IDC MarketScape: Worldwide SaaS and Cloud-Enabled Asset-Intensive EAM Applications 2020–2021 Vendor Assessment

Juliana Beauvais   John Villali   Reid Paquin   Andrew Meyers
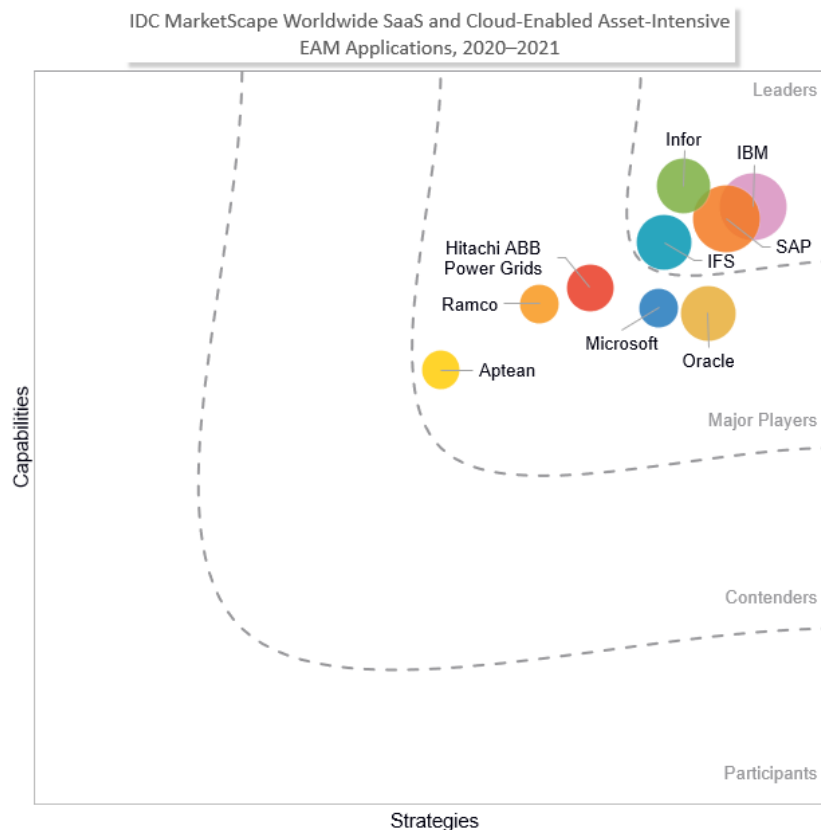Kevin Permenter

THIS IDC MARKETSCAPE EXCERPT FEATURES INFOR

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide SaaS and Cloud-Enabled Asset-Intensive EAM Applications Vendor Assessment

Source: IDC, 2020

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

November 2020, IDC #US46261320e

IN THIS EXCERPT

The content for this excerpt was taken directly from "IDC MarketScape: Worldwide SaaS and Cloud-Enabled Asset-Intensive EAM Applications 2020-2021 Vendor Assessment" (Doc # US46261320). 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

Enterprise asset management (EAM) is experiencing an intelligence revolution. Organizations are beginning to adopt smart assets, IoT systems, and autonomous workflows. As data becomes prolific, EAM software vendors will face new expectations because assets, as well as the methods for managing them, are changing. EAM applications now apply artificial intelligence (AI) and machine learning (ML) to capture, organize, and analyze massive amounts of data to make asset-related predictions and recommendations. Today, it's more about decision-making engines and subsequent actions than being able to churn through large data sets. Modern, innovative, and cloud-enabled applications can trigger service events, track asset locations, predict failures based on conditions, and ensure compliance.

