

Gartner Identifies the Top 10 Strategic Technologies for 2009

Analysts Examine Latest Industry Trends during Gartner Symposium/ITxpo, October 12-16, in Orlando

STAMFORD, Conn., October 14, 2008 — Gartner, Inc. analysts today highlighted the top 10 technologies and trends that will be strategic for most organizations. The analysts presented their findings during Gartner Symposium/ITxpo, being held here through October 16.

Gartner defines a strategic technology as one with the potential for significant impact on the enterprise in the next three years. Factors that denote significant impact include a high potential for disruption to IT or the business, the need for a major dollar investment, or the risk of being late to adopt. These technologies impact the organization's long-term plans, programs and initiatives. They may be strategic because they have matured to broad market use or because they enable strategic advantage from early adoption.

“Strategic technologies affect, run, grow and transform the business initiatives of an organization,” said David Cearley, vice president and distinguished analyst at Gartner. “Companies should look at these 10 opportunities and evaluate where these technologies can add value to their business services and solutions, as well as develop a process for detecting and evaluating the business value of new technologies as they enter the market.”

The top 10 strategic technologies for 2009 include:

Virtualization. Much of the current buzz is focused on server virtualization, but virtualization in storage and client devices is also moving rapidly. Virtualization to eliminate duplicate copies of data on the real storage devices while maintaining the illusion to the accessing systems that the files are as originally stored (data deduplication) can significantly decrease the cost of storage devices and media to hold information. Hosted virtual images deliver a near-identical result to blade-based PCs. But, instead of the motherboard function being located in the data center as hardware, it is located there as a virtual machine bubble. However, despite ambitious deployment plans from many organizations, deployments of hosted virtual desktop capabilities will be adopted by fewer than 40 percent of target users by 2010.

How RealFusion/CET adds value:

Within the scope of the current buzz on ‘server’ virtualization, there are limitations to the benefits that can actually be realized. Factors like recoding, or refactoring, legacy applications to operate in virtual containers and the restrictions on scalability for individual applications for better performance are just a few.

RealFusion/CET extends the current adoption of virtualization technologies to now include ‘dynamic application virtualization’ – enabling businesses to improve scalability of applications and services without the need for risky, and expensive, code rewrites resulting in the ability for businesses to dramatically improve IT infrastructure utilisation and, finally, fully realise the potential of grid and cloud computing.

Imagine the benefits in having your existing/legacy applications being able to execute across more than the originally designed for core count in a true multi-core/multi-socket environment! IT administrators can now deliver genuine scalability, improved reliability and performance benefits – *with minimal changes* to existing legacy (thread-limited) applications.

Cloud Computing. Cloud computing is a style of computing that characterizes a model in which providers deliver a variety of IT-enabled capabilities to consumers. The key characteristics of cloud computing are 1) delivery of capabilities “as a service,” 2) delivery of services in a highly scalable and elastic fashion, 3) using Internet technologies and techniques to develop and deliver the services, and 4) designing for delivery to external customers. Although cost is a potential benefit for small companies, the biggest benefits are the built-in elasticity and scalability, which not only reduce barriers to entry, but also enable these companies to grow quickly. As certain IT functions are industrializing and becoming less customized, there are more possibilities for larger organizations to benefit from cloud computing.

How RealFusion/CET adds value:

RealFusion/CET enables businesses to reap the benefits of cloud computing (scalability, reliability, and improved performance) without the need to have their business critical applications and data reside outside of their secure environment.

Furthermore, users of RealFusion will not be required to recode their existing applications in order for these applications to operate in and benefit from the cloud computing environment.

Users of RealFusion can now architect and build robust ‘Private Clouds’ where application virtualization delivers highly-scalable and reliable applications, with massively improved performance – without any re-coding or redevelopment.

Servers — Beyond Blades. Servers are evolving beyond the blade server stage that exists today. This evolution will simplify the provisioning of capacity to meet growing needs. The organization tracks the various resource types, for example, memory, separately and replenishes only the type that is in short supply. This eliminates the need to pay for all three resource types to upgrade capacity. It also simplifies the inventory of systems, eliminating the need to track and purchase various sizes and configurations. The result will be higher utilization because of lessened “waste” of resources that are in the wrong configuration or that come along with the needed processors and memory in a fixed bundle.

