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Introduction



The nature of work has changed dramatically in the last several decades. The days have passed when most employees arrived at work at the same time and turned off their computers at the end of the day only to start back up the next day. Today's employees are mobile, working from a home office, hotel, or coffee shop anywhere in the world. They have at their disposal a dizzying array of devices that make it possible to work from anywhere at any time: Tablets, smartphones, and notebook computers have revolutionized the workplace.

Mobility has added great flexibility to the workforce. Firms can now let their staff adjust their schedules to meet the demands of their home life. Business travel is more productive since workers can now collaborate with their colleagues and customers on their tablets while at the airport waiting for a connecting flight or from their hotel between meetings.

All this flexibility is great, but the devices themselves can't make collaboration more effective and workers more productive. In order to be more effective, you need the right tools for the job.

About This Book

A mobile workforce presents significant challenges for businesses. All those devices floating around the world have to be connected securely to the business network to avoid security breaches that could cost your company large amounts of money and damage your company's brand. Mobile phone usage and roaming charges can spiral out of control. Your employees are scattered around the globe. How do you bring the right people together at the right time and, more importantly, how do you make sure they have the information they need to make collaboration effective? Bringing mobility to your business comes with many challenges and risks, but you can't afford not to be mobile.

Unified Communications (UC) has already transformed the way businesses communicate. UC brings voice, e-mail, text messaging, instant messaging, presence, and video to business in a single integrated platform. What's missing from the picture is how to add mobility to a business communications platform to make UC work well with mobile devices so that your workers collaborate more effectively and tame the costs of mobile phones and devices.

This book helps you understand the benefits and challenges of the mobility revolution and how Avaya has the products and services that will bring mobility to your business and transform your business communications.

Foolish Assumptions

This book is written for both technical and nontechnical readers. If you are an executive, line-of-business manager, or an IT specialist, this book is for you. Unless of course, you're looking for a book on origami!

Icons Used in This Book

Throughout this book, you occasionally see special icons that call attention to important information. You won't see the typical smiley faces wearing sunglasses or any other blinking emoticons, but you'll definitely want to stop and pay attention! Here's what you can expect.



This icon points out information that you'll want to put into your cache, your memory, or whatever that thing is you use to store information, like birthdays and phone numbers, for later use!



Okay, it's not that technical, but you'll still want to give it a look. Who knows? You might come away with some neat information you can use to impress your friends at parties!



No, you're not being asked to take care of your servers and bartenders! You should stop and take notice because you'll discover bits and pieces of information that could save you aggravation later on.

Beyond the Book

Although this book is chock-full of information, a 72-page book can only cover so much! So, if you find yourself at the end of this book wanting more, just go to www.avaya.com. There, you can get more information about Avaya and its products and solutions, download demos, view webinars, read data-sheets and whitepapers, skim their blogs, and much more!

Where to Go from Here

Whether you are new to UC and mobile communications or are an expert who is looking for ways to take your business communications to the next level, you'll find this book useful.

Each chapter stands on its own so feel free to skip around if you like. If you're familiar with the topics in a given chapter, go ahead and bypass it. You can be assured that anytime topics are referred to from one chapter to another, you'll be told. That way, you can flip to that chapter if you want and make sure you don't miss a thing.

Chapter 1

The Mobile Revolution

.....

In This Chapter

- ▶ Discussing how revolution leads to change
 - ▶ Recognizing what drives mobility in today's business environment
 - ▶ Examining the business environment for mobility
 - ▶ Understanding stakeholders' challenges in meeting their business needs
-

When was the last time you sat at your desk all day? It's probably been some time ago, maybe even years. Yes, the business world is changing. Mobile technology has changed the way we live and work. The leading technical research firm, Gartner, Inc., indicates that mobile computing has changed the way people live in much the same way the automobile did.

Like the automobile revolution, the mobility revolution brings with it many secondary impacts, which is what this chapter is about.

Revolution Is about Making Changes

The mobility revolution changes where people can work and how they spend their days. Mass mobile adoption forces the creation of new infrastructure and spawns new businesses. In short, the mobility revolution threatens the status quo, which is no longer acceptable for your business to compete effectively.

The following statistics demonstrate the impact of mobile computing in the enterprise:

- ✓ Employees spend 21 percent of their workweek away from their primary location. This figure jumps to 25 percent for middle managers and 37 percent for executives. (Yankee Group)
- ✓ More than 75 percent of business leaders indicate that in-person communication is critical to business success. (Economist Intelligence Unit Global Study)
- ✓ 49 percent of an employee's impact on business-unit profitability comes from the ability to help others perform. (CEB IT Blog, 2012)
- ✓ 69 percent of the people who call a business will hang up rather than leave a message (Web Wise Research, BT Group, 2013). The ability for customers and business partners to reach someone in your business no matter where your employees are located is imperative.

As you can see from these statistics, today's employees are moving away from doing business solely in the office. Today's flexible and mobile workforce is conducting business from their home offices, hotels, conference centers, and even coffee shops scattered around the world. Workers interact with different tools based on their locations and their collaboration needs. Increased productivity demands and shrinking budgets — as well as the need for employees to maintain an acceptable work-life balance — drive the need to conduct business by using different types of tools depending on where the employees are and how they work best. Collaboration not only means phone calls and in-person meetings, but now also includes audio, video, and data-sharing applications that must work flawlessly no matter where or what they are.



Simply being connected to colleagues, partners, and customers with a smartphone or tablet isn't enough. Consumer-grade applications won't cut it. Today's market demands high-quality, cost-effective, enterprise-grade audio, web, and video collaboration that is intuitive and works across mobile, PC, tablet, and conference room collaboration systems to keep their businesses up and running efficiently.

Market Trends That Drive Business Mobility

The reality is, today's flexible, mobile workforce changes the game for how businesses operate and compete effectively. In order to survive — and thrive — in today's post-recession global economy, businesses must rethink their business models and face the new challenges that a mobile workforce brings. Embracing business mobility is no longer a luxury; it is in fact an absolute must-have!

When businesses are considering their mobility needs, they must keep the following goals in mind:

- ✓ Increasing productivity
- ✓ Reducing total cost of ownership (TCO)
- ✓ Achieving higher collaboration among employees, partners, and customers
- ✓ Building stronger relationships
- ✓ Accelerating workflow

In today's market, to maintain its competitive edge and to retain the top talent necessary for success, a business must address five trends that drive enterprise mobility: thrift, the rise of the end user, video, mobility, and the cloud.

Thrift

In today's post-recession economy and global marketplace, businesses can't rely on the old ways of doing business nor can they afford to tolerate any inefficiency in their operations. If they do, businesses will find themselves left behind as leaner competitors gain advantage. Business leaders must search every department and every corner to find any possible cost savings. They also must consistently search for new sources of revenue. Business mobility offers opportunities for cost savings as well as ways that companies can generate new sources of revenue.

One large business-mobility cost is the high price of mobile phone charges. Forty percent of businesses identify mobile phones as their primary source of communication. International calls can quickly use up mobile phone minutes and rack up extra charges and fees. A recent study by AMI-Partners shows that businesses send and receive 40 to 50 percent of their mobile phone calls while their people are in the office and in range of the company's Wi-Fi network. Therefore, it's a no-brainer that if companies used a Voice over Internet Protocol (VoIP) over Wi-Fi solution, these calls could be routed over the Wi-Fi network and out over the Internet, avoiding the tolls on the cellular network and saving tons of money. In fact, according to a 2013 study by Avaya, moving calls over the company's Wi-Fi network can save companies on average \$1.9 million a year in mobile phone charges while still delivering the enterprise-grade telephony experience businesses require.



When employees are away from their desks, customers *must* be able to reach them. Each missed call is a lost opportunity: A real-estate agent misses offers on a property because she can't reach an appraiser while onsite, a lawyer can't access an expert witness during a trial and loses an important case, a doctor can't conduct real-time collaboration with a specialist while treating a patient, and so on. You don't just lose time, but you lose future opportunities as well!

Rise of the end user

End users — both employees and customers — are dealing with the challenges that come with the dizzying array of new technologies entering the market. Many of the new video and collaboration applications are difficult to understand and operate, and they require significant training to use them effectively. Many unsatisfied people are left standing when all is said and done. In addition, consumerization is driving new expectations for collaboration tools.



Consumerization is a growing trend in the technology market where end users adopt technology from the consumer market that allows them to do their jobs better and more quickly than the tools their employers provide. Instead of large businesses and government organizations dominating information technology (IT) innovation, consumer demand is now

replacing these entities as the main drivers of technology innovation. Gartner indicates that consumerization will remain a dominant IT trend through 2015.

What impact does this trend have on businesses? The primary impact is that businesses, especially large enterprises, are forced to rethink how they develop their IT infrastructure. In the past, corporate IT established the devices and software applications that employees used so that they could easily control the data and network access and maintain a high level of security. Much of the trend in consumerization started when the iPhone was introduced to the consumer market. Consumers immensely liked the sleek styling, rich functionality, and intuitiveness of the iPhone and wanted to start using it for work as well as for personal applications. Many employees now use their own iPad, Android, or Windows tablet for their work needs. In addition, many companies are employing Bring Your Own Device (BYOD) strategies to allow their workers to choose their own devices for work instead of corporate IT standardizing on a single device for all employees.

The trend in consumerization creates some difficulties for enterprises as they rework their IT infrastructure. Most consumer technology doesn't have the enterprise-grade functionality and security required for maximum employee effectiveness, so finding a way to have enterprise-quality mobile solutions that work seamlessly on employees' consumer devices is imperative.

Video is the new normal

No longer is voice alone suitable for business collaboration. In-person collaboration is essential to maintaining business relationships around town and around the world, but business travel is expensive and time-consuming. The good news is that the technology has finally arrived that makes it possible for people to collaborate in real time with high-definition video on their desktops and mobile devices.

Videoconferencing poses significant challenges for an enterprise IT infrastructure. Many video systems are not intuitive or easy to use, posing IT and training challenges that impede the adoption of videoconferencing in business. Security is also an important concern since video must travel to end users that are outside the trusted corporate network.

The following statistics sum up the importance of videoconferencing and its challenges:

- ✓ 94 percent of users say video collaboration allows them to improve efficiency and productivity. (Wainhouse Research, 2013)
- ✓ 53 percent of companies say the lack of user knowledge and training is a top challenge to rolling out videoconferencing. (Network Instruments)
- ✓ 4 billion meetings are held annually in the United States alone. Videoconferencing can help reduce the time and travel associated with face-to-face meetings.

Mobility

End users don't just use desktop and notebook computers to do their work. Users are now working from their tablets and mobile smartphones as well.

When workers used only their desktops and notebook computers, software and hardware were pretty much standardized so IT departments didn't have as many challenges for content delivery and security. As mentioned earlier, many companies employ BYOD strategies to allow their employees to use their own tablets and mobile phones to do their work. Because these tablets and mobile phones are typically used for both personal and business applications, keeping sensitive data out of the hands of competitors — as well as protecting the enterprise network — is a top priority.

The consumer market has dozens of video and collaboration tools, but the tools don't offer the necessary quality and ease of use, nor do they work well across all types of devices. BYOD strategies don't come without added costs. According to Aberdeen Group research, companies with a thousand devices spend on average US\$170,000 more than organizations with corporate device policies. A mobility solution must have a way for businesses to tame the added costs that come with BYOD strategies.

