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The new mobile mantra for business: Cost-effectively boost productivity and the bottom line with secure access to enterprise grade telephony and collaboration

Introduction

This white paper is designed to help you build a mobility business case based on tangible Avaya case study examples. The proliferation of mobile devices, along with an increasingly global and remote workforce, has created significant challenges and opportunities for enterprise employees, partners and customers. If the right mobile strategies are in place employees can work in virtually any location with around-the-clock access to corporate resources, enabling organizations to increase productivity, efficiency and their competitive edge. However, securing and controlling mobile enterprise expenses can also pose significant challenges as knowledge workers acquire and use multiple devices:

- Industry analyst Gartner predicts that by 2014 nearly 80% of mobile professionals will use at least two mobile devices to access corporate systems and data, up from 40% in 2013, making security a more critical issue¹.
- The Communications Fraud Control Association estimated that annual telecom fraud losses worldwide to be \$35-\$40 billion U.S. With 40% of employees identifying their mobile phone as one of their primary devices used for business communications².

Clearly, with such large and growing inventories of mobile devices, enterprises should be including security in their mobility strategies.

Then there's Bring Your Own Device (BYOD), which offers users the opportunity to use their preferred devices. On the surface it appears to lessen mobile expenses when employees pay for their own plans and devices. But, BYOD programs can be more costly and complex due to the intermingling of corporate and private data on mobile devices. According to the Aberdeen Group, a company with 1,000 BYOD mobile devices will spend an average of \$170,000 U.S. more per year than an organization with a centrally procured, corporate-liable policy for mobile devices; underscoring the value of deploying enterprise UC clients on devices that secure and separate personal and corporate data³.



How much could a missed call cost your business?

On average, **21%** of employees' workweeks are spent away from their primary work location and that number rises to **37%** for executives. **25%** of middle managers spent time away from their primary workspace⁴.

On the billing side even more issues arise. Although each BYOD device may be tied to a rate plan, calls may still generate steep service charges, depending on how and where the device is used. Significant billing overages, runaway long distance charges, and exorbitant domestic or international roaming fees are an everyday occurrence. So how can enterprises mitigate these costs and what technology solutions could help?

Mobile math: roaming, overages, and minute plans could cost millions

Most enterprise organizations today are playing defense when it comes to managing mobility costs. As a result, they are having trouble tracking, managing charges and securing mobile devices and that can cost them millions.

One firm recently did an audit of a networking infrastructure technology company and found that four phones in Saudi Arabia were accruing charges of more than \$12,000 U.S. a month. As is common, there was little transparency about who was using what device and where in the corporate network. This was not only a major security issue, it was coupled with concerns about how to determine the source, and control these charges for a mobile workforce.

How extensive has this problem become? If organizations supporting more than 1,000 connected mobile devices do not enforce cost management strategies and solutions, mobile communication costs can rise sharply, and so will the risks associated with device and data losses.

This white paper will highlight how costs have spiraled given the rising number of mobile users in the enterprise workplace; identify the key market trends and business challenges created by the complexities of a mobile workforce; outline options for cost containment; and showcase case studies and real world cost incentives for choosing solutions that can reduce mobile expenses.

Containing mobile costs: implementing mobile Unified Communications

Unified communications (UC) applications deliver a complete set of voice, data and video capabilities in a single integrated experience. The value proposition for businesses to deploy mobile UC is twofold: ensuring that mobile employees never miss a call and that they have secure anywhere access to enterprise grade telephony and UC capabilities – enabling more effective collaboration, while reducing costs.

In an Avaya Case Study, which was based on an enterprise scenario consisting of 15,000 employees, we analyzed 2,500 of its U.S. mobile users. The study illustrates several cost containment options that can potentially save organizations millions of dollars and how to realize payback deployment dollars in less than three months. While there may not be a single solution or universal behavior for mobile users, users need specific guidelines on how to work with

the devices and clients. User behavior matching the expected usage scenarios of solutions is key to success.

First, let's examine a typical breakdown in terms of minutes used by the 2,500 U.S. mobile employees in various roles. In this case study, the company mandated that employees use the corporate liable plan, versus individual plans, which pools unused and reused minutes across users.