Even with several years of progress in deploying and improving EAM software, asset-intensive industries still have plenty of opportunities to automate manual tasks across maintenance execution, work scheduling, spare parts procurement, and asset life-cycle management. The conditions created by the COVID-19 pandemic have forced organizations worldwide to shift to more remote, contactless, and virtual methods to observe, inspect, maintain, and optimize complex assets. Digitally enhanced enterprises need next-level EAM to survive the future. Here are a few key characteristics of asset-intensive EAM applications:

- **SaaS and cloud migration:** Digitally fit organizations are increasing their investments in cloud EAM software for ease of deployment, configurability, and scalability. When the COVID-19 pandemic disrupted businesses, organizations already deploying cloud applications found they could quickly adapt to new conditions, access critical business information, and immediately leverage new tools and apps released by technology vendors.
- **Data-driven decisions:** Organizations still using legacy systems, spreadsheets, and clipboards for critical EAM functions are missing out on much needed productivity, transparency, and insights. Organizations risk losing competitive advantage to those that have better data, more readily available information, and clearer reports to make better business decisions. EAM software vendors are also applying artificial intelligence and automation to enable better visualizations, streamline workflows, and help organizations process insights faster.
- **Human-centric mobility:** While mobile was already an important aspect of evaluating EAM solutions, 2020 has given it a new flavor and broaden the need across additional roles and tasks. IDC predicts that by 2022, 75% of organizations will use mobile solutions to improve unstructured data collection at the point of activity, better support remote/hybrid workers, and optimize resource productivity. Although adoption is more widespread, EAM purchase decision makers and end users express a need for mobile applications to do more than submit work order tickets and log basic information in the field. Organizations have new mobile requirements around areas like user experience, virtual assistants, voice interfaces, and technician guidance. Application vendors are listening and rolling out new functionality.

- **Remote and autonomous tasks:** The trend to further automate tasks is gaining speed as more companies realize numerous health, safety, and productivity benefits. This will accelerate DX use cases such as factory automation, warehouse robotics, drone inspection, mobile workforce empowerment, remote virtual assistance, and augmented technician guidance. Highly configurable EAM applications will help each organization support automation in its unique, diverse, and large-scale asset portfolio.

- **Innovation accelerators:** Enterprises are transitioning from pilots to scaled up deployments as they start to see positive financial results from extending the innovation in their EAM solutions. EAM applications are increasingly integrated with IoT, digital twin, augmented reality, and location-based service technologies to maximize asset performance, improve technician productivity, and increase customer satisfaction.

- **Changing workforce:** Asset management is experiencing a workforce changeover. Millennials are now the largest demographic in the workforce, representing over half of workers. These digital natives grew up using technology but lack the years of equipment experience held by experts leaving the workforce. The ultimate objective for adding innovation, be it mobile, AI, automation, or augmented reality, should be to support the teams that maintain, operate, and use the assets. Modern EAM applications help onboard the next generation of workers and leaders, either by increasing productivity, improving work quality, simplifying maintenance workflows, or supporting faster, more reliable decision making.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

The vendor inclusion list for this document was selected to accurately depict the vendors that are most representative of any given EAM applications on asset-intensive industry buyer's selection list based on the following:

- Vendors must have a SaaS or cloud offering – on premises-only applications are out of scope.
- EAM application can be purchased separately (not only functionality built into a larger system) and is available off the shelf without required customization.
- EAM application has work order management, spare parts inventory, maintenance procurement, and predictive maintenance functionality.
- The vendor had 2019 revenue in at least two major geographic regions (North America, Latin America, EMEA, and Asia/Pacific).
- The vendor had at least $15 million in 2019 EAM software revenue.

ADVICE FOR TECHNOLOGY BUYERS

EAM applications are evolving rapidly as vendors invest research and development dollars into bolstering, augmenting and, in some cases, redesigning their EAM applications. As a result, it is extremely important for end users to understand how vendors and their software are positioned currently as well as how EAM solutions may be situated in the next three to five years. Organizations typically make a long-term commitment to their EAM applications because the costs to migrate the asset data, configure and customize workflows, integrate with adjacent systems, and train a distributed, and often partially outsourced, team of technicians is too high. Thus it is vital to evaluate the software vendor's strategy, road map, and responsiveness to customer feedback in addition to its present features and functionality.