You can see that personal enterprise mobility and collaboration are changing how people collaborate. The following statistics show some of these collaboration trends:

- ✓ 60 percent of the Unified Communications (UC) growth rate is driven by personal/mobile video. (Gartner)
- ✓ 80 percent of Fortune 100 companies are deploying iPhones/iPads to their employees. (Network World)
- ✓ 48 percent of enterprises have created virtual collaboration (VC) rooms, but on average they have a usage rate of only 28 percent, indicating that employees are not always together in the office to collaborate. (Gartner)

Mobility and the Business Environment

Companies start their journey to mobile from vastly different starting points, technology infrastructure, architecture status, and, more importantly, from different business requirements. Figure 1-1 gives you a look at the starting points when moving to mobile as a series of possible “on ramps” that companies can take.

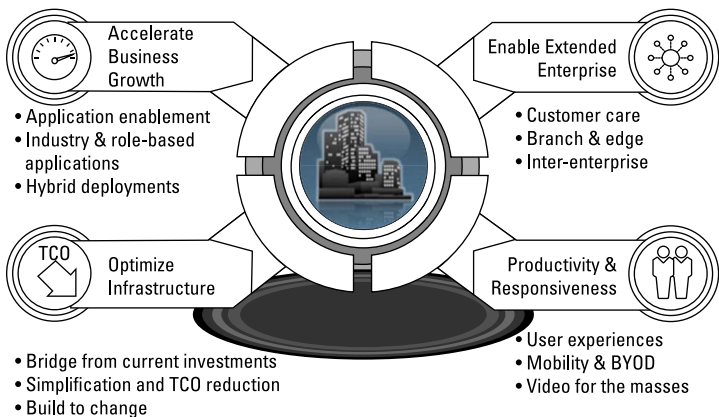


Figure 1-1: On-ramps for moving to mobile business.

The outside arms of Figure 1-1 indicate the different “on-ramps” that enterprises typically take on the route to mobile computing. The following sections take a look at each on-ramp and what the business requirements are in order to get to the destination.

Accelerate business growth

As new deployment models are becoming available, along with toolkits, external services, and internal skill sets for developing applications, businesses are looking to quickly deploy applications that not only bring people together, but that also drive the goals of the expanding enterprise — such as communication-enabled business processes (CEBP) or applications tailored for particular industries and roles.

Optimize infrastructure

Businesses that are looking to optimize their infrastructure on the path to a mobile enterprise care most about lowering the total cost of ownership (TCO). One way businesses can lower TCO is by taking advantage of the infrastructure they already have by consolidating and centralizing this infrastructure while adopting new technology. Enterprises are aiming for a simple “bridge” from their current investments while building their infrastructure to quickly and easily adapt to changing requirements.

Enable extended enterprise

As soon as enterprises have their house in order, they want to expand the focus of their boundaries. That way users, customers, and partners can freely collaborate regardless of where they are and which networks they access. These enterprises are focused on customer care, branch or “edge” applications, and inter-enterprise applications. **Note:** *Branch or edge* applications are those that work in remote offices as part of a centralized communications architecture.

Avaya helps extend the enterprise by offering a solution that can manage the central core of the business as well as support extended locations with features and applications such as mobile collaboration.

Productivity and responsiveness

This on-ramp is all about bringing some order to people's lives and tackling the challenges of a distributed workforce. People should be empowered to be responsive to the needs of the enterprise as well as collaborate to accelerate innovation and decision making. Users are more technically savvy than ever, driving IT departments to tackle the challenge of BYOD. Users are quickly adapting to video collaboration, but IT departments struggle with how to do it so that it scales well and provides a high-quality user experience. The enterprise network must make mobility, BYOD, and video collaboration work so that users don't need to care about how it works, just that it does.

Meeting Your Business Needs

The path to developing a mobile enterprise succeeds only when it addresses the challenges of the key stakeholders to ensure that the needs of the business are met. Those challenges differ according to the key stakeholder: the line-of-business (LOB) executive, the IT executive, or the end user. Figure 1-2 illustrates the challenges of the key stakeholders in the company's mobile infrastructure.

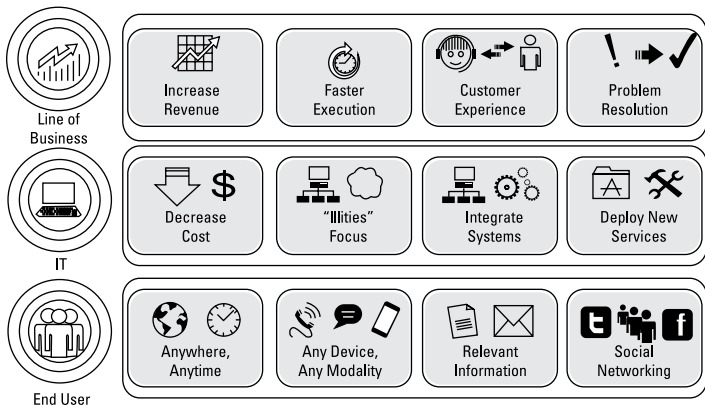


Figure 1-2: Your three key stakeholders and their unique challenges.

A business works to meet the needs of its many groups. The line-of-business executives focus on achieving business results: how to improve the customer experience to drive satisfaction, retention, and loyalty. The LOBs want to know how to resolve internal problems before they severely impact the business. To do this, they need to have the right people in the right place at the right time. These people must be able to collaborate effectively to achieve these goals. Mobile collaboration is essential for the key teams or roles that drive the business, such as sales or the marketing teams launching a new product or service. Each of these players is focused on accelerating the business to execute quickly and respond to customer demands to tackle the competitive dynamics of the market, all while optimizing resource use and keeping costs down.

The IT department is a cost center for business so its focus is on keeping the communications infrastructure up and running while keeping costs at a minimum. The IT department must always balance new application capabilities against standardization and consolidation initiatives so that the company can have the financial means to take advantage of these new capabilities. The IT department continuously seeks ways to simplify existing operations and the integration of systems that can support users with diverse needs.

A company's staff operates under increased productivity requirements and expectations so their needs must be considered as well. End users want their collaboration tools to be easy to use so that they can get the relevant information they need quickly and easily.

This book examines Avaya's mobility solution and how it can serve the different needs of your people at any level.

Chapter 2

Staying Competitive in a Mobile World

In This Chapter

- ▶ Keeping your business competitive in a mobile world
- ▶ Building change into enterprise mobility
- ▶ Getting a handle on the risks and challenges enterprise mobility poses

The competition is doing business from anywhere at any time. Are you?

Chapter 1 talks about how the mobile revolution has changed the way we do business. Business is now 24/7 — at the coffee shop, the hotel, or the home office. Your business can't afford not to be mobile. In this chapter, you get ideas on how your business can take advantage of technology to stay competitive in a mobile environment that demands the utmost in flexibility and productivity.

Accelerating the Speed of Business

When thinking of the issues that face your business today, speed is the first thing that comes to mind. Your business always has to stay one step ahead of the competition as well as be adaptable to your customers' needs and wants. Your business has to meet your customers where they are. To do this, your company needs the technologies that will provide each group in your organization with the right tools for

removing any roadblocks that prevent you from getting your product or service to market as quickly as possible — so that you can keep your customers happy.

Take a look at Figure 2-1 where the center of the image is the enterprise and each end is a point of interaction with the enterprise's customers and end users.

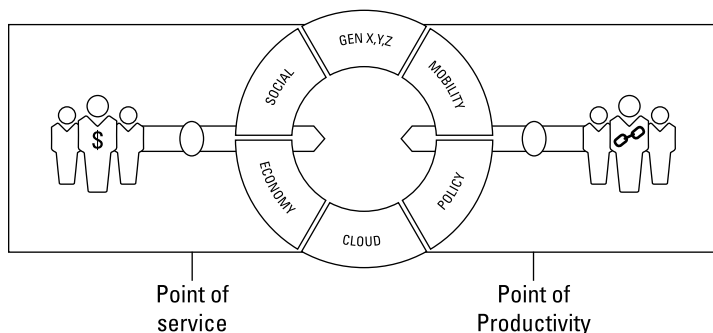


Figure 2-1: The speed of business.

In Figure 2-1, the wheel at the center is an expression of the key trends facing businesses today and how they tie in to the needs and challenges in a business environment. In this wheel, all the pieces form the link between the enterprise and the point of service to customers and the point of productivity with end users, who are your employees and partners. All these pieces are essential for maximizing revenue from your customers and productivity from your employees.



The speed of your business doesn't just depend on one technology or group of people. The speed of your business moves at the speed of the slowest parts of the key business processes, such as customer service, operations, supply chain, or new product development. Your business must have speed entrenched across all interaction and delivery points from production to distribution, point of sale, and customer service. Like cogs in a machine that must be well lubricated and working at the same speed, all the pieces must work together and at the same speed with the same efficiency to achieve the goal of maximum revenue and employee productivity.

Avaya has the tools to enable real-time collaboration across the enterprise for key users to ensure rapid results, especially for mobile workers. Avaya also understands how employees who are responsible for executing the business targets are impacted by trends and market dynamics. In Chapter 3, you learn about the tools and services that Avaya offers to transform collaboration and the enterprise.

The Only Constant in Business Is Change

The only thing you can count on in business today is change, and only those businesses that have the flexibility to respond to changing environments and market dynamics will survive. The only way your business can develop the agility to succeed in the marketplace is to build change into whatever it is your business is planning.

So that you can get a better understanding of how you can build change into your business processes, consider some of the forces at work in Figure 2-2.

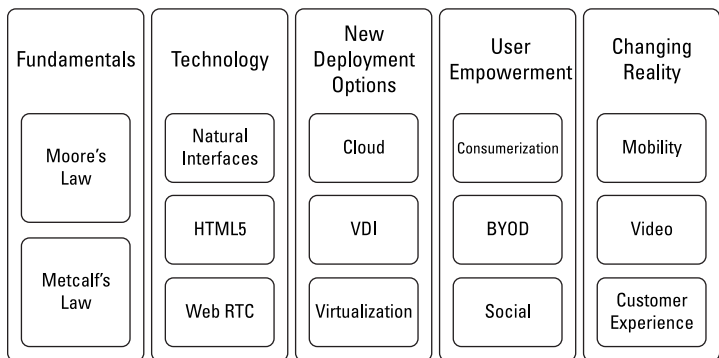


Figure 2-2: The enterprise imperative . . . built for change.

A couple of fundamentals are at play that have transformed computing and computer networks in the past 50 years or so. These are Moore's Law and Metcalfe's Law:

- ✓ **Moore's Law** dates back to 1965 and has been pretty accurate in its prediction that computing power doubles approximately every two years. In fact, your smartphone has more computing power than the lunar module that landed on the moon had in 1969! In fact, in just the last few years, smartphones and tablet computers have revolutionized how work is done (refer to Chapter 1). Nobody can predict what technology will bring next — only that more fundamental change is certain to come.
- ✓ **Metcalfe's Law** dates back to around 1980 and states that the value of a telecommunications network is proportional to the square of the number of users connected to the system. Put more simply, a network that connects only two people isn't all that valuable, but a network that connects millions or billions of users is extremely important. You can see the significance in this when you think about the Internet as a whole or the value of social networks, or even the collaboration systems in the enterprise. They have all brought the explosive growth and flow of information outside the enterprise onto social networks and the Internet and inside the enterprise with Big Data initiatives.