	Corporate Liable Plan	# of Mobile Users
Low Usage Employee	< 400 Min.	823
Typical Employee User	450 Min. or 7.5 Hrs	420
Campus Roamers	900 Min or 15 hrs	306
Virtual & Field Workers	1350 Min or 22.5 hrs	259
Sales Workers	2000 Min or 33.3 hrs	520
International Warriors	4000 Min or 66.67 hrs	122
Executive Road Warriors	6000 Min or 100 hrs	50

Now let's look at a sample voice plan cost based on the above user breakdown and using carrier published tariff rates.

Avaya Case Study: What this enterprise pays today

Current Monthly Cost								
	US\$	Low Usage Employee	Typical Employee	Campus Roamers	Virtual & Field	Sales	Int'l Warriors	Exec. Warriors
		<400 mins, 2GB Data, 1000 text	450 mins, 2GB Data, 1000 text	900 mins, 2GB Data, 1000 text	1350 mins, 2GB Data, 1000 text	2000 mins, 2GB Data, 1000 text	4000 mins, 2GB Dom/ Intl Data, Unlmted text	6000 mins, 2GB Dom/ Intl Data, Unlmted text
1	Minutes	\$19.99	\$44.99	\$64.99	\$84.99	\$104.99	\$154.99	\$204.99
2	Data	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$104.99	\$104.99
3	Text (1000)	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$20.00	\$20.00
4	Intl Dialing	\$6.99	\$6.99	\$6.99	\$6.99	\$6.99	\$6.99	\$6.99
5	Avg Voice Overage*	\$49.65	\$143.29	\$53.18	\$51.67	\$17.06	\$43.24	\$28.38
6	Avg Roaming Charges	\$1.10	\$12.51	\$12.48	\$25.69	\$11.31	\$22.34	\$27.92
7	Subtotal	\$127.73	\$257.78	\$187.64	\$219.34	\$190.36	\$352.55	\$393.28
8	# Employees	823	420	306	259	520	122	50
9	Monthly cost	105,122	108,266	57,417	56,809	98,985	43,011	19,664
10	TOTAL Monthly Cost	\$489,274						
11	TOTAL Yearly Cost	\$5,871,289						

*Voice Overages include long distance costs and minutes used above plan

In this U.S. sampling of a 15,000-person enterprise with 2,500 mobile users, the base level monthly expense of \$489,274 is high, but the yearly cost at \$5,871,289 is staggering. Even with potential carrier discounts of 18% to 25%, this would be a large outlay.

If that same company could eliminate or reduce international charges, reduce voice overages by 80%, and eliminate roaming charges, what savings could be realized? By removing the \$6.99 long distance charges on line 4 of the chart above for all users, reducing the overage costs by 80%, voice overage charges in line 5 are then reduced and roaming charges are eliminated in line 6, the yearly cost drops by nearly 32% or \$1,875,434.

Scenario 1: What if this enterprise eliminated international dialing fees, reduced voice overages by 80%, and eliminated roaming charges? What could they save?

New Monthly Cost Using Avaya Mobility								
	(US\$)	Low Usage Employee <400, 2GB Data, 1000 text	Typical Employee 450 mins, 2GB Data, 1000 text	Campus Roamers 900 mins, 2GB Data, 1000 text	Virtual & Field 1350 mins, 2GB Data, 1000 text	Sales 2000 mins, 2GB Data, 1000 text	Int'l Warriors 4000 mins, 2GB Dom/ Intl Data, Unlmt text	Exec. Warriors 6000 mins, 2GB Dom/ Intl Data, Unlmt text
1	Minutes	\$19.99	\$44.99	\$64.99	\$84.99	\$104.99	\$154.99	\$204.99
2	Data	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$104.99	\$104.99
3	Text (1000)	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$20.00	\$20.00
4	Intl Dialing Eliminated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6.99	\$6.99
5	Avg Voice Overage*(20%)	\$9.93	\$28.66	\$10.64	\$10.33	\$3.41	\$8.65	\$5.68
6	Avg Roaming Charges Eliminated	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
7	Subtotal by Type	\$79.92	\$123.65	\$125.63	\$145.32	\$158.40	\$295.62	\$342.65
8	# Employees by Type	823	420	306	259	520	122	50
9	Monthly cost by Type	\$65,774	\$51,932	\$38,442	\$37,639	\$82,369	\$36,065	\$17,132
10	SUBTOTAL Monthly Cost	\$329,353						
11	Add'l PBX charges**	\$1,725						
12	TOTAL Monthly Cost	\$331,078						
	TOTAL Yearly Cost	\$3,972,937						
14	SUMMARY OF SAVINGS	32.33% \$1,898,352 per Year						

** When long distance calls are routed thru the PBX, additional PBX charges apply. In the U.S. case study, international calls routed via dedicated or switched PBX range between \$.022 and \$.064. The average PBX cost was calculated by summarizing one month's long distance minutes, which came to an average cost of \$.054.

