



Technology Brief...

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Research, Analysis, Strategy, Insight

Can Samsung change the way enterprises buy smartphones?

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“...Samsung’s implementation of a “Zero Touch” on-boarding and configuration capability with Knox Configure and Mobile Enrollment is a major step forward for enterprises, particularly smaller organizations, that still need to configure user devices, but without the need to procure and operate fairly complex EMM systems.....”

Enterprises are used to buying devices in bulk, having them configured to their specs and only then distributing them to users. This has been true for many years in the PC space. But with the advent of BYOD, many enterprises abdicated the responsibility of configuring and issuing corporate devices, although many are still “managed” before being connected to corporate apps. Although we still see the majority of enterprises have at least some level of corporate purchased and deployed smartphones, the trend over the past 3-4 years has been towards user purchased and enterprise enabled devices.

In large part this was driven by user demands, but also because it was difficult to acquire custom configured devices from the primary suppliers – the network operators. However with the pendulum now swinging back towards corporate procurement of devices for users, primarily in large organizations but increasingly in SMB as well, it’s time for a solution that can match the convenience and manageability/security of the traditional PC procurement process.

Microsoft announced a limited pre-configured capability for some Samsung smartphone devices purchased through its stores, but this is just a small scale capability, rather than a way for companies to create their own profiled image for all their phones. Traditionally, companies like Dell and HP would create, with the help of the organization, an image that it would install on all the PCs shipped to the organization’s users. And although they tried, almost half heartedly, to do the same with smartphones over the past few years, the amount of customization possible was very limited. Instead these firms mostly concentrated on support services. But generally it was a far cry from the customization capability offered on its PCs.

Samsung recently announced its Galaxy Note 8 Enterprise Edition to address this issue. Using Knox Configure and Knox Mobile Enrollment, companies now have a way of deploying devices to their users that can be relatively easily configured via profiles – the equivalent of “imaging” their devices. Purchased EMM products have done this for years, but require downloading an app to the devices before they can be managed. Samsung’s approach is different.

In Samsung’s case, the process is cloud based and requires no apps or back end EMM infrastructure. Once a device is purchased, a confirmation is sent into the cloud (by the operator or a designated reseller) identifying the device as being sold to a particular user or group, and to enable the enrollment process. This step is required to assure a two factor security authentication process so no devices can

be “pranked” if the original seller doesn’t verify who bought the device. At that point, the managing entity, either an IT department or similar service provider, accessing the web portal, can enter the IMEI of the device and configure it automatically when the device logs on to the network. With zero apps required on the device (the enrollment and connection process is wired-in at the factory), the Samsung devices connect transparently to the Samsung cloud service. Once properly authenticated, Knox Configure applies configuration information uploaded by the organization to the device. The user has no action to take, and the organization does not need to have an EMM installed, which is particularly attractive to SMB and/or orgs that have not acquired an EMM solution. In essence, this is a “Zero Touch” process from the end user perspective.

Samsung Configure only works with newer Galaxy class Samsung devices, as Samsung sees this as a competitive advantage against other players in the market attempting to attract enterprise users, both other Android suppliers and particularly against the iPhone.

This is a winning move for Samsung, as many companies struggle with implementing a complete EMM suite, and many use only a few basic functions rather than all the inherent capabilities. Indeed, we estimate that about 50%-65% of corporate installations use only basic MDM functions like asset tracking, policy enforcement (primarily password protection and device encryption) and wipe on lost or stolen devices. And we estimate that only about 20% - 25% of business mobile devices are currently being managed by either EMM or MDM solutions. The Samsung Configure capability should be very attractive to the 75%-80% of devices not currently being managed due to cost, complexity or lack of infrastructure.

