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The Rising Tide of Enterprise Mobility in Asia/Pacific: Towards a Holistic Approach

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Enterprise mobility adoption has remained largely immune to the recent disruptions such as the global economic crisis and the H1N1 outbreak. This implies that the technology is moving into the realm of essential ICT spending for many enterprises. Enterprise mobility technology is becoming relevant in a large number of real-world business use cases. It is emerging as sound horizontal and verticals solutions on the back of strong industry innovations in wireless technologies, data capture technologies, mobile middleware and devices.

The following questions were posed by Motorola on behalf of its customers to IDC.

Q1. What is enterprise mobility?

A. Enterprise mobility is about mobilizing the business organization. It involves the provisioning of tools, resources, and processes by the organization to allow its employees to effectively perform their tasks while on the road or away from their workstations. Typically, this involves an extension of business applications/solutions through the use of portable and mobile devices.

Enterprise mobility is also mobilizing the organization within and beyond its four walls, integrating business critical processes in a seamless and transparent manner over a manageable platform so that information is available to decision makers in near real time, anywhere over devices. Resource optimization, real-time and more effective decision making as well as process optimization can be achieved to gain cost and competitive advantages.

The industry has witnessed the uptake of enterprise mobility in successive waves. The first wave of enterprise mobility technology adoption was centred around mobilizing basic messaging applications such as email. The second wave of enterprise mobility applications adoption was largely characterized by mobile enabling horizontal applications such as sales force automation or field force automation.

The industry is now rapidly moving towards the third wave of adoption, which is focused on mobilization of core processes of the enterprise. This necessitates a higher level of commitment from technology providers. However, the industry wide standardization and maturing of mobile computing, data capture and wireless access technologies means that enterprises need to be relatively less concerned about the underlying technologies and are able to focus on mobile enablement of their mission critical applications. The third wave enterprise mobility solutions have a holistic approach towards mobility, leveraging a range of devices with form factors, functionalities, wireless radio and applications suited to the workforce type. The third wave is also seeing a convergence of Auto-Identification

and Data Capture, GPS/RTLS, WLAN and WWAN technologies as well as enterprise applications to offer end-to-end solutions for a truly real-time enterprise.

Q2. What are the key industries currently using enterprise mobility?

- A. IDC sees an increasing number of industry verticals deploying enterprise mobility. These include manufacturing, warehousing/wholesale, retail, healthcare, hospitality, logistics and transportation, government, and utility industry verticals. The manufacturing, warehousing/wholesale and retail industries typically implement mobility solutions for mobile on-location workers who track moving goods. Manufacturing and warehousing/wholesale industries use solutions such as asset management and asset tracking solutions, whereas the retail industry vertical employs solutions such as RFID retail, mobile payment, personal shopping experience and point of sale. On the other hand, logistics and transportation industry verticals have mobile field workers and tend to use a variety of solutions such as route efficiency/dynamic routing and Proof of Delivery (PoD).

In ASEAN and China, government and public safety agencies as well as utility companies are also adopting enterprise mobility solutions for inspections, readings, and asset and inventory management. Law enforcement and efficient public service are the key motivations for government agencies to implement such solutions. Australia is seeing traction in enterprise mobility adoption in the healthcare industry. Globally, healthcare is dealing with a number of challenges including soaring costs of medication, critical opportunity cost of medical errors, and public demand for quality healthcare. Despite the economic downturn, the healthcare industry continues to see spending on VoWLAN (Voice over WLAN) and nurse applications such as patient rounds and medication administration.

Q3. How are enterprises deploying enterprise mobility?

- A. Mobility solutions are evolving to become relevant in many business critical functions. By adopting mobility, enterprises want to remove human latency and error from the processes. IDC notes a mix of horizontal and vertical mobile solutions being deployed in the region to accelerate the supply chain from production to sales and post sales support.

Horizontal solutions include mobile office solutions, field force automation and sales force automation. Multinational corporations are providing mobile email to their white collar employees in this region. There is also a significant growth in the adoption of mobile field force automation, while mobile sales force automation is catching up in industries with a massive deployment for sales force. Enterprises tend to leverage ubiquitous cellular networks for mobile field force automation, fleet management and DSD route accounting, while they use data capture technologies, mobile radios and WLAN for mobile solutions targeted at mobile on-location workers. Furthermore, the industry is witnessing a greater appetite among enterprises for industry vertical mobility solutions.