In this scenario, if employees lowered cellular network usage overall would a lower level voice plan also cut costs? By lowering the voice plan of all employees except for the Low Usage Employee let's look at what happens. In line 1, the Typical Employee's voice plan is now \$19.99, the Campus Roamers is \$44.99, Virtual Worker is \$64.99, Sales is \$84.99, International Warrior is \$104.99 and the Executive Warrior is at \$154.99. Without changing any other line item, as you can see in line 12, the yearly cost would drop again by an impressive 8.59% or \$504,240.

Scenario 2: What if this enterprise lowered employee voice plans by one level? What could they save?

New Monthly Cost Using Avaya Mobility								
	US\$	Low Usage Employee	Typical Employee	Campus Roamers	Virtual & Field	Sales	Int'l Warriors	Exec. Warriors
		<400 mins, 2GB Data, 1000 text*	<400 mins, 2GB Data, 1000 text	450 mins, 2GB Data, 1000 text	900 mins, 2GB Data, 1000 text	1350 mins, 2GB Data, 1000 text	2000 mins, 2GB Dom/ Intl Data, Unlmted text	4000 mins, 2GB Dom/ Intl Data, Unlmted text
1	Minutes	\$19.99	\$19.99	\$44.99	\$64.99	\$84.99	\$104.99	\$154.99
2	Data	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$104.99	\$104.99
3	Text (1000)	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$20.00
4	Intl Dialing	\$6.99	\$6.99	\$6.99	\$6.99	\$6.99	\$6.99	\$6.99
5	Average Voice Overage	\$49.65	\$143.29	\$53.18	\$51.67	\$17.06	\$43.24	\$28.38
6	Avg Roaming Charges	\$1.10	\$12.51	\$12.48	\$25.69	\$11.31	\$22.34	\$27.92
7	Subtotal	\$127.73	\$232.78	\$167.64	\$199.34	\$170.36	\$292.55	\$343.28
8	# Employees	823	420	306	259	520	122	50
9	Monthly cost	\$105,122	\$97,766	\$51,297	\$51,629	\$88,585	\$35,691	\$17,164
10	TOTAL Monthly Cost	\$447,254						
11	TOTAL Yearly Cost	5,367,049						
12	SUMMARY OF SAVINGS	8.59% \$504,240 per year						

* < 400 minute plans are the lowest plan available

Avaya has offices located in Asia Pacific, Latin America, Middle East, Eastern and Western Europe. In regions outside of North America, a significant



percentage of mobile expenses are incurred by long distance and roaming charges. Long distance charges apply when a mobile user makes a call to another country and roaming costs apply when a mobile user is traveling to another country and makes a cellular call.

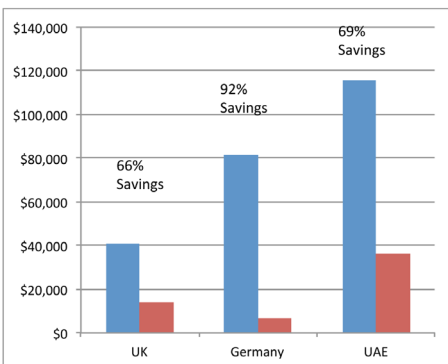
Because of the varying voice plans by country, we'll analyze three countries. These three countries represent only a percentage of the total EMEA (European region) mobile user population.

The average per user long distance charges by country is the following:

Annual Long Distance Costs per User by Country			
Country	Cost Today	# of Users*	Per User
United Kingdom (UK)	\$41,197	450	\$91.55
Germany	\$81,386	670*	\$121.47
United Arab Emirates (UAE)	\$116,007	70	\$1,657.24

* Adjusted this number to reflect 400 back office employee users

Using Avaya Mobility to route long distance calls through the enterprise communication system, how much could be saved? The savings are 65%, 92% to 69% respectively or a total of \$181,257 annual savings for just the three countries alone in this region.



