IDC MarketScape

IDC MarketScape: Worldwide Public Deployment-Centric Cloud Application Platform 2015 Vendor Assessment

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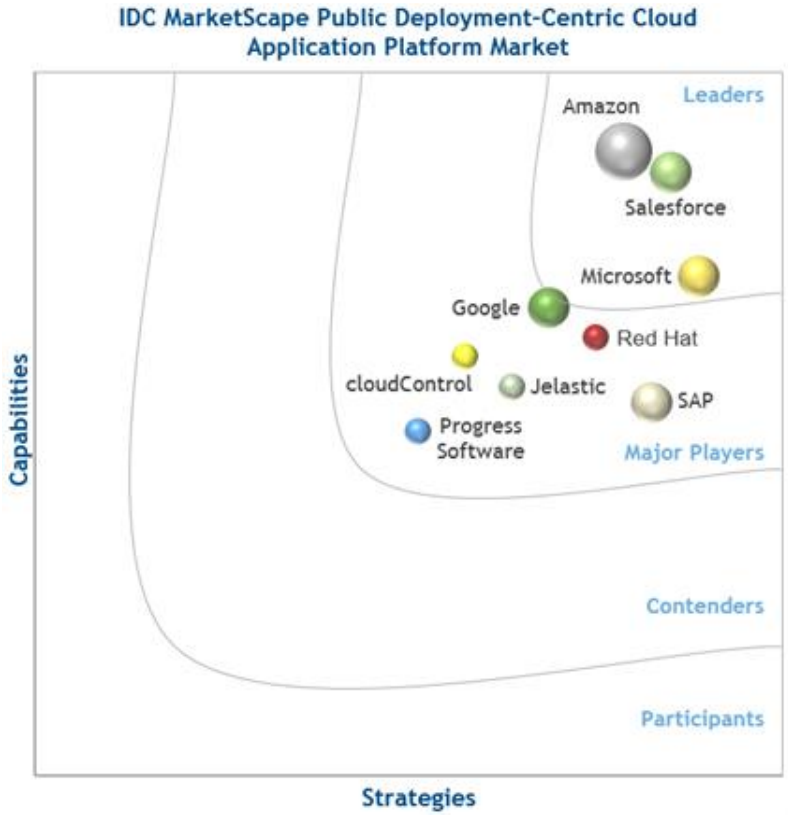
THIS IDC MARKETSCAPE EXCERPT FEATURES RED HAT

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Public Deployment-Centric Cloud Application Platform Vendor Assessment



Source: IDC, 2015

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

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IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Public Deployment-Centric Cloud Application Platform 2015 Vendor Assessment (Doc #US40613015). 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

IDC considers cloud application platforms to be the foundation of the overall platform-as-a-service (PaaS) portfolio supported by a variety of cloud services abstracting the complexity of developing applications. Cloud application platforms could be deployment centric or model driven and cater to different types of application requirements (refer to Table 1). This IDC study represents the vendor assessment of deployment-centric cloud application platforms (CAPs) through the IDC MarketScape model. This research is a quantitative and qualitative assessment of the characteristics that explain a vendor's success in the marketplace and help anticipate the vendor's ascendancy. The evaluation is based on a comprehensive and rigorous framework that assesses vendors relative to the criteria and one another and highlights the factors expected to be the most influential to success in the market, both short term and long term. Key findings include:

- PaaS is becoming an overused marketing term, and customers should evaluate vendors providing the best collection of services enabling developers to be most productive in delivering applications. Strong support of mobile and Internet of Things (IoT) needs to be considered while choosing a platform.
- Vendors have different approaches to helping customers meet the growing demand for applications. This IDC research sees some vendors go directly to customers while others deliver solutions through partners. Customers should evaluate regulations before choosing the platform to fulfil business needs.
- The growth of services that can be easily embedded into applications using APIs and SDKs is giving additional mechanisms in delivering value to users. While vendors' support of standards vary, customers should look for solutions that enable composition of applications from a variety of cloud-delivered subscription services, regardless of the source.
- Cloud platform technology is rapidly changing with accelerated efficiency gains, and customers should keep track of solutions that take full advantage of tools like containers and microservices.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