Web-Oriented Architectures. The Internet is arguably the best example of an agile, interoperable and scalable service-oriented environment in existence. This level of flexibility is achieved because of key design principles inherent in the Internet/Web approach, as well as the emergence of Web-centric technologies and standards that promote these principles. The use of Web-centric models to build global-class solutions cannot address the full breadth of enterprise computing needs. However, Gartner expects that continued evolution of the Web-centric approach will enable its use in an ever-broadening set of enterprise solutions during the next five years.

Enterprise Mashups. Enterprises are now investigating taking mashups from cool Web hobby to enterprise-class systems to augment their models for delivering and managing applications. Through 2010, the enterprise mashup product environment will experience significant flux and consolidation, and application architects and IT leaders should investigate this growing space for the significant and transformational potential it may offer their enterprises.

Specialized Systems. Appliances have been used to accomplish IT purposes, but only with a few classes of function have appliances prevailed. Heterogeneous systems are an emerging trend in high-performance computing to address the requirements of the most demanding workloads, and this approach will eventually reach the general-purpose computing market. Heterogeneous systems are also specialized systems with the same single-purpose imitations of appliances, but the heterogeneous system is a server system into which the owner installs software to accomplish its function.

How RealFusion/CET adds value:

RealFusion/CET fully supports an 'appliance style' implementation. In fact, RealFusion can be installed onto a heterogeneous system along with any NMS to deliver a more comprehensive solution.

The two main components of RealFusion deliver: (i) dynamic application virtualization, allowing any Java legacy application to be virtualized across any number of processing cores/sockets – delivering all of the associated benefits, and (ii) a robust integrated development environment for business (who chose to), to re-design, or re-develop their existing applications to take advantage of new, more powerful multi-core/multi-socket servers being shipped by hardware vendors.

Social Software and Social Networking. Social software includes a broad range of technologies, such as social networking, social collaboration, social media and social validation. Organizations should consider adding a social dimension to a conventional Web site or application and should adopt a social platform sooner, rather than later, because the greatest risk lies in failure to engage and thereby, being left mute in a dialogue where your voice must be heard.

Unified Communications. During the next five years, the number of different communications vendors with which a typical organization works with will be reduced by at least 50 percent. This change is driven by increases in the capability of application servers and the general shift of communications applications to common off-the-shelf server and operating systems. As this occurs, formerly distinct markets, each with distinct vendors, converge, resulting in massive consolidation in the communications industry. Organizations must build careful, detailed plans for when each category of communications function is replaced or converged, coupling this step with the prior completion of appropriate administrative team convergence.

Business Intelligence. Business Intelligence (BI), the top technology priority in Gartner's 2008 CIO survey, can have a direct positive impact on a company's business performance, dramatically improving its ability to accomplish its mission by making smarter decisions at every level of the business from corporate strategy to operational processes. BI is particularly strategic because it is directed toward business managers and knowledge workers who make up the pool of thinkers and decision makers that are tasked with running, growing and transforming the business. Tools that let these users make faster, better and more-informed decisions are particularly valuable in a difficult business environment.

Green IT. Shifting to more efficient products and approaches can allow for more equipment to fit within an energy footprint, or to fit into a previously filled center. Regulations are multiplying and have the potential to seriously constrain companies in building data centers, as the effect of power grids, carbon emissions from increased use and other environmental impacts are under scrutiny. Organizations should consider regulations and have alternative plans for data center and capacity growth.

“A strategic technology may be an existing technology that has matured and/or become suitable for a wider range of uses,” said Carl Claunch, vice president and distinguished analyst at Gartner. “It may also be an emerging technology that offers an opportunity for strategic business advantage for early adopters or with potential for significant market disruption in the next five years. Companies should evaluate these technologies and adjust based on their industry need, unique business needs, technology adoption model and other factors.”

How RealFusion/CET adds value:

RealFusion/CET enables business to now receive and benefit from the full processing power of their existing and new multi-core/multi-socket servers – allowing them to do more with less.

An IT environment utilizing RealFusion/CET will be able to run more applications across fewer servers. By taking advantage of RealFusion’s application virtualisation capabilities, IT administrators can maximize ROI in both existing server infrastructure and any potential new server technology acquisitions.

Being able to process your existing or new applications, better and faster on the same (existing) number of servers or fewer (new-technology) servers, means less floor space is required, less air-conditioning and electrical power is required, all resulting in a reduced carbon footprint and a greener IT environment.

To view the original press release: [Gartner Identifies the Top 10 Strategic Technologies for 2009](#)