Innovation is an essential part of the "buy" decision, so a guiding factor in our vendor research was the 3rd Platform and innovation accelerators' current capabilities in addition to the strategic direction. Buyers are looking for a technology partner that can rise to the complex, agile, and remote asset management needs, which this time demands, as well as take them into the future. Several vendors outlined in this study have focused their EAM software packages on specific asset-intensive industries, while others serve organizations across many verticals such as retail, healthcare, wholesale/distribution, or public sector. The vendors vary in terms of size, experience, levels of support, sales model, and focus on the market. Following are a few key steps in the journey to select the right fit among the myriad of software vendors:

- **Understand your needs:** Before you choose your EAM vendor and product, you should first take the opportunity to do some self-reflection. A few key questions to ask regarding the internal factors involved in choosing software are:
  - What is our strategy for managing and maintaining assets as well as the teams that implement those activities?
  - Are we looking to better define or improve our processes as we implement new technology?
  - What aspects of enterprise asset management do we want to digitally transform first and what features do we consider essential now?
  - How has the COVID-19 pandemic changed or restructured our business?
  - What industry-specific considerations apply to our software selection?
  - How many and what types of users will interact with the software, including consideration for ways in which third-party contractors will interact with the application?
  - How much are we willing to spend on the software?
  - Will we be doing a new installation (greenfield) or migrating (brownfield) from an existing application to a new one?
  - What are the deployment models we are using now, and are we planning on shifting?
  - What are the organization's internal support resources and capabilities?
- **Do your research:** With so many options, asset-intensive enterprises must take a systematic approach to researching and vetting software packages. Tap into the vast web of software evaluation options including market research firms, online review sites, and industry associations. A few key questions to ask when researching the software are:
  - Does the vendor have experience in successfully implementing EAM solutions in our industry and company size?
  - Is the vendor knowledgeable about applicable regulations and guidelines, both locally and globally, as they affect our company?
  - What levels of support are available, and can the vendor or partners support all the geographic regions where we operate?
  - Is the ROI achievable? Does the vendor have a track record of meeting the ROI requirements?
  - Can the vendor integrate with our organization's other IT systems?
  - Is the product available anywhere and anytime?
  - Does the software come with artificial intelligence, machine learning, robotic processing automation (RPA), virtual assistant chatbots, or natural language processing?

- What purchasing, pricing, and cloud deployment options does the vendor offer?
- How long does it take to implement the software? How quickly can we start using the product?
- Do we need an outside consultant to help with deployment? Is there self-training available for our team?
- What type of in-house IT resources do we need to have available, if any? Or are we reducing internal resources and datacenter by moving to the cloud?

- **Look to the future:** Asset-intensive enterprises are adopting more innovation for productivity improvements, autonomous operation, and competitive advantage. Organizational agility is critical when purchasing software as the applications and vendors must be able to scale up to support your growth or scale back if business may need to slow down. A few key questions to ask when considering the growth aspect of choosing a software package are:
  - Is the product updated frequently enough for our needs?
  - What new innovations is the vendor offering or considering, especially with regard to IoT, digital twin, augmented reality, and location-based services? How and when will it impact my business?
  - When will new digital transformation use cases be built out in the product and what impact will it have on our asset management processes and outcomes?
  - What is the vendor's strategic investment outlook for the next three to five years? Why? How will that change and enhance my business?
  - Will the vendor be a partner, helping our business grow now and in the long term?

This IDC MarketScape vendor assessment assists in answering the aforementioned questions and others. The goal of this document is to provide potential software customers with a list of asset-intensive EAM application vendors that have taken great strides to incorporate the previously listed capabilities. We have profiled and assessed their capabilities to support the complicated area of EAM software.

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 the vendor's strengths and challenges.

Infor

After a thorough evaluation of Infor's strategies and capabilities, IDC has positioned the company in the Leaders category in this IDC MarketScape for SaaS and cloud-enabled asset-intensive EAM applications.

