either way, in order to support the increasingly mobile workforce, businesses should be prepared to pay for mobile communications for more employees than they have in the past. With advanced FMC and mobile UC applications, those same organizations can keep those costs in check.

**Why Avaya for Mobile Collaboration?:**

Avaya has supplied large enterprises with core Unified Communication capabilities for years; it is the leader in making a large enterprise collaborate. This expertise naturally leads to the extension of the same benefits to the small & midsize customer. Avaya has developed a dual appliance approach to providing businesses with the latest in mobile collaboration services.

Avaya's approach offers a selection of hardware and software solutions designed to fit the needs of the businesses, ensuring customers get the solution that best fits their requirements. The key is to provide collaboration at a level that makes business procedures more efficient and more responsive. The Avaya alternatives can do just that.

IP Office is a best-in-class UC platform that can grow efficiently from a single site with few users to 1,000 users across 32 locations. Even with a smaller number of users per site, each location is equipped to provide full UC capabilities, including mobility, presence, conferencing, desktop integration and messaging.

The Avaya Aura Solution for Midsize Enterprises takes a different architectural approach. It provides a virtualized server, supporting multiple Avaya Aura applications at a central site. This means full Avaya Aura capabilities, the best set of Mobile Collaboration features available in the market, in a hardware footprint designed for the midsize enterprise.

The platform can provide full core redundancy, a single server backed up by a hot standby, and auto-switchover second server. This architecture and hardware provides the leading midsize redundant solution, not just resilient, redundant. ME provides a solution that is designed for a centralized midsize architecture—easy to install, administer, support, Mobile Collaboration in a midsize package.

With either platform, Avaya has a broad mobility portfolio, offering mobile twinning, mobile call control (Avaya one-X® Mobile Essential), advanced mobility and FMC solutions (Avaya one-X® Mobile) and Unified Communications for various mobile OS platforms, including Android, iOS, BlackBerry, Symbian and Windows Mobile operating system. Unified call logs, contact lists, and voice messages are consistent across endpoints and soft clients. This means users can see the same communications history logs on their mobile device, their PC and their desk phone for all corporate communications.

On the back end, Avaya provides consolidated server-side UC applications, bringing management and administration onto a single server, thereby reducing IT support requirements and operating costs for lower total cost of ownership.

**Key mobility products include:**

- Avaya Extension to Cellular transparently bridges calls received by the Avaya Communication Manager (Avaya Aura ME) server to any mobile phone, regardless of location or wireless service provider. Bridging offers many benefits over simple call forwarding, including the ability for the user to seamlessly hand off calls between mobile and desk phone, and access to advanced PBX features (like conferencing and transfer) mid-call. Extension to Cellular can be activated or deactivated from an Avaya desktop phone or remotely from the user's mobile phone.
- Avaya one-X® Communicator is an application that turns your desktop or laptop into a complete communications center for voice, video, conferencing, IM, etc. Connect a USB headset, Bluetooth headset, speakers, mobile phone or any standard desktop phone; integrate with Microsoft Office Communicator and other productivity tools; support for H.323 and SIP endpoints.
- Avaya one-X® Mobile Preferred for IP Office is designed for Android Smartphones (iOS iPhone will be supported early 2012), providing rich unified communications capabilities to the mobile workforce. Avaya one-X Mobile Preferred for IP Office provides users with a single number/single identity for both inbound and outbound calls, even if they are using a personal device. Significant cost savings can be realized as calls are routed through IP Office. International calls, which can cost

many dollars per minute, can instead cost pennies. Users have access to a broad range of unified communications capabilities, including visual voicemail, IM, presence, visual conference, corporate directory access, enterprise dialing, geo-presence services, and integrated dialer with native client. This application also makes use of advanced capabilities and hardware commonly available on mobile devices, including streaming audio for visual voicemail, speech recognition, and geo-location presence using on-board GPS.

- Avaya one-X® Mobile Lite designed for Avaya Aura Solution for Midsize Enterprises provides a streamlined feature set through a graphical interface for accessing Avaya Extension to Cellular features. Designed for the Apple iPhone, this client offers a range of mobility features without requiring the deployment of a client server.
- Avaya one-X® Mobile Essential for IP Office delivers basic mobility to any device. Users have a single number—their office number—and can “twin” the desk phone with any mobile or other landline phone. Users can avoid expensive call charges by using the call-back feature, which provides dial tone from the office to initiate a long distance or international call. Mobile call control is achieved using “star codes”: while on a call, the user can place the call on hold, transfer, and add users to a conference. A graphical interface for call control is also available for iPhone, Symbian, Windows Mobile, and Android & BlackBerry.
- The Avaya one-X® Mobile SIP for iOS client provides users access to their enterprise communications (SIP only) from Apple iOS devices, including iPhone, iPod Touch, and iPad via a WLAN or cellular data network.
- Avaya one-X® Portal for IP Office is a browser-based productivity application that gives users a wealth of tools right from the desktop, including call control, audio conferencing control, call logs, visual voicemail, access to corporate directory, federated presence and instant messaging with MS OCS and GoogleTalk contacts, and calendar mining with MS Exchange. One-X portal for IP Office includes a “telecommuter mode,” which lets users enter the telephone number to which all calls will be routed, making it well-suited to remote and home workers. An Avaya IP Office plug-in for Microsoft Outlook provides UC capabilities within the most popular e-mail client.
- Avaya IP Office Video Softphone provides soft phone capabilities to let users make and receive calls from just about anywhere with a high-speed Internet connection. With the addition of a webcam, it enables point-to-point video calls between IP Office users.

## CONCLUSION

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More and more, business is done from locations that don't meet the definition of a traditional office. A new breed of mobile employees is working from home and remote offices or on the road. They're working evenings and weekends. Often, they are using their personal mobile phone or tablet—or consumer services like Skype on their business PC—to enable communications and collaboration.

Technology must provide business advantages, not restrictions; features have to be intuitive and offer real business savings. Technology can mean reduced hardware, power conservation, smaller equipment “footprints”—all advantages that can mean significant savings. ROI from a more technically advanced solution leads to investment in more advanced features and, overall, a better UC business solution for all employees.

Companies must respond to this trend by making it easy for employees to reach one another, as well as business partners and customers, from anywhere, on any device, while ensuring that the employee has the same communications experience regardless of whether he's working from a home office, airport, hotel, client site, or remote office. Fixed-mobile convergence and mobile UC clients—deployed on smart phones, tablets and PCs—can help companies manage their increasingly mobile users while keeping costs low and productivity high. Most importantly, mobile UC clients enable the enterprise to maintain corporate security and personal identification privacy.

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