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WHITE PAPER

Recognizing the Optimization of a Mobile Operator's Customer Care Organization Through the Deployment of Mobile Device Management

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IDC OPINION

The proliferation of mobile devices across the globe (IDC expects more than 1.2 billion mobile phones to be shipped in 2008) and the growing complexity of such devices — including improved processing power, enhanced storage capacity, and the ability to support a growing number of applications and services — put a tremendous strain on mobile operators seeking to support their customer bases. Along with an escalation in device complexity is an increasingly demanding user population. As the mobile environment evolves into a more mature market, users regard both the devices and the services as utilities. With lowered tolerance for service interruption or hardware issues, building competitive differentiation in such a highly commoditized market based on customer service is challenging. Such demands are putting strains on mobile operator customer care organizations to service their subscriber bases. Key pain points within mobile operator customer care organizations are as follows:

- **The growing number of smartphone users is placing stress on mobile operator customer care organizations.** Application configuration including email and media is increasingly challenging. This issue is compounded when users leverage the same devices for work and for personal use and have no support from IT.
- **The learning curve for new applications is increasing.** Operators are looking to simplify the user experience and ensure a successful out-of-the-box experience. It is critical for operators to deliver a transparent experience that extends from the device to the use of additional applications. Delivering efficient steps to deploy the device, navigate the OS, and run new applications through the assistance of wizards and other self-help mechanisms can help guide the user through deployment and troubleshooting if required. This capability can, and may, be delivered via mobile device management (MDM) at the operator.
- **Many customer service representative (CSR) systems are still multisiloed.** A single CSR may not have access to the necessary information to troubleshoot a problem. One goal of the mobile operator is to push this capability into the lower tiers and allow for more automated tools to the lower-tiered CSR. This empowers CSRs to get at key troubleshooting issues and expands their value in solving customer user issues.

Combined, these pain points result in greater customer care expenses, decreased service adoption, greater device return costs, and ultimately, lowered customer satisfaction.

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IN THIS WHITE PAPER

In this White Paper, IDC analyzes how mobile operator customer care organizations face unique challenges in servicing their subscriber bases. IDC identifies some of the key chokepoints that mobile operators face within their customer care organizations and discusses how key components within the MDM market, such as configuration and diagnostics, end-to-end security, and software management, deliver business value to customer service professionals within a mobile operator organization.

SITUATION OVERVIEW

The Customer Care Evolution: Customer Experience Management

Advances in the adaptation of technology to the call center have provided efficiencies in call handling and the ability to provide the CSR with the identity of the caller and the nature of the call. However, there is another evolution in progress, that of bringing technology and business rules and processes together to better manage the customer's experience.

In today's contact center, the CSR has the ability to handle most multimedia inputs from customers; however, in most customer support contact centers, the predominant media is voice. Through use of an interactive voice recognition system (IVR), the CSR is presented with the positive identification of the customer and the nature of his or her problem or inquiry. For many organizations, the evolution on the technology side has been long and at times painful, but the requirement to service customers at an ever faster rate and in a more knowledgeable way cannot be ignored.

For customer support centers that support technical products, the strain of providing concise and understandable resolutions to an ever complex array of questions and problems has been significant. For many of these organizations, the technology support side of customer care has been a cobbled collection of disparate applications that are linked together mostly through human input. The more sophisticated the product or service being supported, the greater the challenge; and when the customers' problems are not addressed in an accurate and timely manner, the customers are left not only disappointed but also unsatisfied and increasingly disloyal.

While the customer support organization recognizes the importance of managing the customer experience with each and every interaction, doing so can create a huge challenge. Providing databases of information and sophisticated search functions to the CSR is an excellent approach; however, with complex products and multifaceted problems, just understanding the problem to be able to create a good search of the databases is sometimes more of the challenge. There is little doubt that the goal of the support center is to provide a high level of satisfaction to each customer contact, but the reality is that this is not always the case.

In most wireless carrier customer contact centers supporting technical and highly complex products, and still struggling to implement the necessary tools and infrastructure, the customer call is almost always presented to a tier 2 CSR. This escalation is much more costly to organizations and erodes whatever limited product margins they may have gained from the sale of the product or service, and the resolution may not be any easier to provide. If organizations do not have the right tools to accurately identify customers' pain, then escalating to a higher tier within the contact center will not necessarily satisfy the customers.

Customers deserve a quality product and timely resolution to inquiries in exchange for their money. In today's world, there is more to interaction, a je ne sais quoi that causes a customer to stay with one supplier over another when the products or services are functionally (or perceived as) equivalent. In highly commoditized markets, the only way to compete is on differentiated customer service.