Infor's asset management application, Infor CloudSuite EAM, provides multitenant SaaS and mobile capabilities. Infor EAM is a purpose-built asset management software designed to scale and adapt as organizations change and grow. Infor EAM delivers a highly configurable solution with industry-specific editions for various sectors such as transit, manufacturing, utilities, public sector (FedRAMP deployments), hospitality, healthcare, and oil and gas. Infor CloudSuite EAM has native mobile applications for field work, as well as options for HTML delivery and ESRI support for offline maps. Infor CloudSuite Facilities Management combines the core EAM application with tools designed for

building management. Infor EAM MP2 is an EAM application tailored for small and midsize businesses.

The core application aggregates and analyzes IoT data and most customer automation needs are met by Infor EAM Alert Management, which allows users to configure alerts. Infor EAM data can be pushed to the Infor Data Lake to apply machine learning algorithms and send subsequent recommendation back to Infor EAM. Infor offers an extensibility framework for capabilities such as low-code application design via Infor OS, web services toolkits, custom reports, and roll-based apps. Digital twins, 4D modeling, and other digital content are available through Infor EAM OpenCAD, OC BIM, and integration with third-party tools. Infor is further building out asset performance management capabilities, which it first added to Infor CloudSuite EAM at the end of 2019.

Quick facts about Infor are as follows:

- **Employees:** 17,000+
- **Globalization:** Over 45 sales offices outside of the United States and EAM application is available in 16 languages
- **EAM partners:** 1,750+ partners overall and, for EAM specifically, over 50 ISV and channel partners that act as resellers and over 60 implementation and consulting partners worldwide
- **EAM industry focus:** Public sector, transportation, oil and gas, energy, manufacturing, life sciences, healthcare, and facilities
- **Ideal EAM customer size:** Greater than $250 million in annual revenue
- **Cloud:** Multitenant SaaS via Amazon Web Services, private cloud, or FedRAMP Cloud
- **Mobile:** Natively developed mobile app for iOS, Android, and Windows devices, with support for offline and online access
- **Pricing model:** Subscription fee is based on the number of users, devices (for mobile app) and, in some cases, by data or consumption (i.e., integration transaction volumes)

Strengths

- **Product innovation:** Customers have been pleased with Infor for applying user feedback to application enhancements. One user mentioned that the customers drive the product road map and Infor has been effectively communicating changes from start to finish. Users also had positive views on the update cycle and believe enhancements based on customer board suggestion greatly contribute to continuous improvement.
- **Implementation:** Infor's implementation experience exceeds customer expectations. Organizations highlight rapid deployment of Infor EAM to their facilities and quick adoption by their varied user profiles. Deployment is aided by the application's flexibility, adaptability, and extensibility, combined with simple screen designers, role-based security, and a rich feature set. Infor also has a strong relationship with its channel and consulting partners and is discerning in which new partners it onboards.
- **Customer support:** Organizations are pleased with Infor's customer support, remarking on the ultra-responsiveness of tickets addressed within half an hour. One customer even went as far as saying that Infor EAM support is hands down the best product support they have received from any vendor.

Challenges

- **User interface:** The user interface may require training and experience to take full advantage of all the features. Customers noted that some of the views contained too much information on one screen and user interfaces occasionally make processes overly complex.

- **Insights over data:** Some users believe that the application could deliver more insights and guidance to help navigate the data. Infor relies on dashboards, reports, and data list views, which the user must read, analyze, and understand. Infor's road map could better emphasize artificial intelligence and machine learning for processing maintenance data, interpreting information, and making maintenance recommendations. Customers note that AI and maintenance maturity will play a key role in scaling up their businesses.

- **Transition to cloud:** Infor differentiates in the market with a true multitenant SaaS solution, but asset-intensive industries have been slower to accept cloud deployments, especially for EAM. Infor must continue to clearly convince customers of the value in a cloud-based maintenance approach. Industries that are heavily regulated have particular challenges with cloud adoption, such as converting from one-time expenditures to recurring licensing fees.