Scenario 3: What if this enterprise routed long distance cellular calls through their communications system? What could be saved?

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	

Note: Cost using Avaya Mobility took into consideration the additional costs incurred if long distance calls were routed to the company's PBX. PBX calls were on average 80% less than the other methods of long distance calling.

Similarly, we looked at reducing roaming charges. Roaming charges are incurred when mobile users make calls outside of their host country. In Germany, the U.K. and the UAE region, the savings are equally remarkable.

There are two ways organizations can save on roaming charges:

- 1) By utilizing the Wi-Fi when available

Did you know?

Avaya Mobility solutions can enable your workforce to always respond to customers:

- Single number reach lets employees publish one number. They control where this number rings so they never miss a call.
- Simultaneous ring directs calls to your employees wherever they are by ringing up to five devices such as a smartphone, desk phone, soft client on laptop and home phone.
- Single Voice Mail sends unanswered calls to corporate voice mail instead of stranding messages outside the enterprise; and visual voice mail can help your workforce prioritize and speed through messages in a format similar to e-mail.
- Consolidated 24/7 logs help businesses keep records of all inbound and outbound call history – even if callers don't leave a message.

2) Using local SIM cards plus Avaya Mobility solutions to manage the multiple phone numbers

In this scenario, we assumed that mobile users avoided **outbound** roaming charges by using the Wi-Fi option.

We applied a 40% roaming charge reduction based on studies that show users have intermittent or regular access to Wi-Fi.

Scenario 4: What if this enterprise used Wi-Fi to make cellular calls to avoid roaming charges? What could be saved?

Analysis shows that on average 46% of all roaming charges are outbound calls. In countries where inbound or outbound costs were indistinguishable, 46% was applied. We then applied a potential 40% outbound roaming usage reduction for users with access to Wi-Fi networks. Additional savings are possible by lowering voice plans per user.

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	

Putting Avaya Mobility Solutions to Test: Lowering Costs, Increasing Value

Avaya Mobility solutions help enterprises maintain business continuity and lower expenses by delivering a consistent set of easy-to-deploy applications and services to users through a consolidated server. The extension of business communications to mobile devices helps ensure that employees can be accessible and productive while on the move, improving business collaboration and customer care.

Avaya Mobile clients provide numerous ways to help reduce mobile expenses.

- Transfer mobile calls to landlines: Avaya Mobility solutions enable organizations to pre-configure common numbers and/or devices (e.g., temporary work space, hotel number, etc.) enabling mobile calls to be pushed to a “free” landline.
- Eliminate global outbound roaming charges: While traveling globally, outbound roaming charges (which are higher than inbound) can quickly add up. Your Avaya mobile client can solve the problem by sending a data signal to the enterprise network that effectively converts outbound mobile calling to inbound.

Take advantage of Wi-Fi: 40-60% of cellular calls are made and received while the user is in the office and within range of the Wi-Fi network⁵. A variety of options can be employed to make calls via available Wi-Fi networks.

- Move all call control, notifications, IM/Presence, directory search and other data traffic to Wi-Fi and leverage economical Internet VoIP services.
- Dual users make “free” calls over Wi-Fi by handing the call over to cellular when Wi-Fi is out of range – giving your workforce the flexibility to move from offices, airports and cars.
- Least-cost routing: Continue to make calls via a mobile plan, but have calls (especially international calls) routed from the carrier’s network to your enterprise network and take advantage of least-cost routing.

Use of built-in features within Avaya Mobility clients can reduce cellular usage and may allow cost savings with a less expensive service tier. Additional savings can be accomplished by:

- Eliminating charges for cellular voice mail or cellular visual voice mail
- Using centralized call detail records to distinguish between enterprise calls and personal calls on mobile billing

Reduced mobility expenses aren’t the only benefits

We’ve established that mobile expenses can be significantly reduced with Avaya Mobility solutions, but there are many other business benefits.

More secure communications

Gartner Group predicts that 80% of key business processes will involve the exchange of real-time information involving mobile workers⁶.

With Avaya Mobility solutions, mobile communications can be secure and private data is protected. These solutions also enable IT to protect the enterprise brand and employee privacy with a PBX business number displayed for outbound calls. Users can dial outbound calls through the enterprise network for business or directly for personal calls.