Big Data is a buzzword you often see in the IT and business computing world. Simply put, Big Data is a general term for the tools, processes, and procedures for creating, manipulating, and storing large data sets that aren't easily managed with traditional database management tools. We can't measure today's data storage requirements in megabytes, or even gigabytes. We're now talking terabytes, petabytes, or even exabytes of data!

In the last few years, rapid changes have taken place in technologies that allow people to access data on the Internet from their browser or mobile device. Today's web is moving toward a more social, collaborative, interactive, and responsive web. In the early days of the web, it was simply a tool for accessing information. Now, just about everyone has become part of the new web in which we reach out and collaborate with other people in the form of social media sites, blogs, social networking sites, social news, and wikis (websites that allow users to provide content in collaboration with others). Each of these types of sites shares a single theme — human interaction.

Besides the fundamentals of computing that have transformed mobility, a couple of new technologies are also playing an important role in this transformation.

- ✓ **HTML5 (HyperText Markup Language Version 5)** is the latest standard of the core technology used to display web content to users in their browsers and mobile devices. These extensions to the HTML standard allow browsers to do more than display static data markup and simple user interactions. They also allow for interactive features such as drag-and-drop, timed media playback, document editing, and cross-document messaging (the ability to allow web documents to communicate across different sites and domains). As a standard, HTML5 allows for web content to be rendered in web browsers on PCs or on smartphones and tablets. HTML5 is transforming the web from a data access tool into an immersive environment for data sharing and collaboration.
- ✓ **WebRTC (Web Real-Time Communication)** is a standard drafted by the World Wide Web Consortium (W3C) to enable browser applications for voice calling, video chat, and data sharing. Businesses can now build websites that allow their customers to send and receive information and at the same time initiate a video chat. For example, an auto insurance company can enhance its customer support with a mobile web app that allows its customers to initiate an accident claim. Using HTML5 and WebRTC, this app can allow customers to fill out their policy information, provide the other party's contact information, upload photos of the accident scene, and start a video chat with their agent all from a single app on their smartphone right from the scene of the accident.

Deployment models such as the cloud and Virtual Desktop Interface (VDI) can help companies save money and reduce risk by reducing hardware to maintain and software to install. Businesses can roll out new solutions and test new features and services quickly and with low risk to their customers, especially with public and managed clouds. With other flavors such as private and hybrid clouds, businesses can accelerate and customize their deployment.

Chapter 1 examines what can be called “the rise of the end user.” In today’s marketplace, the end user is quite often who drives innovation rather than large businesses and government entities. Your business must stay in tune with what your employees and customers are using because they’ll be the ones driving expectations for your business.



As you can see in Figure 2-2, fundamentals and technologies exist that are changing the realities that businesses face. The only constant is change, and only the agile survive.

Mobility Brings Many Risks and Challenges

The mobile revolution has not only transformed the way we work, but your business also must embrace mobility in order to survive. Mobility does come with some business risks and challenges, however.

As discussed in Chapter 1, consumer-grade technologies don’t cut it when it comes to business mobility requirements. Figure 2-3 illustrates some of these risks and challenges that mobility poses to business.



Figure 2-3: A look at mobility’s risks and challenges.

Employees don't have access to enterprise-grade telephony away from their desks

Sixty-nine percent of people who call a business will hang up rather than leave a message (refer to Chapter 1). Also, employees spend 21 percent of their workweek away from their desks so it doesn't take a genius to see that people who call your business might not get in touch with anyone. The result could well mean that your subject matter experts (SMEs) or team members may not be able to collaborate, thereby delaying time to make decisions or missing customer calls that will negatively impact revenue.

The rapid growth of employee phone charges

Companies are reluctant to deploy mobile solutions to employees because of the rapid growth of mobile phone costs that are negatively impacting the bottom line. Worse yet, companies don't have a plan to address and tame the expansion of mobile phone costs. Forty to 50 percent of cellular calls are made and received while the user is in the office and in range of the corporate Wi-Fi (see Chapter 1).

If, for example, your IT consultants can't use the Wi-Fi to make and receive calls while away from their desks, then your business is losing large amounts of money because IT isn't using the Wi-Fi to handle these calls. Companies with BYOD devices spend considerably more money than companies with corporate mobile phone policies. Your business can't afford to waste this kind of money when your competitors are operating more efficiently.

Employees lack rich video collaboration

Your employees can't see or share data in real time with SMEs or customers, which limits shared understanding of content and decision making with colleagues and/or customers.

Say that you're a physician attending a medical conference. Using rich video collaboration capabilities, you can meet virtually with a group of specialists to discuss and view patient results. Person-to-person or multi-party videoconferencing helps you collaborate on a diagnosis and together determine the best treatment plans for greater responsiveness and faster results. Maintaining business relationships is essential to profitability and employee productivity. In fact, 94 percent of employees say video collaboration allows them to improve their efficiency and productivity. Without rich video collaboration, your business is losing valuable time and money.

Employees conduct non-secure communications

Security is the top concern for businesses, but when employees are away from their desks, how can you be sure that sensitive information doesn't fall into the wrong hands? When workers are making phone calls from the local coffee shop or their home office, those calls are subject to eavesdropping as well as hackers getting access to that data over unsecure Wi-Fi networks — but it isn't just Wi-Fi networks that pose risks. Anytime someone makes a call into the company's network from a public network, those calls can be hacked into *and* expose the company to toll fraud.



Toll fraud has been around as long as toll calls have, but the technology and techniques have changed. Voice over Internet Protocol (VoIP) technology uses the Session Initiation Protocol (SIP) for maintaining the state of the voice call as well as authenticating users and encrypting call data. Hackers can gain access to an enterprise's phone system using spoofed identities to take advantage of weak user authentication and access control. Once hackers have access to an enterprise's phone system, they can make toll calls at the expense of the enterprise.

The Communications Fraud Control Association estimates that toll fraud losses worldwide are between US\$35-\$40 billion. Your business can't afford to endure those kinds of losses and still remain competitive.



Not only can the direct costs of crimes like toll fraud impact your business, but so can the indirect costs that come from damages to a company's reputation, as well as those that come from competitors gaining access to sensitive company data due to security lapses. For example, if lawyers aren't able to safeguard their conversations with clients, sensitive information may wind up in the wrong hands, leading to damage to the firm's reputation and litigation from clients whose data have been released to unauthorized parties.

An Enterprise-grade Solution for Business Mobility

Avaya's enterprise mobility solution extends rich Unified Communications (UC) and collaboration features to mobile employees and can address the risks and challenges that come with business mobility. With Avaya's solution:

- ✓ Mobile employees never need to miss a call, and they have access to enterprise UC features from anywhere.
- ✓ Your business can minimize mobile worker phone changes by moving calls to the corporate Wi-Fi when possible, saving roughly US\$1.9 million per year.
- ✓ Mobile employees can, with a single click, use the video collaboration features from the most comprehensive set of devices.
- ✓ Mobile workers' communications are always secure. Government regulations pose serious challenges for organizations of all sizes. Companies struggle to secure their networks and maintain compliance with regulations for such things as healthcare and credit card and banking information. Data breaches and subsequent fines and litigations cost U.S. businesses \$534 million every year.

Chapter 3 takes a more in-depth look at Avaya's mobility solution and how it can save your company money by ensuring that your mobile workers are as productive and effective as possible while keeping down costs.

Chapter 3

Transforming Mobile Communications

In This Chapter

- ▶ Looking at collaboration transformation
 - ▶ Understanding which solutions are the right ones
 - ▶ Taking a look at mobility's risks and challenges
 - ▶ Discovering mobile communications service offerings
-

Today's mobile business environment poses several key challenges for companies. This chapter discusses Avaya's vision for transformative collaboration, which is bringing awareness to collaboration so that it can transform the enterprise.

Transforming Collaboration

What does bringing context awareness to collaboration mean? Avaya's solution helps customers bring the right people together with the right information in the right context to help businesses achieve better results. Although technology should enable collaboration, it should not dictate how collaboration is done. Avaya's approach is to use open communications platforms so that customers can decide what works best for them regardless of the devices they use, their locations, or the type of media they use to collaborate.

Context awareness creates more effective real-time and non-real-time collaboration. Context awareness is a fancy way of saying that the collaboration tools understand the context of its users — their location, availability, and other status

information — and can communicate that to other users so that they're aware of each other and can find the right way to get information to those people quickly. Figure 3-1 shows Avaya's vision for collaboration.

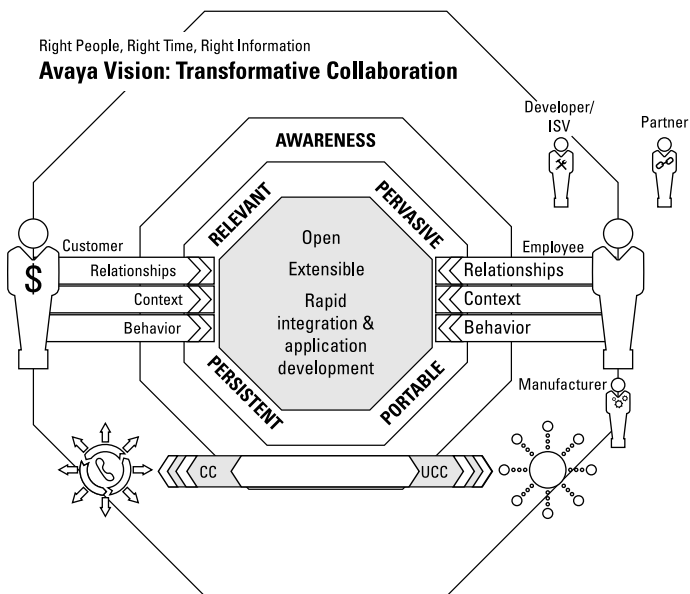


Figure 3-1: Avaya is transforming collaboration.

As mentioned in Chapters 1 and 2, businesses must be competitive to succeed, and organizations must find better ways of getting the right people to collaborate quickly inside and outside the enterprise. What you see in Figure 3-1 is how people are providing input and driving the core of Avaya's collaboration vision.

Today, business communications are typically “siloe,” meaning that several different tools and devices that don't really know what the user is doing or work well together are used for communication. Communication is too often non-real-time where e-mail and document portals are over-used instead of using rich data-sharing applications and video collaboration to communicate the same information in real time. Business communications are generally ad hoc and labor intensive; each person has to do the work of bringing

the right people together and fetching the right information needed for each interaction. The status quo isn't going to get it done. There must be a better way.

Avaya's vision starts with the right user experience, which is built into all its interfaces. The right user experience brings together all modes of communication with multiple directories and enterprise and social media information. Avaya's experience also provides presence and user context so that businesses can gather the right people with the right information very quickly.

The mobile workforce and new collaboration technologies clearly put pressure on IT departments to deliver the improved productivity and cost savings that businesses demand. In order to make collaboration easier to deploy, Avaya has invested in a communications framework that allows the right applications using multiple modes of communications to be deployed easily to the right users wherever they are.

Delivering the Right Solution for All Types of Users

Before taking a look at Avaya's product capabilities for mobility, check out Figure 3-2 for a picture of what the full mobility "stack" looks like.