Technology plays a critical role in enabling this new approach. Without an integrated application environment, the data cannot be collected, assimilated, analyzed, and leveraged as part of the execution of the business process to relate to customers' specific needs in a timely and accurate manner.

Customer Care Imperative in Telecommunications

The competitive world of technology-based products creates an endemic problem of high service requirements but is an environment in which "customer experience management" can help differentiate competitors from one another. Mobile devices, in particular, while considered consumer devices, are a complex combination of technologies. Hardware and software coupled with telecommunications capabilities create an environment of ongoing upgrades and support requirements. In markets dominated by rapid technical evolution, such as the mobile device market, individual product life spans are 12 to 18 months, and margins can be easily eroded by service or support calls to a CSR. Even a low-touch interaction volume with one customer segment regarding one device is enough to negate any profits gained. While the drive toward e-service through FAQs and online knowledge bases can reduce support costs in many industries, it is only one piece of the service puzzle for device management. These techniques rely on "pull" from the customer and are restricted to customer serviceable issues. Additionally, customers must know that there is a problem in order to seek a resolution. For some customers, the frustration of the problem, and the seeming dilemma of how to fix the problem, is a hurdle they may not choose to address; instead, they may prefer to simply change vendors or start over with a newer and "easier" device. Even if the customer stays with the same vendor but chooses another device, the cost to the vendor will be significant.

In the telecommunications environment, customer service demands challenge not only profitability but also, more importantly, customer satisfaction.

Consider the problems the wireless carriers face trying to manage the customer experience. Faced with literally hundreds of different devices in use, each new device with increased functionality and applications, all levels of customer technical acuity, and the overlay complexities of the network, the CSR is expected to identify the root cause of a problem and apply a remedy in an interaction of less than three to five minutes. This is an overwhelming challenge for all levels of customer support, even with an up-to-date knowledge base and an effective search engine. In most cases, the result will be less than satisfactory for the customer.

By any measure, customer satisfaction is an elusive concept with an unguaranteed upside. Conversely, customer dissatisfaction almost always has a guaranteed downside. Unhappy customers vote not only with their feet but also with their dollars and their freely given opinions. In the digital age, customers have unprecedented forums in which to express and disseminate their dissatisfaction. Blogs and social networks can create a center of gravity around bad press, which once started can be nearly impossible to reverse. The free market has the power to effectively kill a product.

Turning the Tables

In a commodity market fraught with potential technical support issues, how does one deliver customer experience management for competitive differentiation? Proactive service solutions can move customer service from a focus on first call resolution to "no call resolution." If the customer reaches a CSR in the service center to ask the first question, profits are already being lost. Getting out in front of the issue when possible not only forestalls the call to the call center or the self-service portal but also keeps customers from even experiencing the dissonance and stress that come with products that are not operating to their expectations.

An interesting upside to the technology products market is that due to some of the very reasons that contribute to possible large-scale service issues — that is, everyone has the same product, and therefore everyone will have the same problem — there is the potential for economies of scale service savings. Effective analytic tools and proper diagnostic abilities enable known problems in devices, whether hardware or software, to be addressed on a mass scale, hopefully before the user community is even aware of the issue. The proactive servicing of devices through remote diagnostics and software and policy management can remove the majority of a user's device issues. This alone will keep thousands of customers from contacting the call center with the same problem. The deployment of Firmware Over the Air (FOTA) solutions is one way for mobile operators to deliver such proactive solutions. FOTA delivers updates to a mobile device's firmware, over the air and transparent to the user, allowing for large-scale upgrades across device types. Such upgrades are tremendous cost-saving and "face-saving" measures for the mobile operator and will help prevent massive device returns and widespread customer dissatisfaction.

Using available technology solutions, when a customer does call the help desk, the CSR will know the specifics of the device, the known problems, and the prescribed resolution, without having to query the customer. Given that a high percentage of the calls to the customer support center involve device configuration issues, with today's

tools, the CSR can reach out to the device, see the problem, and apply the fix immediately. Consequently, when the CSR does interact with the customer, he or she has already determined the root cause of the problem and has applied the best resolution for the problem. Now the customer interaction experience can be satisfying for the customer and gratifying for the CSR.

Making Everybody Happy

The elements that make up customer experience management vary greatly between markets. Managing the customer experience is a challenging task for a wireless carrier, but with today's MDM tools, the goal of consistent high-quality customer satisfaction and loyalty is readily achievable.

