

IDC MarketScape: Worldwide Unified Endpoint Management Software for Ruggedized/Internet of Things Device Deployments 2022 Vendor Assessment

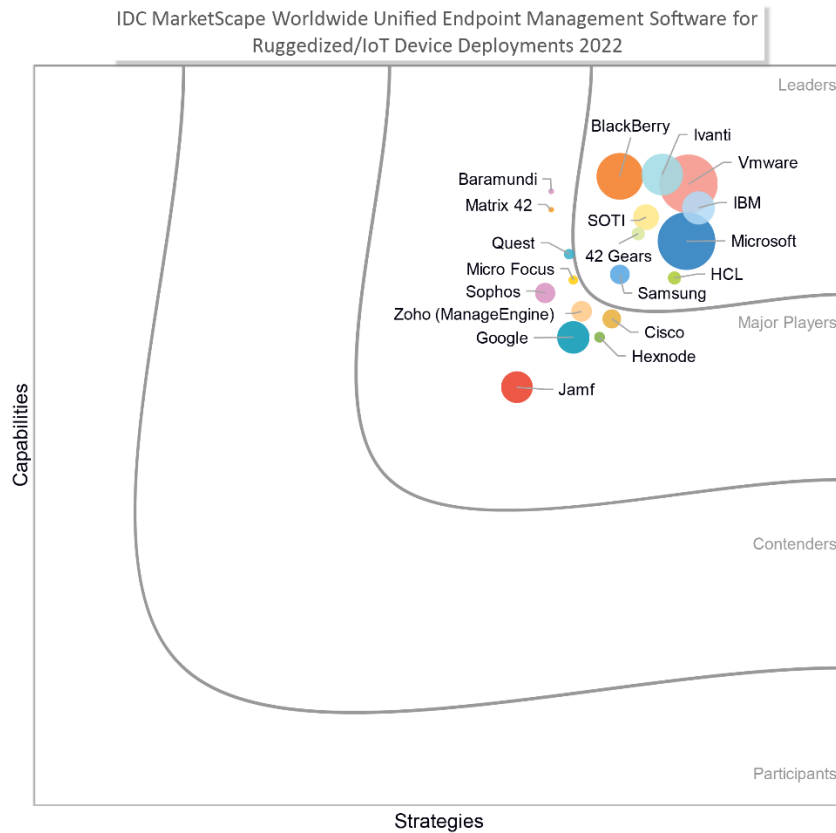
Phil Hochmuth

THIS IDC MARKETSCAPE EXCERPT FEATURES VMWARE

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Unified Endpoint Management Software for Ruggedized/IoT Device Deployments Vendor Assessment



Source: IDC, 2022

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Unified Endpoint Management Software for Ruggedized/Internet of Things Device Deployments 2022 Vendor Assessment (Doc # US48325322). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

Endpoint devices in the enterprise take more forms than PCs, smartphones, and tablets used in general computing and office work scenarios. Connected client endpoints, often based on mobile OS frameworks or other embedded OS platforms, are now present in use cases ranging from medical devices and equipment to manufacturing plants, warehouses and logistical settings, public safety, and a range of other verticals and use case scenarios.

Single-purpose devices – PCs, smartphones, or tablets – are now used widely in many vertical industry use cases for data entry and scanning, communications, retail transactions, and information/data dissemination. Most such devices run standard operating systems – iOS, Android, or Windows 10 IoT – but are not meant for generalized use and computing. Often a single app or a group of special-purpose apps are the only software deployed on such endpoints.

Adjacent to ruggedized device use cases is workspace IoT – a term describing connected device use cases where end users interact with app- or task-specific devices connected to a cellular or private wired/wireless corporate network. Scenarios might include touchscreen interfaces for booking a conference room, public information kiosks or interactive digital signage, device interfaces for conference room collaboration or content sharing equipment, and many others.