The criteria for inclusion of vendors in this IDC MarketScape analysis included the following:

- Offering should be delivered as a public cloud service and conform with basic cloud characteristics like shared/standard service, solution packaged, self-service, elastic resource scaling, elastic/use-based pricing, ubiquitous (authorized) network access, standard UI technologies, published service interface/API, and efficient support of life-cycle management.
- Offering should directly or indirectly support big data/analytics, social, and mobile capabilities (also part of the 3rd Platform).

- Offering should have been available for public use for at least six months.
- Vendor should have revenue from deployment-centric cloud application platform of at least $1 million in calendar year 2014.

ESSENTIAL BUYER GUIDANCE

The vendors covered here are a subset of the overall platform-as-a-service ecosystem and all offer different value propositions. The PaaS market is rapidly changing and should be continuously monitored for applicability to a customer needs. As demand for applications increases, the main business driver for PaaS solutions is the speed with which a developer can take a concept and deliver value to the user. PaaS buyers should look at specific application needs and the urgency in which these needs have to be fulfilled while making the buying decision that delivers the highest benefit for their circumstances. Some buying considerations are listed here:

- **Supporting services:** Applications are required to accept and manage data streaming from external sources, including the IoT. Mobile device growth provides additional needs for insight into usage patterns that can be leveraged for digital marketing. These application requirements are important features that help deliver business needs and should be taken into account while choosing a development platform.
- **Skills:** For many organizations, developing applications using an entirely new paradigm requires a combination of skills and culture. Cloud technology is still fairly new to organizations, and adoption requires sets of skills typically not found in IT departments. Although platforms reduce complexity, the lack of skills to leverage abstracted infrastructure can slow down building of applications required to digitize business processes. Value from PaaS is obtained from leveraging all aspects of the application development life cycle, and organizations should match their developer skills with the platform they choose.
- **Developer needs:** Developers expect minimum delays while developing applications. Cultural changes are required to empower developers to provision their own infrastructure with complete automation.
- **Standards:** Consuming services provided by multiple cloud service providers is a very efficient way to build applications. Customers look for solutions based on open standards that not only help in connecting diverse services but also make the move from one vendor to another easy.

VENDOR SUMMARY PROFILES

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.

Red Hat

According to IDC analysis, Red Hat is a Major Player in this IDC MarketScape.

Red Hat is a public, open source software company founded in 1993, and the company expanded its portfolio with dozens of acquisitions to now include software and services in the areas of storage, middleware, virtualization, and cloud computing. Red Hat built its PaaS offerings primarily through the acquisition of Makara in 2010; Makara was offered primarily as a public cloud running on Amazon Web Services. OpenShift by Red Hat was built by combining the Makara capabilities with Red Hat

Enterprise Linux (RHEL) and middleware stacks. Red Hat acquired FeedHenry, a mobile application development software vendor, in October 2014.

Red Hat's primary goal with OpenShift is to accelerate application delivery to support the business and provide the technology foundation needed in a DevOps transformation for IT. Red Hat delivers its products as OpenShift Enterprise and OpenShift Online. OpenShift Enterprise is primarily targeted to customers preferring on-premise private cloud software implementations. OpenShift Online targets customers for public cloud services and became a commercial, fully supported cloud service. Since OpenShift Online's launch, Red Hat has continuously introduced multiple new offerings from new premium plans to enterprise-based offerings like OpenShift Dedicated Node Services and OpenShift Dedicated. Red Hat OpenShift goes to market directly through the Red Hat sales force and freemium services via the OpenShift Web site and indirectly through partners.

Red Hat operates in all geographies through sales teams but does not have a breakdown by region.

Red Hat sees its differentiators as being a fully open standards-based open source product, a strong and native support of containers and orchestration, full mobile support, and hybrid cloud architecture.