When a customer calls for assistance and reaches a CSR at the wireless carrier's contact center, the CSR is faced with the following:

- A customer who has already spent a significant amount of time trying to fix the problem or configure an application
- A customer who may feel the carrier is at fault for the mobile device problems
- A customer whose technical skills vary widely and who may not understand the menus of the user interface, who may not understand some or all of the technical jargon of the mobile device, and who has little to no experience with the application environment, *or* who understands the device better than the CSR but has compounded the original problem
- The type and model of the mobile device may be unknown to the customer
- Pressure from the CSR's supervisor to reduce or minimize the time spent with a customer, even though the tools given to the CSR to help the customer are too complex and the CSR has not been properly trained on how to use them, or the tools are simply not available
- Knowledge that the CSR is being monitored and measured on customer satisfaction levels

At best, this is a very difficult situation for that CSR, who truly wants to satisfy the customer and whose compensation is partly based on the customer being satisfied. It may be an equally difficult situation for the customer, who most likely will not be satisfied and will have one more reason when considering abandoning a carrier (not necessarily the mobile device).

However, with the functionality of MDM solutions, this scenario can be a satisfying experience for the customer, a gratifying task for the CSR, and a cost reduction measure for the organization. Consequently, IDC deems a highly functional MDM solution a critical component of any carrier's service strategy.

Customer Care Key Value Proposition of MDM

Today, there are many pain points for mobile operator customer care professionals in dealing with their large subscriber bases. Unfortunately, for most mobile operators, many of the processes to support their customers are still manual. Customers seeking assistance are often unsatisfied using the self-service portal and are challenged in just reaching a CSR or reaching the right CSR. Much of this process is slow, challenging, and often frustrating for the subscriber. Once the customer does reach a CSR, that CSR may not be able to address the customer's problem; consequently, escalation is typically required to get at a customer's device or configuration problem.

Once the appropriate CSR is made available to the customer, a runner often must obtain a physical phone (same model as the subscriber) for the CSR, who then must guide the subscriber through a manual process. Frustration can ensue from a technical or cultural perspective. The end user may not be too savvy, or a language barrier may cause additional challenges. Such complications extend support calls and add additional aggravations to both support representative and customer. In the end, a CSR faced with dozens of phone configurations and armed with manual processes will fix the problem, but at the high cost of time and, more important, degraded customer satisfaction.

Through automated processes, MDM eliminates many of these challenges and at the same time reduces costs. Proactive firmware and application updates address some of these initial issues, and device identification allows a CSR to read from and push configurations to the mobile device. This allows the CSR to avoid time-consuming scrolling through menus and eliminates the need for the CSR to manually find the necessary device setting from the phone itself. For the customer, automated updates and diagnostics provide preventative measures that may avoid calls in the first place. Self-care options via on-device wizards and self-service portals connected to MDM, better-positioned CSRs who can address lower-tiered issues and actually resolve customer problems, and shorter calls are all part of the benefits provided by MDM solutions. For the operator, this capability greatly reduces a major cost of doing business — the number of devices sent back to the operator with hardware or software problems that could not be resolved by the CSR but are later found to have no defect.

The following feature sets further detail the key elements of MDM to drive enhanced functionality to the mobile operator, reduce costs, and enable better customer care:

- **Firmware Over the Air.** FOTA solutions allow mobile operators to deliver updates to a mobile device's firmware over a wireless network. FOTA updates allow mobile operators to replace all or parts of a mobile device's firmware, down to specific device levels. The use of FOTA updates provides a proactive tool for customer care organizations, reducing the onslaught of customer support calls for defective firmware or to address required updates.

- **Configurations and diagnostics.** The ability to read device configurations without depending upon the subscriber to supply them, combined with the opportunity to manipulate those configurations, delivers important capabilities to the CSR. It affords the CSR the power to quickly and effectively administer the device in much the same way that an enterprise IT desktop administrator would remotely administer a PC. Diagnostics capabilities provide insight into the condition of the mobile device. On a wider scale, combined with analytics, diagnostics can help identify potential issues with particular device models as well as with the network itself. Should a problem be identified, the network operator can proactively address such issues and may even be able to repair them before they are reported by subscribers.

- **End-to-end security.** Security allows mobile operators to provide device protection in the event that a device is lost, stolen, or otherwise accessed without authorization. Device lockdown and wipe are core components for consumers delivered by a mobile operator. Enterprise-centric security includes backup and restore, VPN encryption, authentication, and authorization. Device wipe and lockdown are critical components in an end-to-end enterprise security solution. Many of these features are valuable to the customer care professional as customers often have concerns about unauthorized use if a device is lost or stolen or permanent loss of vital personal data, photographs, or other information. As mobile devices continue to add more memory and increased downloading of larger and more complex applications, having tools to address customer security concerns is a growing need for mobile operators and their customer service representatives responding to distressed end users. As both authentication and authorization, single sign-on capability, for example, provides an important tool for customers with the potential of lowering the need for customer care calls needed to reset multiple passwords.