Enterprises deploy a variety of mobile devices to support their mobility applications. Depending on the nature of the task and the physical environment, enterprises choose best fit devices. Transportation and logistics task workers deploy larger form factor rugged devices needed in an outdoor environment, warehouse workers use single ruggedized devices for multiple functions, and healthcare workers prefer smaller form factor, durable and sealed devices that are easily exposed to liquids because frequent sanitization wipe downs are performed throughout the day.

Q4. How can organizations leverage enterprise mobility to maximize operational efficiencies and gain a competitive advantage?

- A. Today, enterprises see their ability to differentiate themselves from competition by using enterprise mobility. Hence, they want the mobility solution to deliver on their unique business needs. Enterprises increasingly prefer not to buy mobile equipment and

applications from catalogue resellers, but instead seek advisory services and solutions tailored for work processes specific to their organization. For instance, an asset tracking solution must be designed to not just meet the needs of defence departments in general, but also to align with unique processes of the Department of Defence in Australia. Driving process efficiency and cost optimization are the key reasons for adopting such solutions.

Enterprises empower their mobile office workers with appropriate tools for rapid decision making, faster turnaround, flexibility and improved productivity. Furthermore, they equip their field force with the right tools to efficiently perform repair, maintenance, delivery, reading and inspection jobs.

The need to improve customer service is driving enterprise mobility adoption in several industry verticals such as hospitality and retail. For instance, restaurants use wireless ordering for ensuring a more consistent service, while retail industry verticals implement solutions for a personalized shopping experience. Enterprise mobility tools plug holes in workflows for an end-to-end streamlining of business processes, for example from a hotel lobby or guest room to the back office. In essence, mobility tools help increase revenue generating opportunities for the hospitality and retail industry verticals.

Q5. What are the major issues to consider when deploying an enterprise mobility solution?

- A. CIOs evaluating an enterprise mobility solution need to evaluate solutions and technology providers along several parameters. They should opt for a mobility solution with a strong focus on optimum total cost of ownership. They should ideally opt for a mobility solution from a vendor with an evolved ecosystem of partners who can support the enterprise at multiple locations. The technology provider must have domain expertise in the enterprise's industry vertical. In addition, the provider must demonstrate technical expertise in business applications, mobile computing, and wireless security, management and networking.

Enterprises planning a large-scale roll out need to ensure a standard operating environment for the hardware and software components. This will help minimize complexity and cost escalations during organizational expansions globally. Capitalizing on emerging mobility technologies is all very well, but this must be accompanied with adequate product life cycle support. The computing power and battery life of devices is extremely important, when devices have multiple wireless radios and auto-identification and data capture technologies. Depending on the industry, the devices need to endure a wide range of environments. Mobile workers operating in a sensitive environment such as a petroleum drilling site need ruggedized devices that do not emit sparks and can withstand a harsh environment. The deployment of an enterprise mobility solution should ideally be accompanied by business process optimization. Enterprises should examine their business processes and see where mobility technologies could be applied to gain efficiencies. They should also rethink their business processes when deploying mobility solutions.

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Shalini Verma is a Research Manager in the Asia/Pacific Communications Group, based in Singapore. In her role, Shalini leads the unified communications, enterprise mobility, enterprise 2.0 research, by engaging in market studies to track emerging trends in the Asia/Pacific region and offer insights. Shalini is often invited to speak at industry and IDC events. Shalini has more than 10 years of industry experience across telecommunications, Internet and media.

Bryan Ma is the Director of Personal Systems research at IDC Asia/Pacific. Based in Singapore, Bryan is responsible for coordinating IDC's analysis of PCs, mobile phones, enterprise mobility, handhelds/PDAs, displays, and consumer markets research across 16 countries in the Asia/Pacific region. He and his team of analysts provide insight into technology trends through IDC's market sizing/forecasts, competitive analysis, and advisory services. Bryan has been the recipient of several recognitions at IDC, including three Research Quality awards as well as IDC's Global Fellowship. Bryan has been quoted in a number of publications, including The Wall Street Journal, Financial Times, Business Week, International Herald Tribune, USA Today, and The New York Times. He has been a featured speaker at numerous industry conferences and appears frequently as a guest commentator on television networks such as CNBC.

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