OpenShift by Red Hat will help develop, test, deploy, and manage applications developed in several programming languages while delivering a full developer workflow experience on an end-to-end stack from the OS (RHEL) to the PaaS layer to the language runtimes and middleware. Red Hat sees Pivotal Cloud Foundry and IBM Bluemix as its main competition in the private PaaS market and Google App Engine, Heroku, and AWS' Elastic Container Service and Beanstalk as its main competition in the public PaaS market.

OpenShift Online is Red Hat's primary public cloud offering. OpenShift Origin is the open source code PaaS base used by OpenShift. The code base is licensed under the Apache License v2 and uses GitHub as its code repository. OpenShift Online is updated with a monthly release cycle, while OpenShift Enterprise gets released every three to four months.

OpenShift Online has a multitiered pricing structure that includes Free, Bronze, and Silver editions. OpenShift Enterprise is sold via an annual software subscription that is priced based on the capacity of the PaaS purchased. Red Hat intends to maintain or grow its DCAP market share by building more enterprise-friendly offerings on OpenShift Online, continuing to build its partner ecosystem, maintaining its open source heritage, and providing a true multicloud offering with strong integration with OpenStack for cloud management.

Red Hat participates in multiple projects and events through open source communities, including Linux, OpenStack, and Puppet. OpenShift innovation is driven in the open source upstream project OpenShift Origin. OpenShift Enterprise 3 incorporates Docker container support along with the Kubernetes orchestration engine recently open sourced by Google. Red Hat is working with Google, Docker, and other members of the open source community to bring the scale of Google, the ecosystem of Docker, and the reliability of Red Hat to the PaaS platform.

Strengths

The Red Hat platform has good strengths in the mobile and security areas. Developers benefit from a wide variety of languages supported. Red Hat also provides strong support for start-ups. Red Hat has been quick to adopt containers and continues to progress toward new orchestration services.

Challenges

Red Hat could improve by supporting a wider range of public cloud infrastructures. Also, Red Hat could increase the number of vendor participants in the OpenShift Origin initiative, though it should be noted that the OpenShift Origin code is pulled from hundreds of upstream communities, including the Docker, Kubernetes, Fedora, and JBoss communities. Red Hat is growing members through OpenShift Commons with more than 150 members and a vibrant partner and community ecosystem.

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 a review board 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.

IDC conducted a *CloudView Survey* of 3,463 respondents, completed in December 2014. Responses from developers and business users to an important question, "Which factors are accelerating your organization's adoption of integrated PaaS services?" in the survey were as follows:

- Developers:
  - Self-service environment – no requisitioning resources
  - Faster to build code, test, iterate
  - Quick access to the best tools – with no overhead
  - Full data portability – no code changes or ownership issues

        - Consistent platform attributes throughout the entire app life cycle
    - Business users:
        - Built-in integration with my SaaS apps
        - Simplifies/improves DevOps process
        - Abstracts the complexity
        - Faster time to iterate and get services running
        - No waiting for backlog in IT development

These responses were used as input to determine the criteria for evaluating capabilities of participating vendors that are listed under the Strategies and Capabilities Criteria section.

For purposes of clarity, IDC broke up revenue into three sizes — over $200 million, from $50 million to $200 million and below $50 million.

The vendors covered in this analysis were specifically picked from among those that delivered their services through a public cloud. They vary from born-on-the-cloud vendors that always delivered their services through the public cloud to legacy vendors that moved from on-premise offerings to delivering platform services through the public cloud. There are vendors whose offerings can be consumed directly from the vendor as well as white labeled and sold through another cloud service provider. All vendors adhered to open source standards. The PaaS market is continuously changing, and this analysis is a point of time reference where the differentiation among the vendors is high but none fall in the contenders or participants categories. IDC expects the consumption and delivery of PaaS to quickly change by technologies like containers and microservices. IDC plans to compare PaaS offerings as the market matures and adoption of these new technologies increase.