Bottom line: Samsung’s implementation of a “Zero Touch” on-boarding and configuration capability with Knox Configure and Mobile Enrollment is a major step forward for enterprises, particularly smaller organizations, that still need to configure user devices, but without the need to procure and operate fairly complex EMM systems. While not free, such capability is much less expensive and requires far fewer resources than a full fledged EMM deployment, even those that may be cloud based. We expect this to be a very attractive option for organizations needing basic capabilities without necessitating purchase of EMM solutions.

Intel and AMD – a partnership made in gameland?

“...By linking the Intel high end processors with the competitive graphics of the AMD Radeon, Intel has created a product that filled a hole in its product line. In the next year, we expect to see thin and light laptops that will utilize the processor and integrated graphics of 8th generation Intel chips...”

Recently, Intel and AMD announced that they would be marketing a new processing element that brings together Intel’s 8th generation processors with an AMD custom Radeon graphics chip and ships in an Intel manufactured EMIB technology carrier. This yet un-named product will launch in early 2018. Including high bandwidth memory architecture (HPN2) to boost overall performance, this new offering is targeted specifically at small form factor PCs and more specifically notebooks that require more graphics performance than the integrated graphics in Intel chips can provide. While not at the performance level of the highest performance discrete graphics chips available for larger systems which use far more power and dissipate much more heat, this still goes a long way to addressing a performance gap in portable devices, and allows Intel to more fully supply product to a growing market niche..

This is a major coup for both Intel and AMD. The market growth and desirability for notebooks far exceeds the growth of desktops, and the ability to create compelling notebook devices that can be used for gaming, AR/VR, and graphic-intensive

creative functions is a sweet spot that in the past was only obtained through integration of an extra GPU chip/board, raising the cost and creating the need for more power dissipation and reduced battery life. It also often prevented the device from being in the “Ultrabook” class of thin and light machines, so favored in the market. In all likelihood, this new product might even be capable of powering sleek 2 in 1 devices. And finally discrete GPUs required some adjustments in drivers and software to operate effectively. This new combination, fully supported by Intel, will alleviate many of those issues.

This partnership is an admission by Intel that it does need an option to increase graphics performance beyond what its integrated graphics can offer for the 10% of users that need the additional performance. There are certain geographies in the world (e.g., China) where discrete graphics are still favored over the integrated solution, although that preference is slowly declining. But Intel and AMD claim that the link up is not geography-specific and will be a worldwide supported product applicable to many markets. No doubt this is true, but we still expect the product to be more popular in certain geographies worldwide.

From AMD’s perspective, this is not really a product it sees as competing with its newly energized Ryzen chips that compete head-on with Intel Core devices. Indeed, this is more of a way for AMD to increase its market share for discrete graphics components, which is an important business for AMD and a way to fight back against its primary competitor, Nvidia. With the potential to leverage the Intel channel, it provides a winning strategy for a modest amount of effort.

Bottom Line: By linking the Intel high end processors with the competitive graphics of the AMD Radeon, Intel has created a product that filled a hole in its product line. In the next year, we expect to see thin and light laptops that will utilize the processor and integrated graphics of 8th generation Intel chips, and have the ability to switch to the discrete graphics as needed for intensive graphics compute needs, and likely being less costly and more ergonomically attractive to users. This will provide a compelling option that should boost the market for gaming and creative notebooks.

Can Dell dominate the EoT?

Recently Dell created a new division whose mission it is to focus Dell’s diverse resources towards the singular needs of the Enterprise of Things (EoT). Can Dell become a leader in this potentially vast emerging market?

Dell created its new IoT division to leverage the large number of technologies needed to enable EoT. This effort requires pulling together many products from various divisions including Dell servers to enable edge computing, RSA to secure the transactions and provide visibility into network traffic, Vmware to provide virtualized data services on prem and in the cloud as well as massive storage capability necessary for large scale deployments, and Pivotal to help create the apps necessary to drive adoption. This is a formidable array of technologies covering a wide swath of the EoT. But can it really dominate a market where major companies like IBM, HPE, Oracle, SAP, etc. have each pursued an increasingly active market direction leveraging their own unique strengths?