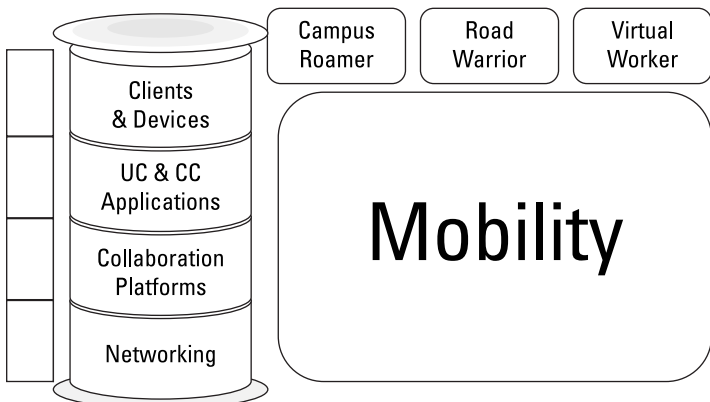


Figure 3-2: Mobility relies on the full stack.

Looking at Figure 3-2, think of mobile technology as a stack of components made up of clients and devices, Unified Communications (UC) and Contact Center (CC) applications, collaboration platforms, and networking hardware and software. Any mobility platform can only be successful if it works for all types of users, defined here as the Campus Roamer, Road Warrior, and Virtual Worker, which are discussed later in this chapter in the section “Support for different types of mobile workers.”

Addressing the Risks and Challenges of Mobility

Chapter 2 talks about the four challenges and risks that mobility poses on the enterprise. This section takes a look at Avaya’s value proposition for addressing these challenges, as shown in Figure 3-3.

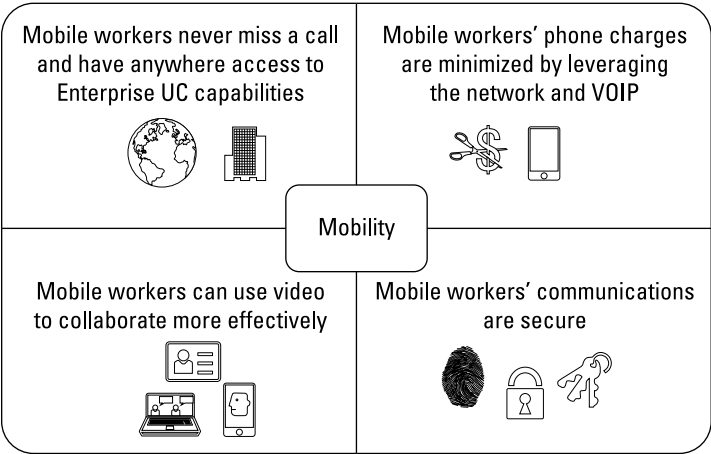


Figure 3-3: Avaya can address the risks and challenges of mobility.

Avaya offers products to enable businesses to collaborate effectively and securely while minimizing the growing costs associated with mobile collaboration.

An enterprise-wide collaboration platform

The foundation of the enterprise-wide collaboration platform offers advanced UC and CC functionality throughout the organization. This platform provides voice, video, data, and web communication applications and services to your team almost anywhere — in the office or on the go.

Avaya's platform delivers rock-solid reliability and adaptability through which you can support new applications and customer services immediately, choosing from among 700 features and an expanding set of applications. With Avaya's platform, you can count on scalability and flexibility that supports features from click-to-call video to advanced contact center functionality.



A platform brings together hardware architecture, software architecture, and application frameworks to allow your software to run and provide services to end users.

Avaya's collaboration solution contains the following components:

- ✓ **An enterprise-wide collaboration platform as the foundation for all communications and collaboration applications.** You can streamline communications with a single solution. Avaya's collaboration platform scales across locations large and small, reduces overhead costs for administration, dynamically optimizes bandwidth, virtualizes your core communications capabilities, and keeps everyone connected regardless of location. You can configure your platform for up to 99.999 percent availability so that you can keep your business communications and customer contact solutions up and running, providing a dependable and consistent link between your organization and the outside world. Avaya's platform is flexible enough to allow you to continue moving forward across digital, IP, and SIP-based solutions with core and application upgrade paths that renew and extend your investment.
- ✓ **An integrated audio, web, and videoconferencing solution that is easy on users, budget, and IT resources.** This solution puts collaboration tools in all your users'

hands, no matter which smartphones, desktops, or tablets they use. You get audio, web, and even videoconferencing, so you can call a meeting and everyone can connect. The collaboration solution lets your users focus on meeting purpose and content — instead of logistics. Its calendar integration lets people easily schedule and join meetings. Participants know and control what's happening in the conference thanks to the easy-to-use Avaya interface. Avaya's solution lets you bring conferencing in-house saving service provider and network trunking fees, possibly reducing your WAN usage and costs significantly.

✓ **UC and collaboration clients.** Avaya offers a portfolio of easy-to-use client applications that serves the diverse needs of mobile and virtual workers across operating systems (iOS, Android, and Windows) and devices (tablets, desktops, and smartphones) that make mobile decision making and knowledge sharing simple. Avaya's products also include mobile applications for smartphones, tablets, and laptops that are all in one integrated communications center that provides the following features so that you can manage your contacts, view your voicemail easily, and stay in touch when away from your desk:

- Instant Messaging
- E-mail
- Peer-to-Peer (P2P) Video
- Personal and corporate contacts
- Single-number reach
- Corporate directories
- Visual voicemail

Integration with the Avaya Aura stack extends the audio, web, and videoconferencing to users. Out-of-box integrations with third-party applications allow users to enhance these applications with critical real-time UC and collaboration capabilities. See the section “Enabling application integration via an ‘open’ approach” later in this chapter for more about integrating Avaya's platform with third-party applications.

✓ **Videoconferencing anywhere — take the meeting with you.** You know videoconferencing lets you meet with colleagues, partners, and customers no matter where they are. Avaya's solution lets you join any meeting easily

from your desktop or mobile device, always giving you the option of having a face-to-face meeting. You can enable anyone — inside or outside of your organization — to join your virtual meeting room using the freely distributed Scopia Desktop and Mobile Applications. Scopia lets you use any device from any location to moderate or participate in a meeting, share content, discuss, and make decisions.

Avaya's videoconferencing solution supports the BYOD movement with the ultimate standards-based and enterprise-grade, mobile, high-definition videoconferencing applications that add value to your company by:

- Providing a rich user experience. You can conduct meetings with award-winning, full-featured video collaboration that allows you to control, moderate, and administer capabilities. Your team has fully interoperable personal video collaboration anytime, anywhere, on any device.
- Having a simplicity that fuels usage. You can connect with customers and colleagues with a single click. These intuitive apps are easy to install and use so that people can start collaborating easily.
- Being affordable, which is what every business needs. Skip those complex licensing fees or installation hurdles when you use a freely distributed client, giving you a low total cost of ownership (TCO) and significant return on investment (ROI).

✓ **Identity engines that make access-control management simple.** Using Avaya's identity engines, you can do the following:

- Secure network access for your employees, guests, and partners even when they are using personal devices at work. In supporting the BYOD trend, securing access is of utmost importance. You must define and enforce who gets on your network, with what device, and where they go. Identity engines give you granular control of both users and devices.
- Set the policies you need. For example, a user who connects wirelessly to the corporate network with a work-provided laptop is granted full access. The same user connecting with a personal iPad is granted restricted access. This solution integrates with any vendor's equipment so that you can add it to your network with confidence.

- Quickly provision guest access to your network while maintaining security and providing an audit trail. Anyone can create a guest access account in just a few seconds. Avaya's identity engine comes with an intuitive interface that lets you set up and control network access. Avaya's extensive and detailed network access and health-checking software helps you ensure both corporate policies and regulatory security compliance standards are met.

✓ **A wireless LAN solution that supports the BYOD surge.**

Avaya offers the Wireless LAN Series that lets you fully support the wide array of personal and mobile devices that's pouring into enterprises. All these consumer smart-phones, tablets, and handheld videoconferencing tools are causing network performance and security concerns. Avaya provides a highly scalable, real-time, optimized, and secure wireless networking solution incorporating the latest 802.11n wireless standard. This solution features a simplified and unified wired/wireless architecture that delivers wireless capacity, performance, and operational efficiencies. The Wireless LAN 8100 Series provides access points, controllers, and management software.

✓ **Session Border Controller (SBC) for a complete application-layer security architecture in one device.**

Avaya's extensive Session Border Controller comes with a SIP firewall, intrusion detection and prevention, access control, authentication, and policy enforcement to protect your real-time UC applications. The SBC comes with an intuitive interface to manage the device. You can create a precise demarcation where SIP trunks meet your network creating a shield against Denial of Service (DoS) attacks, application-layer threats, and toll fraud. The SBC provides fine-grained policy enforcement to ensure ongoing compliance. With the Avaya Session Border Controller for Enterprise, you can confidently and securely enable rich UC applications for remote workers, inside and outside the enterprise.

See the sidebar, "A Unified Collaboration platform," for a look at Avaya's collaboration platform, which business partners and software vendors can use to create, customize, and deploy a powerful mobile and collaboration solution.

A Unified Collaboration platform

Avaya's collaboration platform is a true application platform that is based on the principles of openness, extensibility, and rapid integration. *Openness* means that instead of using proprietary standards, Avaya's platform uses open, public standards that make the platform capable of being integrated easily with other third-party hardware and software. The ease of extensibility of Avaya's platform yields a rapid integration into an enterprise's communications network, saving you valuable time and money.

Avaya's open platform architecture permits application development, meeting any customer requirement. The Avaya solution supports both Enterprise Collaboration and Contact Center interfaces to address desired enterprise integration.

Avaya's collaboration platform enables Avaya DevConnect partners

and Independent Software Vendors (ISVs) to deliver maximum value to customers. Partners and software vendors can take advantage of the fact that this platform offers a single, unified development environment that can be used with all application programming interfaces (APIs) and software development kits (SDKs) that make up the platform. With Avaya's collaboration platform, developers have "one-stop" access to the largest install base of communications users. Avaya's platform has the necessary scalability, reliability, and security built in so that developers only have to worry about developing applications that solve the customer's problem. Avaya's platform code features a "write-once, use many" modularity that makes it simple for developers to write reusable code modules in the products they develop for customers.

Support for different types of mobile workers

It is important to note that "one size does not fit all" when it comes to applications to support mobile employees. People in different roles have a need for different tools, depending on the task at hand and from where they're working. When choosing how to support each of your users, you need to determine their weekly profile of how and where they work. A company's mobile workers can be categorized into three key profiles (refer to Figure 3-2).

- ✓ **Campus Roamer:** These workers work from the lab, meeting rooms, or other colleagues' offices. For these employees, mobility is essential while keeping the costs of mobility down. Because they have frequent access to the corporate network, these employees can leverage the network and Wi-Fi for cost savings when making mobile calls. Campus roamers also need features such as single-number identity and click-to-call so that others can reach them if they are at their desk or somewhere else on campus. Avaya offers easy-to-use apps that can be downloaded from app stores for Android, iOS, and Windows.
- ✓ **Road Warrior:** These employees must keep business moving while on the go by maintaining a real-time connection with experts and increasing their responsiveness to customers. Avaya offers enterprise-grade telephony, presence, 24/7 call logs, and unified contacts to ensure that these employees never miss a call and can have access to experts for faster decision making.
- ✓ **Virtual Worker:** These staffers work from anywhere, such as customer or partner locations or the home office. These are the power collaborators who coordinate with dispersed teams, partners, and customers, and they must be able to build a face-to-face virtual culture that drives more effective relationships. The Virtual Worker's tasks are video-centric so they need enterprise-grade video solutions to enhance knowledge sharing and decision making. Avaya's solution offers the Virtual Worker easy, VPN-less secure access to content and knowledge-sharing applications with network address translation (NAT) and firewall transversal. Avaya enables ad hoc multi-modal conferencing and collaboration with whiteboarding, conference controls, and reporting that scales to thousands of employees virtually anywhere. Avaya's solution expands conference room deployments to remote users on the iOS and Android-based smartphones and tablets, and on Mac and PC desktops with a simple web browser plug-in. This conferencing solution also provides continuous presence to all participants.