Unified endpoint management (UEM) tools have a major role in the use of ruggedized and IoT devices in enterprise use cases. Many businesses are looking to UEM platforms as a central management console for all endpoint types – both general computing and ruggedized/IoT. Others look to UEM platforms for managing multiple device types (e.g., Android and iPadOS tablets) in a ruggedized/IoT scenario but separate from general-purpose endpoint management. However, businesses approach the management software for ruggedized and IoT endpoints; several key considerations to consider include:

- Breadth of OS support, in terms of general purpose, but also proprietary and specialized device OSs
- Interoperability with back-end systems and business software platforms (such as medical, logistics, or retail systems) being a critical requirement for ruggedized/IoT endpoints
- Security concerns and risk factors in sensitive data being accessed by specialized endpoint devices
- Connectivity and device OS management, software updating, and provisioning
- Vertical- or industry-specific regulatory or compliance requirements

IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

IDC invited vendors to participate in this assessment based on the following key criteria:

- The vendor has an UEM suite offering device and application management functions for Apple macOS (Mac) PCs and laptops as well as for iOS (iPhone) smartphones and iPadOS (iPad) tablets.
- The vendor has UEM product revenue of \$5+ million for calendar year 2021. Revenue was estimated in May 2022 and may differ from forthcoming market share documents.

In addition to the companies profiled in this study, there are a number of other companies in the UEM market. These include Apple, Addigy, Amtel, Citrix, HMD, Kandji, Prey Software, SimpleMDM, Tanium, and Verizon.

ADVICE FOR TECHNOLOGY BUYERS

Buyers of UEM software should look for the following attributes, capabilities, and relevant use case scenario support from vendors under consideration:

- **Enforceable and maintainable device state and functionality.** Transforming a consumer-centric device (e.g., an iPhone or a Google Pixel device) into a locked down, single-purpose endpoint is relatively simple, but meeting specific industry and use case requirements and security needs is a key consideration for ruggedized and IoT device management platforms.
- **Conditional access controls and policy enforcement triggers.** This is becoming a critical feature of UEM platforms. Conditional access controls what apps, data, or other resources a user can connect to and consume based on an array of factors, such as location (GPS location and network connectivity type) as well as the day, the end-user identity and role, and the state of or health of the device being used (from the standpoint of a jailbroken/rooted device or an operating system [OS] that is out of date).
- **Workspace intelligence and analytics.** With a broad view of endpoint and end-user activity, UEM platforms are becoming a central point of data gathering and analytics on enterprise worker behavior, device, app, and data usage patterns, as well as analysis of software performance and availability. UEM vendors with strong analytics and reporting capabilities around these key metrics will have competitive advantages over vendors not focusing on this area.
- **Baseline mobile endpoint support.** In addition to PC support, core mobility functionality of UEM platforms is in the areas of mobile device management (MDM), MAM, and MCM. Core functional components also include secure PIM, DLP and file access controls restrictions, app wrapping, and SDK capabilities. While UEM platforms are evolving to new use cases and management tasks, these core UEM platform capabilities are still a baseline requirement.
- **Strong portfolio of adjacent and complementary IT products, services, and solutions.** Solutions such as identity, cloud access security brokers (CASBs), IT service management (ITSM), IT asset management, network security, and end-user productivity apps are all important for tight integration with UEM platforms, according to users deploying the technology.
- **A broad set of legacy and modern PC management support functions.** The long tail of PCLM and traditional management requirements means solutions that can address both legacy and modern endpoint management scenarios will have the greatest value to deploying enterprises.
- **Ability to support both mobile and PC form factors.**

VENDOR SUMMARY PROFILE

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

VMware

VMware is positioned in the Leaders category in this 2022 IDC MarketScape for worldwide UEM software for ruggedized/IoT device deployments.

Founded in 1998 in Palo Alto, California, VMware is a large enterprise system infrastructure software vendor with roots in server and desktop virtualization. Its UEM product, VMware Workspace ONE, has evolved from technology acquired when it bought EMM/MDM vendor AirWatch in 2014. Workspace ONE has since become more deeply integrated with the vendor's desktop virtualization, security, networking, and identity and analytics technologies.

Workspace ONE addresses a broad range of device types and use cases across vertical industries, from traditional mobility management to modern Windows PC and Mac management and IoT device management. The UEM component of Workspace ONE is also part of a broader product portfolio from VMware's end-user computing group, including VMware Horizon desktop virtualization, endpoint and application analytics, and endpoint security based on technology acquired in the purchase of Carbon Black.

VMware made a number of improvements and advancements in Workspace ONE in 2021, including augmented management capabilities for Apple's macOS devices, as well as Windows management. Apple device enrollment has also been expanded in Workspace ONE, such as provisioning and enablement of native Mac and SaaS-based apps for productivity. The provisioning also extends to device-level user/admin accounts and allows for Macs to be directly configured for corporate identities out of the box. On the Windows front, Workspace ONE now includes Drop Ship Provisioning of corporate Windows PCs from Dell, as well as Lenovo and HP Inc. The Drop Ship Provisioning Online function allows for a Windows Autopilot-like provisioning experience without the need for Azure AD Premium purchase, which sets up devices pre-shipment in the OEM or partner factory imaging process, including deeper levels of configuration such as Group Policies, Win32 apps, identity and Active Directory domain registration, and setup.

