

A close-up photograph of a hand reaching out from the left side of the frame. The hand is positioned as if about to grasp something. The background is a bright blue sky with scattered white clouds. The lighting is natural, highlighting the texture of the skin and the length of the fingers.

Less Risk, More Reward

With its portfolio of fully tested EMC Proven Solutions, EMC is helping to take the guesswork out of your journey to the private cloud.

For companies today, the need to manage costs and increase performance and flexibility in IT are nothing new. But those requirements continue to increase based on application workloads—and that is driving fundamental change in the way IT departments think about and use technology.

“Many companies are trying to bridge the gap between applications and infrastructure—to move toward managing IT with an application-centric view, rather than having siloed groups and systems

organized around storage, servers, applications, and so forth,” says Todd Pavone, senior vice president, Information Infrastructure Solutions, at EMC.

Pavone explains that this shift is part of the ongoing evolution of data centers—one that has taken IT from the siloed environments of a decade ago, through consolidation and on to today’s focus on virtualized infrastructures. Now, IT professionals are looking toward the next stage in this evolution: the private cloud, and a model based on managing integrated sets of business services rather than IT assets. “This service-delivery model makes the integration of applications and infrastructure absolutely critical,” he says.

“IT professionals understand the value of moving toward a cloud computing model,” Pavone says. “But they want to make that journey with minimal risk and cost, using integrated solutions available today that they can deploy quickly and that provide future-proof technology. IT executives really don’t want any surprises as they adopt new technologies.”

With that in mind, EMC® Proven™ Solutions are designed to help companies move along an evolutionary path to cloud computing. As the name suggests, these are complete, tested solutions that combine best-in-class technology, application integration, and the expertise needed to successfully implement and use an integrated solution. With EMC Proven Solutions, companies don’t have to put together various point solutions or deal with the complexity of assembling untried technologies. Instead, they can move forward to transform IT operations smoothly while reducing complexity, increasing efficiency, and reducing time to value.

Putting Solutions to the Test

EMC Proven Solutions bring together the technologies of EMC and other hardware and software firms to create complete, documented environments that target specific IT and business needs. For example, there are EMC Proven Solutions to enable backup and recovery, disaster recovery, performance and scalability optimization, and archiving. These solutions deliver

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benefits such as improved performance, optimized technology usage, and, of course, increased efficiency of IT assets and reduced operational costs. And each solution can be used as a building block to help companies move forward on the journey to cloud computing at their own pace, helping to reduce risk and increase ROI while transforming IT.

The “proven” aspect of these solutions comes from the rigorous testing they get from EMC. The company creates a complete environment for a given solution, testing it for performance, scalability, and functionality, and clearly demonstrating that it can operate in a real-world setting. EMC identifies the solution’s breaking points,

determines the optimal configurations, and ensures that the appropriate management tools and integrated support are available. These efforts involve EMC technology professionals worldwide and the expertise and resources of the company’s global solution centers located in the U.S., Ireland, Austria, China, and Singapore.

EMC Proven Solutions also encompass the knowledge surrounding the technology. “We not only validate these solutions, we also help companies understand how to implement them effectively,” says Pavone. Each solution includes detailed best practices, reference architectures and implementation, and support procedures. Armed with this information, EMC Global Solutions experts can work closely with customers and fully support each solution. “We can provide demonstrations and workshops, and our experts can spend time with customers to help them fully understand the solutions,” Pavone adds. That approach is especially valuable in helping the applications/database teams and the infrastructure teams realize how the solution helps both groups minimize risk—and in bridging the gap between the two areas.

Perhaps most important, these solutions are developed through a customer-centric process—that is, they are based on real customer environments. “We start with the customer use case, not the technology,” says Pavone. “Then we determine what the right technologies are to support that use case and build integrated solutions to meet that customer need.” EMC Proven Solutions teams develop this customer perspective through a variety of mechanisms, such as meetings with

customers' enterprise users and IT staff, as well as with EMC consultants and technology partners that work regularly with customer companies.

Targeting the Oracle Environment

Oracle is a key focus area for such efforts, and there are now dozens of EMC Proven Solutions designed to help Oracle users. These fall into several categories, such as security and management, but three areas are particularly important for Oracle users that are evolving toward cloud computing:

- **Tiered/unified storage.** To help optimize Oracle database performance and management, EMC provides a single architecture for OLTP, development/test, data warehousing, backup, and archival storage; combines multi-protocol connectivity and energy efficiency to reduce costs; and supports Oracle deployments in both "scale-up" and "scale-out" computing models.

- **Virtual infrastructure.** EMC Proven Solutions are designed to speed the development, testing, and deployment of virtualized applications; enable the transfer of data within or across storage platforms with applications online; and accelerate the refreshing of the storage infrastructure—all of which helps increase efficiency.

- **Business continuity.** EMC Proven Solutions provide tiered data protection with application-level consistent recovery; empower database administrators with the automated use of LAN-free replication; reduce complexity by using common software to protect all applications; and leverage network efficiencies and data deduplication to reduce disaster recovery costs.

Like all EMC Proven Solutions, the Oracle-specific offerings are based on customer use cases—and here, EMC

has a large pool to draw on, with EMC and Oracle serving some 70,000 joint customers. EMC also draws on the insights developed through its long



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relationship with Oracle, which encompasses a number of joint solutions and the operation of a joint service center.

EMC also looks to its extensive experience in using Oracle to run its own business. EMC's internal IT group operates one of the largest Oracle implementations in the world—and EMC Proven Solutions teams regularly tap into that group's knowledge. "EMC primarily runs its business on Oracle

apps," says Pavone. "So we work closely with EMC IT to develop our best practices."

EMC operates more than 170 Oracle application modules, as well as some 800 Oracle databases, and like many companies, it has been seeing rapidly growing workloads in those areas. One option was to completely upgrade the data center, but EMC decided instead to rethink its IT architecture. Through the use of consolidation and virtualization and new approaches to backup, replication, and data deduplication, EMC was able to avoid that large data center upgrade cost. The effort provided a low-risk way to increase availability and performance, while avoiding \$74 million in capital expense. Such improvements were recognized by Oracle, which gave the effort its "Enable the Eco-Enterprise" award based on operating expense savings totaling \$12 million in power, cooling, and space achieved by EMC.

With solutions based on such real-world experience, EMC is helping companies bridge that traditional gap between IT infrastructure and applications—and build a solid foundation for cloud computing. "These are tested, documented, and demonstrable solutions, backed up by a clear understanding of best practices," says Pavone. "This approach helps customers implement solutions quickly and do it right the first time. It provides a way to mitigate risk and bring in new solutions in a predictable, repeatable, and accelerated manner—which is critical as companies evolve their approaches to IT." •

For more information on EMC Solutions for Oracle, go to www.EMC.com/oraclesolutions.