Avaya Aura Suite licenses recognize the dynamic way that people work. The foundation, mobile, and collaboration bundles provide an easy and flexible way to mix and match apps licensing to support your broad spectrum of workers.

Enabling application integration via an “open” approach

Avaya’s open approach extends Avaya voice, video, real-time web collaboration, and conferencing into third-party applications, such as Microsoft Lync, SAP, and Oracle, making it possible to start an interaction from within the user’s context. Although an open approach sounds nice, what does it really mean? The open approach of Avaya’s solution lets users take contact information to do tasks such as click-to-video call and click-to-schedule/join a conference from Microsoft Lync and Microsoft Outlook. Users also can initiate communications from CRM applications such as salesforce.com or Microsoft Dynamics. These capabilities are what make Avaya’s solution “context aware.”

Nothing interrupts a productive work session like stopping work in one application to launch another application so you can send an instant message or e-mail. What if you could continue working in that application and start a quick audio or video call right from your instant message window, and then get right back to what you were doing? Avaya makes it simple for users to use applications they’re already familiar with to start a collaboration session without interrupting the task at hand.

Service Offerings: Narrowing the Technology Gap

Many organizations just don’t have the in-house skills to address new initiatives, such as video, mobility, and real-time collaboration. Not to worry! Avaya’s service offerings have you covered. Avaya’s Professional Services organization has the domain skills and experience to enable businesses to achieve the full benefits of mobile and collaboration technology, improving their performance and increasing their return on investment (ROI). Simply put, Avaya’s Professional Services offers dedication to clients’ needs, innovative services and tools, and ground-breaking service delivery.

Rolling out a mobile deployment is a challenging endeavor for any organization. Once the deployment is in place, an organization needs highly competent people to support its deployment and address any issues that may arise. Avaya's Global Support Services offers strategic support, expertise, and diagnostic tools for the optimal performance of the mobile deployment.

Most organizations have an existing infrastructure that is integrated with their mobile infrastructure. In many cases, this infrastructure contains components from third-party vendors that may be implemented on different platforms. Avaya's Managed Services provides accountability for managing communications with multiple vendors so organizations can rest assured that their mobile deployments will integrate successfully with their existing infrastructure.

Avaya makes a compelling value proposition to businesses with its vision to transform mobile communication, which will transform the enterprise. Chapter 4 takes a look at specific use cases where Avaya's vision has added value to many types of organizations.

Chapter 4

Something for Everyone

In This Chapter

- ▶ Looking at how and where we work
- ▶ Examining how Avaya's products solve customer problems
- ▶ Applying Avaya's products to transform business mobility

This chapter takes a close look at customer requirements for organizations in different types of industries. You also see how specific Avaya products address specific customer problems, and you get some customer case studies that show how Avaya has deployed its mobility solution in organizations transforming their business.

Products for All Kinds of Users

Mobile users typically fall into three kinds in almost all types of organizations: the office or task worker, the mobile or virtual worker, and the power collaborator. For a mobile communications solution to succeed, the solution must address the needs of all three types of users. In Figure 4-1, you see the user needs across the enterprise.

Taking a closer look at these user profiles, an organization measures the value of *office or task workers* by the speed in which they perform their tasks. In many organizations, these workers are on the front lines as the link between people outside the organization and those on the inside. These employees are also the link between people in different groups within the organization. The office staff need tools that allow them to complete their tasks quickly and effectively with features such

as name lookup, single-click dial, conferences, instant messaging (IM), and presence. They need to know where people are and how to bring them together quickly.

Office/Task Worker	Mobile & Virtual Worker	Power Collaborator
<ul style="list-style-type: none">• Name lookup• Click-to-dial• Desktop video• IM/Presence• Voicemail• Conference calls	<ul style="list-style-type: none">• Remote access-audio/video• Enterprise features• Single-number reach• Device choice• Ready access to content	<ul style="list-style-type: none">• Multi-tasking• BYOD• Voice/video/web• Conferences• Share content

Figure 4-1: User collaboration needs extend across the enterprise.

Mobile and virtual workers are the knowledge workers in an organization. These employees work from remote offices or from their homes and may not be direct employees of the organization. They may be, for example, contractors hired for a limited duration to complete a specific task or project. Mobile staff need secure remote access to the organization's networks with the same enterprise features used by in-house employees, such as single-number dialing, so they can be reached with a single number or extension no matter where they are located. Mobile workers also must have access to collaboration and UC capabilities from many types of devices (including tablets, smartphones, and laptops) so that they can keep business moving independent of where they're working or the task at hand.

Power collaborators tend to include knowledge workers, project and sales teams, and executives — staff who spend their days collaborating with customers, partners, and colleagues within an organization. Power collaborators are heavy users of video and data-sharing collaboration tools that must support a BYOD policy since they often collaborate, for example, from a tablet computer from the airport and a notebook computer from a temporary office or hotel room.

You can read more about these user profiles in Chapter 6.

Products That Serve Many Vertical Markets

Knowing that Avaya has products for all types of staff, this section offers some examples of the vertical markets that Avaya's products serve.



A *vertical* market is a market in which vendors offer products and services for a specific trade, profession, or industry, such as hospitality, financial services, and healthcare. A vertical market is in contrast to a *horizontal* market, which is defined by technology, company size, or geography. Vertical markets are defined by their specialized needs, so it is important that vendors have a deep understanding of those needs to properly serve that market.

This section looks at two vertical markets served by Avaya's mobility solutions: healthcare and hospitality.

Healthcare

The state of the healthcare industry around the world has dramatically changed in recent years. New government regulations are linking medical reimbursements and funding for hospitals to the patient experience in terms of quality and patient outcomes. In the U.S., for example, many states allow for some reimbursement for telehealth services, whereas some states mandate that private sector insurance companies cover telehealth services. Standardized digital patient records and software-driven processing are creating unprecedented opportunities for the healthcare industry to achieve efficient communication, collaboration, improved patient care, and ultimately a reduction in the cost of patient care.

Hospitality

In the post-recession economy, hotels and resorts are fighting harder than ever to remain competitive faced with slim margins and customers' increasing expectations. Guests expect the best experience and don't hesitate to take their complaints

to social media. Hotel staff is scattered throughout the property and focused on different tasks so it is challenging, yet vital, that employees be responsive to customer requests. Avaya has a solution to help keep your staff connected and responsive to customer requests.

Use case: Enabling effective nurse collaboration

Nurses make up about 30 percent of a hospital's staff, are the largest constituent population in any hospital, and are on the front lines of patient care. Effective nursing is all about getting the right information to the right people in the right time and location, known as *context-aware collaboration*. More often than not, when the nurse calls a physician from the nurse's station, the physician is busy with a patient so the nurse leaves a message. Because physicians are busy people, they then return the call hours later continuing this game of "phone tag." If effective nursing is about context-aware collaboration, given this scenario, the effort is failing.

Connectivity must happen for effective communication to take place. All the systems in a hospital must talk to each other and share data seamlessly. In a "smart" hospital, communication discontinuity is no longer a problem. Personnel have the information they need, when they need it.

What technologies make a hospital "smart"?

- ✓ Core communications, such as the Internet and networking equipment, voicemail, electronic badge readers, and the wireless technology that modern hospitals have come to rely on.
- ✓ Applications and solutions that improve workflow so that various hospital processes can be streamlined and work better together.
- ✓ Clinical mobility technologies and solutions that allow people to be in contact whenever and wherever they need to be; all the devices and equipment that connect mobile people and equipment to each other.

Avaya Healthcare Solutions allow hospitals to take full advantage of their voice and data networks to make nurses and other staff more productive and workflows more efficient. Avaya Healthcare Solutions consist of

four categories: Healthcare Mobility, Healthcare Workflow, Healthcare Notification, and Patient Contact.

Avaya Healthcare Mobility includes

- ✓ Asset Tracking and Management using Radio Frequency Identification (RFID) tags and wireless Local Area Network (LAN) technologies to reduce equipment searches and inventory time.
- ✓ Mobile Device Checkout to allow nurses and clinicians to “check out” a mobile device with a personalized contact number at all times.
- ✓ Nurse communications with a set of advanced communications tools to support the collaboration demands of nursing staff.

Avaya Healthcare Workflow solutions use integrated communications technologies to streamline and automate processes, such as:

- ✓ Patient Discharge, which automates the process of internal and external approvals and notifications to allow more patients to be discharged quickly.
- ✓ Patient Admit, which automates the communications process dealing with patient admittance, increasing productivity and reducing costs.

Avaya Healthcare Notification solutions allow information and instructions to be transmitted in real time

to a specific doctor, nurse, or other professional. For example, the Nurse-Call Response allows the nursing staff to receive and respond to urgent patient needs and reduces long wait times for patients.

Avaya’s Patient Contact solutions provide an interactive patient, clinician, and hospital experience. The Patient Contact solutions streamline communications to ensure patient satisfaction and promote relevant information delivery when required. Some examples of Patient Contact solutions include

- ✓ Patient Follow-Up, which automates the follow-up calls that hospitals conduct once a patient leaves the facility to lower patient re-admissions through increased patient monitoring post-discharge.
- ✓ Patient Appointment Reminder, which automates the appointment reminder process, reducing the number of missed appointments and allowing hospitals to increase revenue and eliminate non-critical administrative tasks.

Technologies are available to free nurses from the nursing station so that they can provide patients with the best care. Hospitals reap the benefits of increased reimbursements due to better patient outcomes and more efficient use of staff resources.

Use case: Keeping hotel guests happy

The hospitality industry is as competitive as ever. Hoteliers are seeking innovative ways to create a new kind of customer experience that embraces the new expectation of today's "connected guest." So, what do today's guests want? In the past, basic amenities such as clean sheets and towels were enough to make a guest happy. Expectations have changed, and today, guests want more. Today's guests want free Wi-Fi to access the Internet 24/7 for entertainment, e-mail, and hotel services from their own devices. Guests expect a high level of convenience with the ability to get what they need and to conduct business from anywhere on the property so that they can make the most use of their time away from the office. Finally, guests want to use their personal mobile devices to make calls and arrange activities without using the in-room phone. Think about it: When is the last time you used an in-room hotel phone?

Hotel guests' expectations have drastically changed, and those changes have created new challenges for hoteliers. Consider the following important trends and statistics that impact the hospitality industry today:

- ✓ The Number One gripe of hotel guests is the lack of Internet access.
 - ✓ 98 percent of guests share positive hotel experiences with friends and family.
 - ✓ 80 percent of U.S. travelers are active on social networks — sharing both good and bad experiences.
 - ✓ 74 percent of guests cite impersonal treatment during their stay as a top peeve.
- In order for hotels to survive and thrive, they need guests with happy experiences. Both good and bad news travels fast on social networks! How does Avaya help hotels create a positive experience for today's "connected guest"?
- Avaya understands that guests want fast Wi-Fi access so that they can browse the Internet and access hotel amenities and services conveniently on their own devices. With Avaya's Guest Assist solution:
- ✓ Hotels can meet their guests' Wi-Fi needs, which in turn helps ensure that their guests will give the property positive reviews and will return for future visits.
 - ✓ As an innovative mobile app that guests can download, guests easily can glance at all the hotel amenities as well as access promotions, facilities, and services. Guests can do everything from

ordering room service, picking up messages, and accessing entertainment.