VMware also integrates with ITSM vendor ServiceNow to allow administrators to launch end-user support functions such as remote device locking, remote takeover, and screen viewing right from the ServiceNow interface, without having to change to a Workspace ONE console.

Strengths

- Digital Employee Experience Management is an evolution of VMware Workspace ONE Intelligence. The Digital Experience technologies can measure device-level and app-level performance of technology, such as devices with poor battery health, slow boot-up, or crashing apps, and network performance and calculate experience scores based on all these inputs and monitored metrics.
- Workspace ONE Freestyle Orchestrator tool, intended for IT teams to create automated management orchestration workflows, also saw traction among Workspace ONE customers with UEM customers deploying this technology in their environments. Workspace ONE also

includes end-user-focused automation tools, such as Workspace ONE Experience Workflows for quick task and end-user workflow integrations within the Intelligent Hub user interface.

- Workspace ONE Assist is another add-on function that expands the scope of the company's UEM product further – in this case, to remote device management and screen viewing. This allows IT teams to view or take over the main screen or user interface of a supported Windows/Mac/Linux device, virtual desktop, as well as iOS/Android devices – a key criterion for supporting frontline/ruggedized endpoint management use cases.
- VMware has also extended app-based VPN tunneling to nonmanaged endpoints (via VMware SD-WAN function) as part of the company's larger VMware Anywhere Workspace technology, which incorporates UEM and SD-WAN technologies.

Challenges

- While VMware has done a good job packaging its adjacent products around Workspace ONE (e.g., Anywhere Workspace, combining UEM, endpoint security, and SD-WAN), some customers still see the functional integration among products as lacking. In particular, integrations of the acquired Carbon Black endpoint security software with Workspace ONE are still limited and operate as if the products are offered by two separate companies, users said.
- Some customers IDC spoke with for this study said that data extraction and reporting in Workspace ONE was difficult to set up. Data accuracy and consistency of reporting were also areas where Workspace ONE users said the product needs improvement.

Consider VMware When

Consider VMware for all UEM deployment scenarios, especially where management software platform consolidation and reduction is a core requirement, as Workspace ONE is capable of handling nearly all endpoint management scenarios as a standalone system.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics

by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

Unified endpoint management (UEM) is a technology submarket category of the client endpoint management functional software market. UEM solutions combine into a single software platform the management and provisioning functions for most common end-user computing operating systems (i.e., Windows, macOS, iOS, Android, and Chrome OS) and device types. By definition, UEM products must be able to manage both mobile and PC endpoints; this excludes legacy platforms such as PC life-cycle management (PCLM), PC imaging solutions, and mobile device management (MDM).

LEARN MORE

Related Research

- *IDC Market Glance: Client Endpoint Management, 1Q22* (IDC #US48969122, March 2022)
- *Top 5 Trends in Unified Endpoint Management to Watch in 2022* (IDC #US48779022, February 2022)
- *Top Technology Integration Opportunities for Unified Endpoint Management* (IDC #US48266821, September 2021)

Synopsis

This IDC study represents a vendor assessment of providers offering unified endpoint management (UEM) software for ruggedized/IoT device deployments through the IDC MarketScape model. The assessment reviews both quantitative and qualitative characteristics that define current market demands and expected buyer needs for UEM software. The evaluation is based on a comprehensive and rigorous framework that assesses each vendor relative to one another, and the framework highlights the key factors that are expected to be the most significant for achieving success in the UEM market, targeting ruggedized/IoT device deployments, over the short term and the long term.

"Connected end-user computing devices are now commonplace in most frontline worker scenarios as well as transportation/logistics and field force and specialist roles," says Phil Hochmuth, program vice president, Endpoint Management and Enterprise Mobility at IDC. "Connected smart devices, or workspace IoT endpoints, are also playing a critical role in helping organizations return workers to offices and corporate campuses safely. Managing this broad range of device types (beyond laptops and smartphones) is becoming a critical requirement for unified endpoint management software platforms, as businesses look to consolidate tools and teams that support digital workspace environments."

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