Consider Infor When

Consider Infor if you are a company in an asset-intensive industry looking for a SaaS-based flexible EAM application with strong customer support and customer-driven product innovation.

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

This IDC MarketScape evaluation focuses on SaaS and cloud-enabled asset-intensive enterprise asset management (EAM) applications. EAM applications software automates the many aspects of managing an organization's physical assets. An organization's assets may include facilities, building electrical and mechanical systems, manufacturing equipment, mining machinery, oil rigs, fleets, linear assets (i.e., roads, rail, pipelines, power generation, transmission, and distribution lines), and more. Asset management applications support asset record management, descriptions of items maintained, work order management, and maintenance reporting. EAM applications combine maintenance and asset life-cycle management, following assets from "as built" to "as maintained" and through to decommissioning. Enterprise asset management applications typically include asset tracking and location, spare parts inventory management, maintenance procurement, capital planning, and financial analysis. Many applications also have predictive maintenance, asset performance management, and field service functionality.

Typically, EAM solutions are architected with an integrated set of business rules and metadata, accessing a common data set (logical or physical) from a single, consistent user interface. Asset-intensive EAM solutions are available on premises, in cloud-enabled models (i.e., hybrid or single-tenant private cloud), and multitenant public cloud SaaS deployments.

TABLE 2

Key Strategy Measures for Success: Worldwide SaaS and Cloud-Enabled Asset-Intensive EAM Applications

Strategies Criteria	Definitions	Weight (%)
Innovation	The vendor demonstrated and has a plan for enhancing innovation in the near term, including mobility, location-based services, IoT, digital twin, augmented reality, automation, and artificial intelligence capabilities.	40.0
Functionality or offering strategy	The vendor's customers understand the vendor's strategy and investments with regard to the product road map and its ability to match evolving business needs.	24.0
Delivery	The vendor offers multitenancy, flexibility, and a variety of cloud delivery models, as well as effectively managing its cloud solutions.	20.0
Growth	The vendor has a robust, expanding partner network, programs to support ongoing customer success, implementations in multiple regions, and is actively expanding its customer base.	16.0
Total		100.0

TABLE 2

Key Strategy Measures for Success: Worldwide SaaS and Cloud-Enabled Asset-Intensive EAM Applications

Strategies Criteria	Definitions	Weight (%)

Source: IDC, 2020

LEARN MORE

Related Research

- *IDC FutureScape: Worldwide Intelligent ERP 2021 Predictions* (IDC #US45753520, October 2020)
- *Market Analysis Perspective: Worldwide Enterprise Asset Management Applications, 2020* (IDC #US45754420, September 2020)
- *COVID-19 Brings Task Applications to the Enterprise* (IDC #US46851820, September 2020)
- *Enterprise Applications: New Applications Emerging and Reshaping the Enterprise* (IDC #US46770520, August 2020)
- *Worldwide Enterprise Asset Management Applications Forecast, 2020-2024: Intelligent EAM* (IDC #US45244220, June 2020)
- *Worldwide Enterprise Asset Management Applications Market Shares, 2019: Year of Innovation Accelerators* (IDC #US45244020, June 2020)
- *Smart Assets: The Challenges and Promises for Asset Management* (IDC #US44645319, June 2020)
- *Cloud: The Preferred Organization Deployment Model for Enterprise Applications* (IDC #US46632520, June 2020)

Synopsis

This IDC study provides an assessment of prominent SaaS and cloud-enabled asset-intensive EAM application vendors and discusses what criteria are most important for companies to consider when selecting a software solution.

"Asset-intensive organizations are adopting more remote, contactless, and virtual approaches to maintenance execution, work scheduling, spare parts procurement, and asset life-cycle management. Digitally enhanced enterprises need next-level EAM to survive the future. In response, software vendors are delivering business value with innovation across mobility, IoT, AI, automation, augmented reality, and location-based technologies," says Juliana Beauvais, research manager, Enterprise Applications at IDC.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-community.com
www.idc.com