VDC Research
Insights for the Connected World

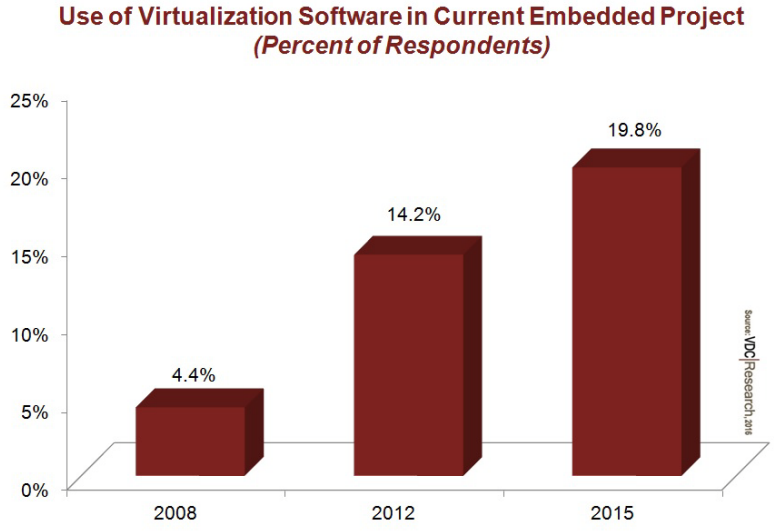
Press Release

One in Five Embedded Projects Now Integrating Virtualization, According to New Report by VDC

Security concerns are at the forefront as IoT connectivity comes to an increasing share of the world's life-critical devices and systems.

"Strong growth is expected in the hypervisor and secure OS market as IoT automotive and gateway solutions mature and a new wave of increasingly-connected, life-critical devices begins to be deployed, used, and hacked."

Natick, MA (PRWEB) February 12, 2016



Growth in the hypervisor and secure operating system (OS) market will quickly outpace growth in the overall IoT & embedded OS market, according to a new report by VDC Research (click here to learn more). Safety, security, and virtualization – through solutions such as cryptographically secure operating systems and embedded hypervisors – will create valuable differentiation for vendors who are experiencing shrinking margins on conventional embedded OSs due to the widening pool of free and open source alternatives.

While safety has long been a top priority for many embedded software vendors, a certified-safe solution is not necessarily a secure solution that has been adequately hardened against the threat of attack. The common standards that regulate the safety/reliability of embedded software in automotive (ISO26262), medical (IEC 62304), and avionics (DO-178) markets do not address the attack vectors that scale up exponentially as connectivity is added to these life-critical systems.

"The IoT market has developed thus far with few security-specific regulations," says VDC analyst Roy Murdock. "Consequently, the awareness and adoption of security solutions has been relatively muted." VDC's research suggests that safe and secure OS revenue accounted for only 18.8% of total IoT & embedded OS revenue across the globe in 2014. VDC forecasts this percentage to increase as a surge of IoT activity sweeps across the automotive and medical markets over the next five years. All of the important players in the safety and security ecosystem recognize the growing need for a comprehensive security framework for connected and embedded devices.

Hypervisors and related virtualization solutions in the IT/enterprise environment have seen a large increase in awareness and adoption in recent years. While the use cases for hypervisors in the embedded world, from vendors such as Wind River and Green Hills, are different, VDC has observed a concurrent uptick in the embedded hypervisor market. In VDC's 2008 IoT & Embedded Engineer Survey, only 4.4% of engineers indicated that they were working on a virtualization-enabled project. This percentage has increased over fourfold to 19.8% in 2015.

While it is clear that engineers are adopting this technology primarily for security reasons, many OEMs lack awareness regarding the uses and benefits of different hypervisor solutions. In addition, many customers lack the adequate incentives to implement thorough security, because good security rarely generates headlines or bonuses.

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As the market for life-critical, connected devices matures, regulatory agencies, embedded software vendors, and OEMs will need to join together in a concerted effort to create safe, secure, cost-effective, and connected products.

About VDC Research

Founded in 1971, VDC Research provides in-depth insights to technology vendors, end users, and investors across the globe. As a market research and consulting firm, VDC's coverage of AutoID, enterprise mobility, industrial automation, and IoT and embedded technologies is among the most advanced in the industry, helping our clients make critical decisions with confidence. Offering syndicated reports and custom consultation, our methodologies consistently provide accurate forecasts and unmatched thought leadership for deeply technical markets. Located in Natick, Massachusetts, VDC prides itself on its close personal relationships with clients, delivering an attention to detail and a unique perspective that is second to none.