- ✓ Hotel staff can deliver a better guest experience. All guest requests are entered into a database where tasks can be assigned to specific employees wherever they are located. Staff members get an alert on their device when assigned and can

quickly report its completion to managers. In addition to enhancing their customer service, by managing tasks efficiently in real time, hotels can improve their staff's productivity and improve their responsiveness, saving money and creating more positive guest experiences to brag about on social media.

Case Studies: Demonstrating Value for Customers

Customer case studies are helpful for seeing how products can solve different business cases across various vertical industries. When it comes down to it, you really want to see some examples of how customers have adopted Avaya's products and how they have transformed their mobile communications to help their people collaborate more effectively. This section looks at some specific case studies in the financial services and legal vertical markets in which Avaya's products transformed their business.

Financial services

The financial services industry has undergone dramatic changes in the post-recession economy. Increased government regulations, security threats, and competition have driven the need for companies to comply with strict regulations, protect sensitive customer information, and provide better customer service to build a loyal and happy clientele.

Case study: A North American bank

A North American bank provides a full range of financial products and services to millions of personal, commercial, corporate, and institutional clients in North America and internationally.

Business Issues

This bank needed to do the following to stay competitive and maintain customer loyalty:

- ✓ Streamline operations, reducing the number of vendors it manages.
- ✓ Position itself to take advantage of newer Unified Communications (UC) technology.
- ✓ Improve customer service for its employees and Contact Center (CC) agents.

Solution

Avaya delivered a services-based solution including One-X Mobile and Microsoft Lync integration and full-time onsite resources to provide architecture, design, help desk, and technical deployment roles.

Business Value

By deploying the Avaya solution, the bank met its objectives by achieving the following:

- ✓ Eliminated costs of managing multiple vendor relationships for its communications infrastructure by engaging Avaya as a trusted advisor.
- ✓ The “one-stop” approach enabled the bank to reduce total cost of ownership (TCO) by 15 percent.

Case study: An insurance company

An insurance company has a history of commitment to outstanding customer service, but it was operating with outdated systems that lacked multi-channel capabilities.

Business Problem

This insurance company’s headquarters wanted to improve its business efficiencies by:

- ✓ Eliminating manual back-office processes.
- ✓ Increasing efficiency by moving away from its existing Private Branch Exchange (PBX).
- ✓ Consolidating its contact center applications and networking to a single vendor.

- ✓ Adding multi-channel customer service capabilities.

Solution

Avaya delivered a seamless collaborative environment by migrating this company's system to the Avaya Aura architecture, streamlining its operations with a single-vendor solution, automating back-office processes, and adding UC to its business with Avaya Aura collaboration architecture, including One-X Communicator, Flare, Unified Messaging and mobility apps, plus contact center and networking solutions.

Business Value

By deploying the Avaya solution, this company met its objectives with the following:

- ✓ Extensive expertise and knowledge of customer's infrastructure — a trusted technology partner.
- ✓ The mobility and collaboration apps that improve the sales force productivity as well as operational efficiency.
- ✓ A "one-stop" solution for UC, CC, and networking applications and hardware.

Legal

Attorneys are often away from their offices either in court or in meetings with clients. While away from their desks, attorneys must be able to communicate securely and effectively with their clients and colleagues, avoiding unauthorized disclosure of client information, which can result in litigation and/or professional discipline. Clients demand to have instant access to their attorneys to discuss their cases, so mobility is a high value in the legal vertical.

Avaya's mobile and communications products and solutions have something for everyone. Avaya is transforming collaboration through innovative products and services, bringing efficient and context-aware collaboration to the enterprise.

Case study: A law firm

Attorneys in a law firm must be responsive to their clients while maintaining confidentiality. Although attorneys make many of their calls from the office, their mobile calls are quite high.

Business Problem

This law firm was seeking to improve its operating efficiency while safeguarding the information exchanged between its attorneys and clients. The firm faced the following challenges:

- ✔ Attorneys use mobile phones as much as desk phones, spending on average 50 percent of their time at client locations.
- ✔ Attorneys consume cellular minutes by taking calls from their mobile devices.
- ✔ Attorneys must have convenience and productivity. They are billed by the minute so the old adage of “time is money” is especially true.
- ✔ Attorneys must safeguard client communications and personal information.

Solution

Avaya addressed this firm’s communications challenges by providing the following products and capabilities:

- ✔ Avaya’s One-X Mobile Dual mode and Session Border Controller (SBC) provide intelligent handoff between the firm’s Wi-Fi and cellular network.

- ✔ 24/7 call logs capture all inbound and outbound calls. Incoming calls ring simultaneously on the attorney’s desk, mobile, and home office phones.

- ✔ Partners and attorneys use presence services on Avaya Flare iPad while paralegals and secretaries use Microsoft Lync for presence and instant messaging with attorneys.

- ✔ Avaya SBCs provide secure, VPN-less connection to video calls and corporate resources from public networks.

Business Value

After deploying Avaya’s solution, this law firm realized the following benefits:

- ✔ Attorneys never miss a call so they can do business and be accessible to their clients from anywhere.
- ✔ Calls are sent over the corporate network to drive down the cost of international calls.
- ✔ Wi-Fi is used for free calls instead of using cellular minutes.
- ✔ Witness and client communications are secure.
- ✔ Attorney cellphone numbers are kept confidential.
- ✔ Access to collaborate with colleagues is instant.

Chapter 5

Reducing the Cost of Mobility

In This Chapter

- ▶ Calculating the costs of a mobile workforce
 - ▶ Reining in roaming and plan overage charges
 - ▶ Putting mobile solutions to the test
-

Mobile phone costs are spiraling out of control from many enterprises (refer to Chapter 1). Customers need to contact your company, and your employees need to collaborate effectively no matter where they are or your business can lose significant revenue or a decline in employee productivity.

This chapter goes into more depth about cost-saving solutions for a mobile workforce.

Mobile Math: Roaming and Overage Charges

Most businesses today are playing defense when it comes to managing their mobility costs. The mobile revolution means that your employees have to stay in contact from anywhere in order to keep up with the competition — which means that having a mobile workforce costs serious money (see Chapter 1).

On top of the device costs, companies also have the recurring costs of mobile phone minute plans. And, don't forget to factor in the unforeseen costs that show up from international roaming fees and plan overage charges.

A recent audit of a networking technology company revealed that four of their phones in Saudi Arabia were racking up charges of more than US\$12,000 a month. But wait, it gets worse! The company had no way of knowing who was using what devices and where within the corporate network they were using them!



The costs of mobility aren't just the ones you see, such as roaming and overage charges. A lack of transparency about who is using which device and where they're using it creates a major cost through security and data-loss risk as well. If you can't keep track of the devices your employees are using, then how do you know that they aren't being used by unauthorized people and on unsecure networks? If sensitive information is released to competitors or if important data is lost, the costs to your company can be quite extensive. You won't see the costs on your bill, but you'll feel the damage when your company is unable to remain competitive because of them.

Bringing Down the Costs of Mobility

About 50 percent of calls made or received by employees occur when they are located in the office and in range of the company's Wi-Fi network (see Chapter 1). If you could route those calls over the company's Wi-Fi network instead of the mobile carrier's network, you could avoid using mobile phone minutes and avoid possible roaming and overage charges. Fortunately, you can — by implementing mobile Unified Communications (UC).

UC applications deliver a complete set of voice, data, and video capabilities in a single integrated experience. Deploying mobile UC allows businesses to ensure that their mobile employees never miss a call and that they have secure access to enterprise-grade telephony and UC capabilities while reducing costs. An enterprise-grade UC system can route calls from mobile phones over the Wi-Fi network into the UC system, avoiding mobile phone minutes and potential long-distance charges.

Consider an enterprise scenario in the U.S. consisting of 15,000 employees, with mobile users numbering 2,500. Figure 5-1 illustrates the typical breakdown of minutes used

by the 2,500 mobile employees in various roles and examines some of the cost-containment strategies that can potentially save a company millions of dollars. In many cases, the deployment costs could be recouped in three months. Here, the company required that employees use the corporate-labile plan instead of individual plans since corporate plans pool unused and reused minutes across users.

	Corporate Liabile Plan	# of Mobile Users
Low Usage Employee	< 400 mins	823
Typical Employee User	450 mins or 7.5 hrs	420
Campus Roamers	900 mins or 15.0 hrs	306
Virtual & Field Workers	1,350 mins or 22.5 hrs	259
Sales Workers	2,000 mins or 33.3 hrs	520
International Warriors	4,000 mins or 66.67 hrs	122
Executive Road Warriors	6,000 mins or 100.0 hrs	50

Figure 5-1: Mobile phone usage by various worker roles.

Given the usage patterns and using the carrier's published tariff rates, the typical U.S. enterprise would spend US\$489,274 per month and a staggering US\$5,871,289 per year! Imagine the savings if this company could eliminate or reduce international charges, reduce voice overages by 80 percent, and eliminate roaming charges. When you look at the total yearly costs, that phone bill becomes a significant budget item.



The costs mentioned in the preceding paragraph are based on the published tariff rates from the carriers. Many companies get discounts that may range between 20 and 30 percent. Since those discount rates aren't published, they don't appear in these calculations.

One way that companies can reduce their mobile costs is to route long distance cellular calls through their communications system. The roaming charges incurred when mobile users make calls outside their host country are significant, but organizations can save on roaming charges by

- ✓ Utilizing the Wi-Fi network when available.
- ✓ Using local Subscriber Identity Module (SIM) cards plus Avaya's Mobility solutions to manage the multiple phone numbers.



A SIM card is a portable memory chip used mostly in cellphones that use the Global System for Mobile Communications (GSM) network. These cards contain the account holder’s personal information, including phone number, address book, text messages, and other data. Avaya’s Mobility solution replaces the user’s personal number from the SIM card and replaces it with the company’s number so that the user’s personal information is kept private.

Figure 5-2 shows some of the savings (in U.S. dollars) that companies can realize when using their phones from countries such as the United Kingdom, Germany, and the United Arab Emirates (UAE).

Annual Long Distance from Mobiles and Savings				
Country	Cost Today	Cost using Avaya Mobility	Savings	%
UK	\$41.197	\$14.207	\$26.990	66%
Germany	\$81.386	\$6.650	\$74.736	92%
UAE	\$116.007	\$36.476	\$79.531	69%
TOTAL	\$238.590		\$181.257	

Figure 5-2: Mobile savings gained by Avaya Mobility.

You can see that the cost savings of using Avaya Mobility to avoid long distance and roaming charges are substantial. In order to stay competitive, companies must look everywhere for cost savings. The Avaya solution adds significant value to the enterprise.

Studies show that on average 46 percent of all roaming charges are outbound calls. Assuming a 40 percent reduction of outbound roaming usage by employees with access to Wi-Fi networks, Figure 5-3 shows you the cost savings in U.S. dollars.