To make EoT work for companies, many components acting together are required. Acquiring data through appropriate sensors and sensor networks starts the process. This can take many different forms, from low level inexpensive stand alone sensors all the way to highly complex data gathering and generation. This data then needs to be analyzed for required actions to make the process work at maximum efficiency. Much data will be generated, but not all data will make it to the cloud for analysis despite what some are predicting, as we expect at least 3 levels of data storage and analysis in most organizations. This requires a distributed approach to processing and storage activity.

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Acquiring the data is actually the relatively easy part with edge computing deployed for distributed data acquisition, device activation/control and analysis. This requires specialized industrial servers that, in Dell's case, its PowerEdge product line is primarily targeted at. But many different levels of edge computing will be required – from low end smartphone-level computing all the way up to relatively large multi-core Windows and Unix platforms. So while Dell does offer many servers, this is not a major differentiator or competitive advantage. Indeed, most deployments will likely have multiple server components from multiple vendors.

However, VMware gives Dell a major advantage in creating and managing a multi-level data distributed storage and analysis capability. Indeed, although VMware is not a wholly owned division, Dell does have a major ownership stake and can claim collaboration and resources others likely can't. That means that while others can utilize the VMware tools, Dell can likely get special features not available to others. As a result, we expect to see highly specialized capability unique to Dell IoT offerings.

Clearly Dell has some stiff competition. IBM has a massive effort underway in its Watson AI capability, and is arguably the most advanced AI/analytics capability available. But despite a large services organization, it can't compete directly with Dell in the variety and scope of offerings Dell brings to bare in hardware and software assets. Indeed, we expect IBM to be a partner, rather than a direct competitor.

SAP has been working in BI and Analytics for many years, and its HANA based programs can power some of the biggest analytics requirements needed. Indeed, as a proven product in real world tests, SAP will continue to be the choice for large analytics platforms powering many large corporations. But SAP needs partners to provide the underlying hardware platforms necessary to power its products, and here again Dell will likely see it as an attractive partner. And of course Oracle does not intend to let the EoT market go by, unlike its lack of focus for many years in mobility. It too has a variety of distributed analytics solutions powered by its cloud-based distributed DB and analytics engines. But despite buying Sun several years ago, Oracle lacks a real competitive hardware component, so it will need to partner with the likes of Dell or others for a full solution.

HPE does offer competitive hardware to Dell and can provide a credible alternative. In fact, it too recently announced an IoT division, and with its major services capabilities through partnerships with a major SI (formed when it divested its services business and combined with CSC). HPE therefore is a significant alternative EoT vendor, although does not have the breath of hardware and software assets that Dell enjoys.

Bottom Line: To be successful in EoT, vertical expertise is required to create a total solution for a specific function (e.g., smart cities, healthcare, robotics, autonomous vehicles, retail, etc.). So creating a viable partner ecosystem is the only way to successfully be a full service provider across industries. That means Dell needs to work closely with GE Predix, Siemens, PTC, etc. However, given its array of technology assets, Dell is in a prime position to provide fundamental platforms for powering most EoT deployments, and companies will do well to evaluate their solutions.

About J. Gold Associates, LLC.

J. Gold Associates provides advisory services, syndicated research, strategic consulting and in-context analysis to help its clients make important technology choices and to enable improved product deployment decisions and go to market strategies. We work with our clients to produce successful new product strategies and deployments through workshops and reviews, business and strategic plan coaching and reviews, assistance in product selection and vendor evaluations, needs analysis, competitive analysis, and ongoing expertise transfer.

J. Gold Associates provides its clients with insightful, meaningful and actionable analysis of trends in the computer and technology industries. We have acquired a broad based knowledge of the technology landscape and business deployment requirements, and bring that expertise to bear in our work. We cover the needs of business users in enterprise and SMB markets, plus focus on emerging consumer technologies that will quickly be re-purposed to business use.

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