Collaborating via video

With the increase in mobility and business flexibility, more teams are geographically dispersed. Does this mean that teams are meeting and collaborating less because they are not congregating in conference rooms and around the water cooler? According to meeting experts, PGI, we’re actually meeting more⁷.

The reduction of business travel and associated costs and the ability to meet and interact in real-time with customers, business partners and employees located in other states or countries are just a few of the business and financial benefits.

Avaya offers high-performance, highly mobile video that connects teams in real time, on virtually any network or device. With an open collaboration platform, video is incredibly easy to deploy, integrate and use. A single click is all it takes to connect face-to-face, share documents and collaborate more effectively.

Roaming charges for some enterprises can sometimes represent a larger cost than their global wide-area network bill. According to feedback from Gartner clients, some companies are struggling with annual bills upward of \$20.4 million (€15 million) just for roaming alone⁸.

Summary

In an enterprise, with potentially thousands of mobile users, unchecked mobile expenses can become a major financial challenge. Enterprises that choose to implement Avaya Mobility solutions can minimize the risk of skyrocketing corporate-level roaming bills and voice plan minute overages.

Avaya Mobility solutions can help reduce roaming and other mobile expenses, while securely extending rich UC capabilities to mobile employees using our open collaboration platform that supports a comprehensive set of devices, enables easy deployment and simple management.

The return on investment to deploy an Avaya Mobility solutions can be realized rapidly. As illustrated below, payback in an average enterprise scenario can occur in less than three months during the first year. In this payback calculation, we applied the Avaya Mobility one-time User License fee of \$100 for 2,500 licenses for a total of \$250,000. We then calculated the yearly recurring costs, maintenance, support for 2,500 licenses, and the approximate \$40,000 salary of one part-time technical employee to support the solution. Back in Scenario 1, we saw the monthly cost reduced to \$331,078 from the initial cost of \$489,274. This equates to \$158,196 savings per month. With the cost of mobility deployment of \$315,000, the enterprise could realize payback in less than three months the first year.

Avaya Mobility Solutions Payback Calculation		
Cost of Deploying Avaya Mobility Solutions		
One-time costs	Mobility License Cost/per user**	\$100
	Number of Employees	2,500
Subtotal		\$250,000
Yearly Recurring costs		
	Maintenance & Support*	\$10
	Number of Employees	2,500
	Subtotal	\$25,000
	Staff to support*	\$40,000
Subtotal		\$65,000
TOTAL for year 1		\$315,000
TOTAL for year 2		\$65,000
Payback in Less than 3 Months in Year 1		
• Estimates		

** Calculated license cost is for users upgrading from Foundation Licenses. See Avaya Mobility licensing for more details.



The scenarios in this white paper have demonstrated that an enterprise could realize millions of dollars in potential savings.

By deploying UC Mobility:

- The Avaya case study, based on 2,500 mobile U.S. users, demonstrates a potential reduction of **32% or (\$1,898,352)** in annual mobile charges and/or by lowering voice plans, a potential reduction in mobile spending of **8.9% or (\$504,240)**.
- The Avaya case study's sampling of European based mobile users showed a potential savings of **70%** in long distance charges and at least **40%** reduction in roaming charges.
- Users could see payback to deploy Avaya Mobility Solutions in less than **three months**.

Footnotes:

1. Gartner: Seven Steps to Planning and Developing a Superior Mobile Device Policy by John Girard, October 5, 2011
2. CFCA: Global Communications Fraud Control Association Survey, October 4, 2011
3. IBM Global Technology: Developing more effective mobile enterprise programs, 2012
4. Yankee Group: Latest Enterprise Mobility Survey: based on findings from Yankee Group's Anywhere Enterprise: 2010 U.S. Enterprise Mobility/Empowered Employee Survey, Wave 1-2
5. T-Mobile White Paper: Wi-Fi Calling for the Enterprise, May 2012
6. Gartner Group: Best Practices for Securing Remote and Mobile Devices, 2013
7. PGI.com: 5 Ways to Use Video Conferencing Apps to Boost Productivity, March 5, 2013
8. Gartner: Reducing Costs for Global Mobile Voice and Data Roaming, Published: March 14, 2013

About Avaya

Avaya is a global provider of business collaboration and communications solutions, providing unified communications, contact centers, networking and related services to companies of all sizes around the world. For more information please visit www.avaya.com.



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