



Enterprise Mobility TCO—When Rugged Makes Sense

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ENTERPRISE MOBILITY end users are faced with a myriad of decisions when evaluating potential solutions. Perhaps one of the most critical is the selection of commercial grade or ruggedized mobile devices. Inevitably the environment in which the device will be used should drive much of this decision. However, based on recent research conducted by VDC, it became evident that commercial grade devices are frequently deployed in traditional rugged markets.

Leading factors driving the selection of commercial grade over rugged hardware include, among others, the lower upfront investment, access to more current technology and short replacement requirements. While many of these represent viable selection metrics, when considered in isolation they become meaningless. Few companies are committing to total cost of ownership (TCO) analyses when evaluating solutions, and those who do limit the model to upfront purchase variables.

Currently, less than 40 percent of enterprise mobility users conduct a TCO analysis prior to adopting their system. Even more alarming is that there is a lack of consistency in the factors included in the models used. Frequently, end users focus only on the upfront direct costs of the system—primarily for hardware, software and integration. Of equal importance to the final analysis are indirect costs—particularly for ongoing maintenance and service, training, downtime from failed hardware or software, etc.

In an effort to better understand the TCO debate as it relates to mobile computing solution deployments, VDC conducted a comprehensive survey of several hundred end users of mobile computing in enterprise applications, asking them about the frequency of mobile device failures, period of downtime incurred, time of IT personnel to support downtime, and a variety of other metrics. The analysis was based on a five-year time horizon that accounted for replacement costs for each solution.

The results were compelling. While VDC is certainly not advocating the use of rugged mobile solutions for all enterprise mobility solutions, there is clear evidence that rugged mobile devices provide a superior cost profile to commercial grade solutions in select environments. For example, in harsh field service, supply chain/transportation and public

safety, the annual TCO of a mobile rugged device was as much as 35 percent lower than for non-rugged devices.

What is an acceptable failure rate?

On average, 4 percent of rugged mobile computers installed to support enterprise mobility applications in “harsh” environments fail per year. Conversely, the annual failure rate for commercial grade devices in similar harsh environments rockets to 36 percent. End users need to anticipate device failure rates into their deployment plan. The critical issue is effectively managing failure rate and downtime to minimize impact on the operation.

A further distinction to consider is the potential financial impact in lost revenues for certain applications. For example, employees supporting DSD/route applications frequently do not have access to backups when the device goes down. In addition, for these applications there is a sales/revenue-generating component of the application. Therefore, the cost of system failure not only includes loaded labor rates for the employees but also lost revenue that can be as high as \$125 per hour.

Additional factors to consider when evaluating TCO include system deployment and management tools. One of the critical benefits of a successful mobile deployment is having full functionality of the application, providing both data access and modification capabilities in multiple modes: always connected, occasionally connected and disconnected. In addition, system maintenance accounts for more than 20 percent of the TCO of currently deployed mobility solutions. Much of the expense relates to providing upgrades to deployed solutions or modifying current applications. Providing the necessary software distribution and device management requirements while adhering to the strictest security specifications is increasingly critical.

For end users, selecting the appropriate solution for their business will have ramifications throughout their organization. TCO analyses should be considered and leveraged as critical tools to more effectively navigate the decision-making process. ■

Venture Development Corporation is an independent technology market research and consulting firm that has been in business for more than 30 years.