- **Software management.** Software management refers to the ability of a mobile operator to manage an enterprise's life cycle of applications and services on its employees' mobile devices. Software management enables the mobile operator to deliver a number of services to the enterprise customer, such as remote management of the delivery, installation, update, activation or deactivation, and removal of software on the mobile device. Since application management can be complex and often generate a tremendous amount of activity to the customer service center, an automated and managed approach to the delivery of applications and services eases the call volume for the deployment of such offerings. With a wide array of applications and services being delivered, a mobile operator will benefit by offering its enterprise customer a managed software approach in order to lighten the burden of enterprise customer care staff members who typically access multiple systems and are inundated with a tremendous volume of information while servicing the customer base.

MDM MARKET OVERVIEW

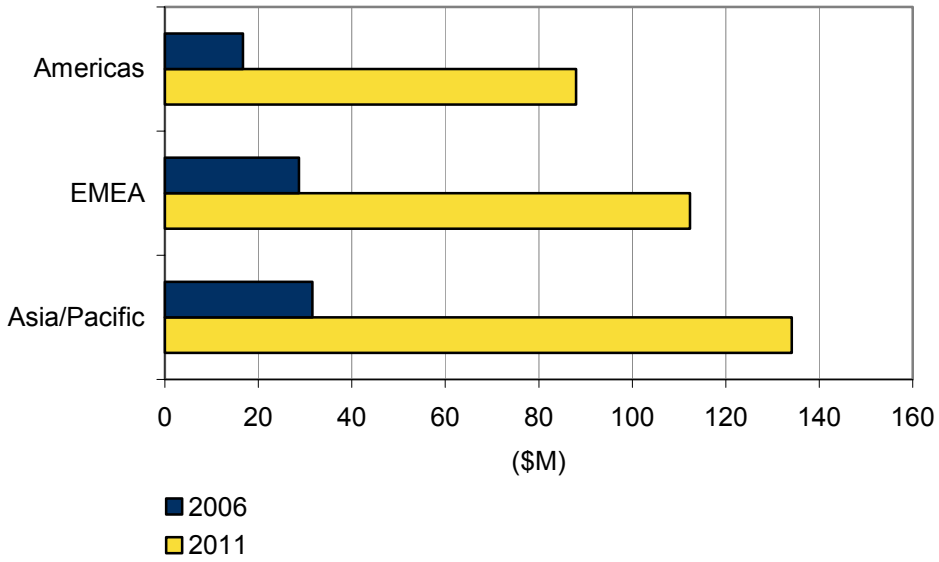
Trends in MDM Market Growth

IDC expects worldwide revenue in the nascent mobile device management – mobile operator and device manufacturer centric (MDM–MODM) market to increase at a compound annual growth rate (CAGR) of 34.2% to $334.4 million by 2011. Mobile operators continue to evaluate and deploy FOTA and other components of MDM; however, it is critical for the mobile operators to recognize the enhanced value of MDM. Leveraging such core components as configuration and diagnostics, as well as end-to-end security, software management, and policy management, drives enhanced business processes across mobile operators' customer care organizations, realizing cost savings and worker productivity and improving organizational efficiency. Customer care optimization represents an important driver of MDM adoption and a key tipping point for mobile operators to recognize additional value beyond the core justification of the deployment of MDM.

From a regional perspective, the Americas represent the largest growth opportunity, with a nearly 40% CAGR; however, EMEA and Asia/Pacific also offer strong growth markets in this emerging space, with CAGRs of more than 30% through 2011. Revenue for 2006 and 2011 is shown in Figure 1.

FIGURE 1

Worldwide Mobile Device Management – Mobile Operator and Device Manufacturer Centric Market Revenue by Region, 2006 and 2011



Source: IDC, June 2007

CONCLUSION

In a market where the life cycle of a mobile device is 12 to 18 months, and where functionality is increasing by factors with each new device, it is hard to imagine mobile operators not wanting to seek robust MDM solutions to equip their customer support operations. Mobile operators find themselves burdened with complexities stemming from the growth in number and types of smartphones and the robust applications that are increasingly deployed on them. Such new applications are a challenge as well for users to properly set up and for mobile operators to efficiently support and update. Lastly, many lower-tiered CSRs are overrun by multisiloed systems and are not able to properly access the necessary information to troubleshoot a customer's problem.

However, while the initial justification for mobile operators might be to control configurations and diagnostics, end-to-end security, and software management across the sea of devices in their networks, the biggest benefit will be to improve customer satisfaction and thus increase customer loyalty. The operators will reduce costs, increase CSR productivity, and improve organizational efficiency, in and of themselves providing excellent returns. However, the optimization of the quality of customer care and the resulting increased loyalty will be the overriding benefits to an MDM solution deployment.