Now we’re talking! As the savings add up, your business reins in the cost of mobility throughout the enterprise.

Annual Roaming Costs from Mobiles and Savings			
Country	All Roaming Cost Today	Outbound Roaming Cost	Savings by Reducing Outbound Roaming Usage 40%
UK	\$82,657	\$38,022	\$15,209
Germany	\$80,000	\$36,800	\$14,720
UAE	\$88,625	\$40,767	\$16,307
TOTAL SAVINGS			\$46,236

Figure 5-3: Reducing roaming costs by using Wi-Fi.

Putting Avaya Mobility Solutions to the Test

Avaya Mobility solutions help businesses stay competitive by reducing expenses and delivering a set of easy-to-deploy applications and services to users. Extending business communications to mobile devices ensures that employees can be accessible and productive even away from the office.

Avaya Mobility clients provide numerous ways to help cut back on mobile expenses by

- ✓ Transferring mobile calls to landlines. Avaya Mobility enables organizations to pre-configure common numbers and/or devices (for example, temporary work space, hotel numbers, and so on), which allows mobile calls to be placed on a “free” landline.
- ✓ Eliminating global outbound roaming charges. When traveling abroad, outbound roaming charges can quickly add up. Your Avaya mobile client can solve the problem of roaming charges by sending a data signal to the enterprise network to effectively convert outbound calls to inbound where roaming charges are less.
- ✓ Moving call control (pickup, hold, disconnect, and so on), notifications, instant messaging, presence, directory search, and other data traffic to Wi-Fi when possible.
- ✓ Making “free” calls over Wi-Fi and then handing the call over to the cellular network when out of Wi-Fi range so that employees can move from offices, airports, and cars.

- ✓ Using least-cost routing. Have calls (especially international calls) routed from the carrier's network to the enterprise network so that you can take advantage of least-cost routing.
- ✓ Eliminating charges for cellular voicemail.
- ✓ Using centralized call-detail records to distinguish between work-related and personal calls on mobile billing.

Avaya's solutions give businesses the tools they need to keep mobile costs down while giving them the security they need to protect their sensitive data, resulting in considerable cost savings.

Chapter 6

The Right Stuff

In This Chapter

- ▶ Seeing what it takes to capture the benefits of mobility
- ▶ Comparing Avaya's solutions
- ▶ Licensing Avaya Aura

Previous chapters in this book talk about the challenges and risks that the mobile revolution has created for enterprises, as well as the types of products and solutions needed for businesses to stay competitive and keep their workers more productive. This chapter outlines the mobile architectures that your business needs in order to thrive in the mobile world.

The Rise of Collaboration

Does your business have what it takes to thrive in the mobile world? Does it have the right mobile and collaboration architecture to keep employees accessible and productive, increasing revenue and decreasing costs?

The time is now for Unified Communications (UC). After the 2008–2010 financial downturn, the demand for Unified Communications and Collaboration (UCC) solutions has been growing. In a survey of more than 1,000 IT and business professionals carried out by a technology research firm, 60 percent are planning to implement or upgrade existing UCC solutions within the next three years. In addition, an 11.2 percent growth rate of UCC is predicted through 2016. Mobility is a big factor in the growth of UCC: The rise of smartphones, tablets, and other mobile devices has taken place in spite of the world being mired in an economic slump.

Several factors drive enterprise UCC:

- ✓ **Business is virtual.** An enterprise is no longer defined by the outline of a building. Employees, partners, suppliers, and customers can be anywhere. The ease of accessibility and collaboration increasingly defines the business.
- ✓ **Generational shift.** The generation of people born between 1946 and 1964 (commonly called the Baby Boom Generation) is near or at retirement age, and many of that generation are exiting the workforce in droves. At the same time, the generation of so-called Millennials (people born in the 1980s and 1990s who entered adulthood from 2000 and beyond) is becoming a large part of today's workforce. Millennials are avid users of the latest mobile devices and social networking technology.
- ✓ **Global competition.** Many new entrants into the marketplace from Asia and Latin America aren't burdened with legacy systems and are quick to adopt UCC systems.
- ✓ **Environmental concern.** UCC solutions enable people to work from anywhere, reducing commuting and business travel and therefore saving fuel and vehicle emissions.
- ✓ **Video.** Video has moved out of dedicated meeting rooms and throughout the enterprise with cost-effective desktop and mobile applications, finally realizing the promise that has been talked about for decades — perfect real-time video collaboration.

The Right Platform for the Job

An enterprise-grade UCC solution must be built on the right architecture to do its job, which is to transform communication and collaboration throughout the enterprise. Avaya Aura is just the architecture for people-centric collaboration.

Avaya offers its proven IP Office UCC platform for midsize businesses with smaller budgets and limited IT staff. IP Office is designed for businesses with up to 2,000 users and extends Avaya innovation to the midsize business providing a seamless experience for voice, video, and mobility. IP Office may also be

considered as a cost-effective branch office collaboration solution that can be run independently or connected to the Avaya Aura network.

As discussed in earlier chapters, business communications are often “siloeed,” meaning they are composed of different tools for different vendors that provide a single function and don’t work well with each other. Avaya Aura is a real-time communications architecture using session-based collaboration technologies.

Avaya developed Avaya Aura specifically to address the needs of people-centric collaboration in today’s mobile enterprise.

Avaya Aura uses a revolutionary application of the Session Initiation Protocol (SIP) architecture to unify media, networks, devices, applications, and presence across a common infrastructure.

Avaya’s vision for collaboration technology is that it be “context-aware” (refer to Chapter 3). *Context awareness* comes from users not only knowing who’s calling, e-mailing, or texting but also having the context: previous e-mails, instant messages, screen pops (automated pop-up messages usually in web browsers that are initiated by incoming calls, e-mails, or text messages) of customer or partner information or charts and data relevant to the conversation.

Chapter 3 mentions Avaya’s “open” application framework for building and extending a UCC architecture. This openness enables Avaya Aura to integrate existing Private Branch Exchange (PBX) systems and other third-party communications applications into a single, centrally managed infrastructure. This core environment makes it possible to deliver immediate payback in network access, management, and operational costs. Avaya Aura lays the foundation for collaborative solutions such as Radvision video, rich presence, and the innovative Avaya Flare Experience.



Because Avaya Aura is built using open industry standards, it supports vendor interoperability and integration to third-party environments, preserving a company’s investment in existing communications infrastructure.

The Avaya Aura collaboration platform is made up of several components, such as:

- ✔ **Avaya Aura Session Manager:** A session-based architecture that makes it possible to manage users and multi-media communications across the enterprise. Avaya Aura Session Manager has the capability to work with existing PBX systems and other collaboration systems, providing users with real-time communications services.
- ✔ **Avaya Aura Communication Manager:** Builds on the Session Manager core to provide a software foundation for real-time voice and video communications. Avaya Aura Communication Manager delivers more than 700 services for UC, including support for mobile devices, contact center functions, messaging, auto attendant, advanced conference calling, and E911.
- ✔ **Avaya Aura Presence Services:** Integrates and distributes rich presence capabilities across a wide range of business environments. Avaya Aura's Presence Services collects and distributes presence information from multiple sources, including Microsoft and other third-party applications, and serves as a centralized manager of people's presence data.
- ✔ **Avaya Aura System Platform:** A platform that uses virtualization technology to enable enterprises to consolidate applications on a single server. Virtualization saves businesses a significant amount of money in hardware costs, licensing, management, backups, and upgrades, and other system management expenses.
- ✔ **Avaya Aura System Manager:** A centralized, secure, browser-based management console that allows network administrators to perform tasks such as configuring devices, managing users, setting up dial plans, call-routing policies, security, performance monitoring, and licensing. This is a one-stop application for managing the UCC platform.
- ✔ **Avaya Aura Session Border Controller for Enterprise:** Provides security for real-time communications that go beyond the border of a company's internal network.



A Session Border Controller (SBC) is a device used in communications networks to perform such tasks as signaling, user authentication and security, SIP protocol normalization (integrating applications or devices that use different variants of the SIP protocol), and many others. SBCs are typically placed at the edge of a company's internal communications network to interface with external networks, such as the Internet.

- ✓ **Avaya Aura Collaboration Environment:** An application-development platform that makes it easy to develop applications to meet the needs of diverse roles, tasks, or vertical market requirements. Bridging between UC and contact center capabilities, Avaya Aura allows developers to create solutions without requiring specialized knowledge of communications and allows the solutions to extend across voice, video, e-mail, and SMS (texting).

Many Avaya applications are built on the Avaya Aura platform that provides a comprehensive suite of advanced communications applications for voice, video, mobility, messaging, conferencing, contact centers, and much more. Some of these applications include the following:

- ✓ **Avaya's UCC client:** Delivers a single, integrated, easy-to-use experience across platforms. Seamless escalation between all modes of collaboration provides contextual, intuitive movement between workflows, turning smartphones, tablets, and desktops into mobile decision-making and knowledge-sharing tools and real-time access to your enterprise, partners, and customers with integrated audio, video, and web-conferencing capabilities.
- ✓ **Avaya Video Solutions:** Provides high-definition, cost-effective video for individuals and workgroups across the enterprise.
- ✓ **Avaya Aura Conferencing:** Offers an enterprise-grade conferencing suite for audio, video, and web-based communications.
- ✓ **Avaya Aura Messaging:** Gives you control of your instant messaging environment to manage texts, e-mails, voicemails, and instant messages in one easy-to-use format.
- ✓ **AvayaLive Engage:** Provides a fluid, immersive, real-time environment that features rich 3D graphics and audio.

Licensing Avaya Aura

Now that you know something about the Avaya Aura collaboration platform and its many applications, what is the best way to license this platform for use in the enterprise? The truth is that one size does not fit all. Avaya Aura Site Licensing lets your business support the unique needs of your users depending on their role and task at hand. Avaya identifies three user profiles, shown in Figure 6-1, that exist in nearly all enterprises for their licensing strategies. (See Chapter 4 for more about these user profiles.)

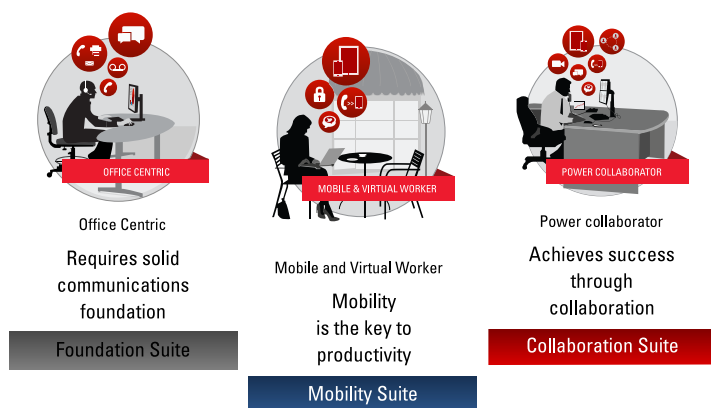


Figure 6-1: User profiles for Avaya Site Licensing.

- ✓ **Office-centric users:** The highly productive, task-based workers who tend to work in support roles located in a traditional brick-and-mortar office building. These employees depend on functionality such as name lookup, click-to-dial, instant messaging, presence, voicemail, and conferencing in order to perform their tasks efficiently.
- ✓ **Mobile and virtual workers:** The employees who work anytime from anywhere from multiple locations. These employees require real-time communications to stay productive. Mobile and virtual workers need such capabilities as single-number reachability, speech-enabled services, secure remote access, and ready access to content.

