

FOR IMMEDIATE RELEASE

CONTACTS:

Janessa Rivera
Gartner
+ 1 408 709 8220
janessa.rivera@gartner.com

Robert van der Meulen
Gartner
+ 44 (0) 1784 267 738
rob.vandermeulen@gartner.com

Gartner Says By 2017 Web-Scale IT Will Be an Architectural Approach Found Operating in 50 Per Cent of Global Organisations

Outlook for Web-Scale IT to be Discussed at the Gartner Infrastructure, Operations and Data Center Summit 2014, May 21-22 in Sydney

STAMFORD, Conn., 5 March, 2014 — By 2017, web-scale IT will be an architectural approach found operating in 50 per cent of global organisations, up from less than 10 per cent in 2013, according to Gartner, Inc. Web-scale IT is a pattern of global-class computing that delivers the capabilities of large cloud service providers within an enterprise IT setting by rethinking positions across several dimensions.

"Large cloud services providers such as Amazon, Google, Facebook, etc., are reinventing the way in which IT services can be delivered," said Cameron Haight, research vice president at Gartner. "Their capabilities go beyond scale in terms of sheer size to also include scale as it pertains to speed and agility. If organisations want to keep pace, then they need to emulate the architectures, processes and practices of these exemplary cloud providers."

"Web-scale IT looks to change the IT value chain in a systemic fashion," said Mr Haight. "Data centres are designed with an industrial engineering perspective that looks for every opportunity to reduce cost and waste. This goes beyond redesigning facilities to be more energy efficient to also include in-house design of key hardware components such as servers, storage and networks. Web-oriented architectures allow developers to build very flexible and resilient systems that recover from failure more quickly."

Mr Haight said that open and freely available blueprints of data centre facilities and associated server, storage and networking hardware are lowering costs and disrupting the traditional IT vendor landscape.

"IT organisations have historically had a limited number of vendors from which to source their hardware, whether the need was for servers, storage devices or network equipment. This began to change when large cloud services providers, because of their extreme needs for scale and cost control, began to design and assemble infrastructure components," said Mr Haight. "These devices were different than those sold to traditional organisations, because they did not have some of the basic features often available in commercial products."

Regardless of the cloud services company, a common element among all these devices was an organisational requirement to run an open-source OS, not only to reduce costs, but also to increase the control of IT environments.

This brings several ramifications for the traditional organisation. First, and perhaps most importantly, an open approach provides more options for hardware (and data centre) equipment design and procurement — where scale-out architectures make sense. While Gartner expects that traditional suppliers will provide solutions aligned with these blueprints, new providers will also have offerings. With the server hegemony

broken, organisations will have a chance to leverage the economies of scale designed into these systems — not just from a pricing perspective, but also from an operations expense position. Although this cost is difficult to measure, a new sense of innovation is beginning to pervade the industry that likely will have additional benefits further down the line for large cloud services firms, as well as traditional organisations.

At the same time, loosely coupled, web-oriented architecture (WOA)-based software architectures are enabling development teams to increasingly operate independently, while improving overall application resiliency. IT organisations must rethink how applications are designed if they are to meet the requirements of web-scale IT environments. These requirements include — scaling performance proportionally with the addition of resources, adapting to the needed degree of business change, remaining resilient in the face of infrastructure fragility and being operationally efficient as the size of the system grows.

To achieve these requirements, the architecture of the application and the "glue" or technology that binds multiple web-scale services together must be examined. With respect to the applications, enterprise architects and developers must consider a wide range of approaches to meet web-scale needs.

Taken together, a new application and architectural approach puts organisations on the path of design for operations. This means that having examined how to improve performance and resiliency from the start, IT organisations can begin to rethink their operational support. Combining new software architectures with DevOps-style approaches can become the catalysts to improve an IT organisation's ability to adapt to change. As a result, Gartner predicts that by 2020, 25 per cent of global enterprise CIOs will have had previous involvement in corporate web-scale IT initiatives, up from less than five per cent in 2013.

The influence of DevOps on IT culture, tools, processes and organisational structure is resulting in the acceleration of application delivery and an environment of continuous experimentation.

"DevOps is causing organisations to rethink much of the conventional wisdom of IT operations," said Mr Haight. "Historically, enterprise IT has been focused on managing risk — particularly for companies that reside in regulated industries. However, the major DevOps underpinnings, such as automation, are enabling these same organisations to realise they can be fast and 'safe.' Embracing risk is not as risky as it sounds with a DevOps mindset. Having the architecture of the application being more resilient in the first place enables IT operations teams to implement and support leaner and more agile processes that might otherwise be viewed as inappropriate for conservatively minded organisations."

Detailed analysis is available in the report "Strategic Technology Trend: Web-Scale Singularity Means Goodbye to Conventional IT Wisdom." The report is available on Gartner's web site at <http://www.gartner.com/doc/2661319>.

This research is part of the Gartner Special Report "Top Ten Strategic Technology Trends for 2014." The special report can be viewed at <http://www.gartner.com/technology/research/top-10-technology-trends/> and includes links to reports and video commentary that examine the top technology trends that have the potential to affect individuals, businesses and IT organisations during the next three years.

David Cearley, vice president and Gartner Fellow, will provide additional analysis on these trends during the Gartner webinar, "Top Ten Strategic Technology Trends for 2014" on 12th March at 2 pm and 5 pm GMT. To register for this complimentary webinar, please visit <http://my.gartner.com/portal/server.pt?open=512&objID=202&mode=2&PageID=5553&resId=2659116&ref=Webinar-Calendar>.

Web-scale IT will be further discussed at the Gartner Infrastructure, Operations and Data Center Summit 2014, taking place 21-22 May in Sydney, Australia. More information can be found at

www.gartner.com/ap/datacentre. Members of the media can register by contacting Susan Moore susan.moore@gartner.com. Information from the event will be shared on Twitter at http://twitter.com/Gartner_inc using #GartnerDC

About Gartner Infrastructure, Operations and Data Center Summit

The 9th Gartner IT Infrastructure Operations & Data Center Summit is a community of IT infrastructure and operations and data centre professionals charged with managing and advancing their enterprise's evolving IT infrastructure requirements. IT infrastructure and operational activities are directly impacting an organisation's business more than ever before. IT departments must increase both capacity and availability while delivering operational excellence in a highly demand driven, yet cost constrained world. At the Summit, Gartner analysts will help delegates to manage the increased challenges and disruptions brought about by Social, Mobile, Cloud and Information (the Nexus of Forces) and lead the IT organisation successfully through these changes.

About Gartner

Gartner, Inc. (NYSE: IT) is the world's leading information technology research and advisory company. Gartner delivers the technology-related insight necessary for its clients to make the right decisions, every day. From CIOs and senior IT leaders in corporations and government agencies, to business leaders in high-tech and telecom enterprises and professional services firms, to technology investors, Gartner is a valuable partner in more than 13,000 distinct organisations. Through the resources of Gartner Research, Gartner Executive Programs, Gartner Consulting and Gartner Events, Gartner works with every client to research, analyze and interpret the business of IT within the context of their individual role. Founded in 1979, Gartner is headquartered in Stamford, Connecticut, USA, and has 5,800 associates, including more than 1,450 research analysts and consultants, and clients in 85 countries. For more information, visit www.gartner.com.

#