Market Definition

Platform as a Service

The PaaS competitive market includes 100% of the revenue of IT capability in the application development and deployment (AD&D) segment of the primary software market when it is composed and delivered as a cloud service. PaaS provides integrated (i.e., made up of multiple discrete software functions) services organized around the tasks of application development and life-cycle management; application deployment; code testing, quality, and application life cycle; data management; and integration when they are provided as a service delivered through public cloud or specifically designed to be included in a private cloud implementation.

Public cloud PaaS is packaged as configurable, turnkey offerings sold directly from IP owners/providers, cloud OEM partners/service providers, systems integrators, and a variety of other mechanisms. When offered with underlying infrastructure, PaaS frequently includes access to system infrastructure capabilities such as workload automation, scheduling, change and configuration management, storage management, security, and network management.

PaaS is segmented into five competitive submarkets that recognize how PaaS is composed and delivered in the cloud. These competitive submarkets are combinations of whole or parts of existing AD&D functional software markets that reflect the most prevalent combinations of integrated functionality based on customer use case, and the most typical supplier offerings, in addition to other market factors such as the primary problem being solved by the service.

All revenue from AD&D functional markets, when they are delivered as cloud services, will be represented in the following PaaS submarkets:

- Cloud application platforms (CAPs)
- Cloud application development and life-cycle services (CADLS)
- Cloud data services (CDS)
- Cloud integration services (CIS)
- Other cloud platform services (OCPS)

Cloud Application Platforms

Deployment-centric CAPs provide a set of abstracted services and tooling focused on application deployment and have a high level of commonality and relevance to the deployment of almost any application, regardless of platform. A CAP enables the deployment of an application as well as managing its ongoing operation. These cloud-based tools can be delivered as either a pre-integrated platform or a suite of tools. Table 1 lists the differences between model-driven and deployment-centric cloud application platforms.

TABLE 1

Characteristics of Deployment-Centric and Model-Driven Cloud Application Platforms

Deployment Centric	Model Driven
Focused on deployment agility and liberation from infrastructure management burdens	Focused on business productivity and agility
Bring your own code	Application development tools and runtimes integrated together
Use your own IDE	Visual modeling is increasingly the norm, but scripting languages often provided
Lower abstraction level	Often end to end, client to server
Strong support for deployment technology	Has range of applicability, restrictive outside the range
Specific support for programming languages and frameworks	Not portable or standardized
Portability and strategic safety	

Source: IDC, 2015

Strategies and Capabilities Criteria

The importance of a firm's characteristics to project success and relevance of the particular issue combined with IDC's opinion about the impact those elements have on the selection of firms implies a unique weighting of these elements when evaluating a firm's overall strategies and capabilities to address market opportunity and realizing market success.

LEARN MORE

Related Research

- *Market Analysis Perspective: Worldwide Platform as a Service, 2015* (IDC #259210, September 2015)
- *IDC's Worldwide IT Cloud Services Taxonomy, 2015* (IDC #258348, September 2015)
- *Worldwide Competitive Public Cloud Platform as a Service Forecast, 2015-2019* (IDC #257391, July 2015)

Synopsis

This IDC study represents a vendor assessment of the public deployment-centric cloud application platform component of the platform-as-a-service market through the IDC MarketScape model. This assessment discusses both quantitative and qualitative characteristics that explain a vendor's success in this market. This IDC MarketScape covers a variety of vendors participating in the deployment-centric subset of the overall platform-as-a-service market. The evaluation is based on a comprehensive and rigorous framework that assesses vendors relative to the criteria and one another and highlights the factors expected to be the most influential for success in the market, both short term and long term.

"Results of IDC's cloud computing research over the past three years show that demand for applications is growing and tools for developers are a differentiator for cloud service providers to meet customer expectations," says Larry Carvalho, research manager, Platform as a Service for IDC. "Customers have to continuously evaluate the effect of new cloud technology on platform services while choosing vendors to meet the evolving business needs. Although we will see changes in the way platform as a service is delivered and adopted, overall growth will stay the same."

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.

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