- ✓ **Power collaborators:** The workers who are successful by being able to collaborate with many different people effectively. These users need voice, video, conferencing, and content-sharing applications on an “always-on” network that works on many types of devices.

Avaya Aura Site Licensing has many benefits that make it simple to bring the Avaya Aura platform to an enterprise. Some of these benefits are

- ✓ **Mix-and-match licensing:** By selecting different licensing suites, you can meet the needs of the different types of users.
- ✓ **End-to-end solution:** Creating a complete collaboration environment is easy to do by selecting the right set of features to address the key business problems.
- ✓ **Lower total cost of ownership (TCO):** Purchasing licenses as a suite is less expensive than purchasing them “a la carte.” Because you can mix and match suite licenses, you don’t pay for features you don’t need.

Figure 6-2 shows you the features that come with Avaya Aura Site Licensing.

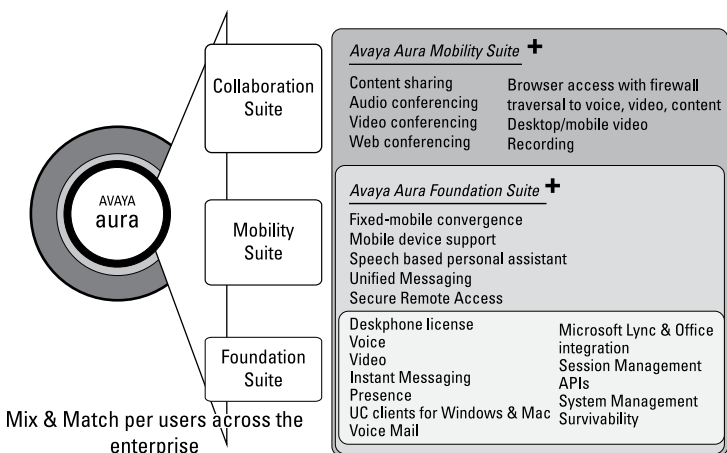


Figure 6-2: Avaya Aura Site Licensing at a glance.

The Foundation Suite provides the following capabilities and features:

- ✓ Core telephony, messaging, SIP-enabled core platform for adding collaboration to any enterprise
- ✓ Desktop clients for Windows and Mac
- ✓ High availability and communications continuity
- ✓ Smooth evolution paths from older Communication Manager and CS 1000 environments
- ✓ Ongoing support for all modes: SIP, H.323, digital, analog, DECT, wireless

The Mobility Suite is a complete messaging and secure mobility solution empowering remote, mobile, and traveling workers anytime, anywhere. The Mobility Suite comes with all the features in the Foundation Suite and adds the following:

- ✓ Single number access for voice, video, web, IM
- ✓ Mobile connectivity to key communications apps (extended office features for remote workers)
- ✓ Support for smartphones, iPads, and Bring Your Own Device (BYOD) strategies
- ✓ Secure remote access for client applications

The Collaboration Suite is an expanded collaboration experience enabling power collaborators with video and multi-modal conferencing. The Collaboration Suite includes all the Foundation and Mobility Suite capabilities and adds the following:

- ✓ Easily conducts multi-modal collaboration across IM, voice, video, and content sharing
- ✓ Scales to tens of thousands of users, leveraging the distributed media and SVC “video routing” architecture
- ✓ Desktop/Mobile video access that allows easy video-conferencing with people inside and outside the enterprise — customers, partners, and suppliers

Chapter 7

Ten Ways Mobility Will Move Your Business Forward



In This Chapter

- ▶ Reviewing Avaya's vision for transforming collaboration
- ▶ Discovering what makes Avaya's products different



This chapter talks about the ways that Avaya's mobility and collaboration platforms can help move your business forward.

Broad Mobile Device Support

People today use a vast array of brands and types of mobile devices, including tablets, smartphones, and notebook computers. These devices come in different shapes and sizes and operate on different platforms, such as Apple iOS, Android, and Windows, and present challenges to software vendors to create an outstanding user experience on each.

Avaya offers full video- and document-sharing capabilities on a broad range of devices customers use, including Windows, Mac, iPhone, iPad, and Android. Not only do Avaya's products support many kinds of devices, but they also support the different user profiles found in nearly all businesses — office task workers, mobile and virtual workers, and power collaborators.

Reach Across Business Types and Sizes

Smaller companies are, as a rule, more agile than large enterprises and, as a result, have embraced mobility at a much faster pace. The rapid pace in the growth of mobility is especially true for geographically dispersed companies with mobile workers and business partners.

Avaya's mobile solutions, such as Avaya IP Office, support a wide range of devices and platforms, enabling your business to connect with partners and to allow your workers their choice of device in the BYOD (Bring Your Own Device) age.

Single Platform for Unified Communications and Contact Center Applications

Avaya's platform links the enterprise by seamlessly supporting both Unified Communications (UC) and contact center (CC) applications so that enterprise users and contact center users can share data.

Avaya differentiates itself from its competitors in the enterprise and contact center in the following ways:

- ✓ **Proven enterprise voice:** Avaya is an industry-leader enterprise-telephony vendor and offers a feature-rich voice solution that supports a complete set of endpoints.
- ✓ **Complete video-conferencing capabilities:** Avaya provides end-to-end solutions for videoconferencing spanning from telepresence, conference room, mobile contact units, and desktop and mobile software applications. Avaya's video-conferencing solutions support up to 28 parties as well as multi-casting and server-side recording.
- ✓ **Outstanding bandwidth optimization:** Avaya's video-conferencing uses 69 percent less bandwidth than its major competitor's videoconferencing and 83 percent less than its second-greatest competitor's solution.

Full Suite of Collaboration Hardware and Software

Avaya's collaboration platform offers business flexibility in deployment options for all types of businesses.

- ✔ **Avaya's Foundation Suite:** Provides a rich, scalable enterprise-wide architecture for all types of communications and includes features such as core telephony and messaging applications as well as desktop clients that are a must for office-centric staff.
- ✔ **Avaya's Mobility Suite:** Offers a complete messaging and secure mobility solution allowing mobile and virtual workers to work anytime, anywhere. Mobility Suite supports smartphones, iPads, and BYOD strategies designed for the mobile and virtual employee.
- ✔ **Avaya's Collaboration Suite:** Includes an entire UC solution, enabling power collaborators with video and multi-modal conferencing. The Collaboration Suite scales to tens of thousands of users supporting the growth of the mobile workforce and devices.

Almost-Anywhere Access to Enterprise Communications

Avaya's products give mobile workers almost-anywhere access to enterprise collaboration.

Enterprise-grade mobility tools offer improved visibility, increased coverage, and more responsive collaboration among customers, partners, and employees. Avaya's enterprise-grade mobility tools outperform even the best consumer-grade tools. Corporate mobility features assure message prioritization, better information access, integration of business contacts with presence, and consolidated call logging.



Simply put, consumer-grade tools do not cut it when running a business — your business needs more powerful tools. On average, employees spend 21 to 37 percent of their workweek away from their desks. Studies show that always-available

collaboration increases productivity by 17 percent and reduces time to decision, dramatically impacting the bottom line.

Low TCO

Avaya's platform exhibits a low TCO compared to the competition driven by low up-front licensing costs and flexible site licensing. Avaya's licensing structure is designed to maximize the value of each of your users without locking in customers to features they don't want or need. Avaya also offers a rapid innovation cycle so that new features get to market quicker than the competition.

Avaya's platform makes it possible for businesses to take advantage of significant cost savings by leveraging VoIP for Wi-Fi and the corporate network for mobile device calls. Moving calls to the corporate network allows for least-cost routing advantage, which results in significant savings in international toll calls. Utilizing the Wi-Fi network for mobile calls, when possible, saves mobile phone plan minutes and possible usage-overage charges. Businesses can save roughly US\$1.9 million per year just by using the corporate network and Wi-Fi for mobile calls.

Avaya's platform gives businesses better management of features per user, meaning that only the features a user needs get installed. Limiting features provided to a user reduces training costs and allows for IT administration to better focus its support.

Security

Avaya takes a holistic view on security, meaning that security is embedded across the entire platform.

Avaya's platform consists of SBCs to provide secure remote access to the company's network without using a Virtual Private Network (VPN) and identity engines to authenticate users, and to prevent security breaches by malformed SIP data and Denial of Service (DoS) attacks.

In 2012, a Symantec survey indicated that 59 percent of employees use mobile devices for business applications, so security is of utmost importance. The Communications Fraud Control Association estimates annual telecom fraud losses to be US\$35–\$40 billion.

Open Integration

The Avaya platform is built on open (nonproprietary) industry standards so that it integrates seamlessly with third-party devices and software applications protecting your investment in existing communications infrastructure. Avaya's platform also supports integrating with cloud, social, and business applications to allow for context-aware collaboration. This openness allows you to integrate with the old while being ready for what comes next.

The Avaya DevConnect program works with more than 18,000 companies to develop customizations to the Avaya product suite to meet the unique requirements of all types of businesses.

High Availability and Scalability

In any business communications system, availability and scalability are of the utmost importance. Your system has to be operating 24/7 and able to run efficiently given the massive amount of data that travels from place to place around your network.

The Avaya Aura core platform offers industry-leading reliability and survivability (the ability to function properly in the presence of attacks or natural disasters). Integrating advanced Avaya networking switches, wireless networking, and unified branch and access control provides a complete UCC solution, meeting the needs for redundancy and efficiency. The Avaya Aura Core platform switches offer 20 milliseconds (ms) of recovery time compared to 100–800 ms for its competitors. Avaya's platform has proven scalability, tested on 250,000 endpoints.

Grow with Mobility Market

The mobility market is growing. Is your business doing what it takes to keep up?

The penetration of mobile workers and devices is increasing. According to Juniper Research, by the end of 2014, the current total of 150 million employee-owned devices in the enterprise will balloon to 350 million. In addition, International Data Corporation (IDC) said that the smartphone market would grow by 40 percent over 2012 and will ship 1.7 billion handsets by 2017! The Avaya Aura platform has the tools your business needs to scale up to this exploding market.

Notes



Handwriting practice lines consisting of 20 horizontal solid lines, arranged in pairs of 10 sets. Each set is separated by a larger gap, providing space for writing practice.

Notes



Handwriting practice lines consisting of 20 horizontal solid lines, arranged in pairs of 10 sets. Each set is separated by a larger gap, providing space for writing practice.

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Realize the full potential of mobile collaboration

Mobility is transforming the way employees perform their tasks and collaborate with their colleagues. Tablets, smartphones, and notebook computers allow staff to work anytime, anywhere. Mobility poses challenges to IT departments as the number and types of devices and business applications grow. Companies must juggle accessibility and security. New products and solutions can enable the best of both worlds!

- ***Tame mobile phone charges*** — *route mobile phone calls over the network and Wi-Fi when possible*
- ***Add mobility to a UC platform*** — *see how it transforms collaboration and makes your workers more productive*
- ***Leverage UC*** — *preserve investments in existing technology and add mobility to integrate with legacy systems*
- ***Find the right products*** — *be assured of selecting the right product or solution to meet your unique requirements*



Open the book and find:

- **How mobility is transforming where and how you work**
- **Why mobility adds many risks and challenges to organizations**
- **How to add mobility to your communications network to save money on wireless charges and help your employees collaborate more effectively**
- **Which products are right for your business**

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