



Part the Clouds: Find the True Business Value

While there is a lot of needless hype and confusion around cloud, the simple fact is that cloud will fundamentally transform the way many companies do business.

Cloud can be seen as an inflection point much like the introduction of the internet 20+ years ago, which gave end-users access to a universe of resources beyond their walls. Like the Internet, cloud can extend the reach of both businesses and individuals, giving them access to vast amounts of computing power without the capital investment and infrastructure previously needed. It will be transformational because it will allow organizations to achieve more aggressive goals and increase their competitive advantage, and this in ways that were once too expensive or too difficult to achieve. For end-users it will increase mobility, collaboration and productivity.

For some companies, the move to cloud will be a natural progression or evolution; other companies will leapfrog and take a revolutionary path. Some will choose isolated solutions to meet specific business needs, while others will move their entire IT infrastructure to the cloud. With the growth of cloud services and opportunities, a decision point is in the making that will require organizations to choose which direction to go.

Our Definition of Cloud

Simply put Cloud computing increases business agility by offering access to a pool of computing resources (either on or off-premise) through the network. Resources can be easily turned on or off as needed, saving time, conserving costs and decreasing time to market for organizations. End-users benefit from on-demand self-service, improving connectivity and productivity.

A central benefit of cloud computing is the ability to accurately match IT services to the needs of the user. Cloud computing drives automation. IT staff can quickly adjust provisioning to ever-changing business needs, spending less time on routine maintenance and more time, talent and energy on innovations to help their organizations meet strategic goals.

While Cloud computing has been compared to a utility, which sells you power on demand, a more useful analogy might be that of the vehicle rental industry. In today's world, you can rent or lease anything from a tiny sub-compact to a giant 18-wheeler. In some cities, you can sign up for Go-Car service, which lets you pick up a car without an advance reservation, use it for a few minutes or hours, then drop it off when you're done. You get billed only for the actual time you are driving the car. Or you can lease a vehicle for several years. The range of vehicles and terms of service are nearly endless, each designed to fit a particular use and situation.

The reason that this variety exists is that the industry has responded to customer needs. In the beginning, people bought cars and used them until they wore out or until a new model came along that they liked better. That worked for a while, but when customer needs expanded, a new industry was created to give more flexibility in the use of vehicles. Cloud computing is the IT industry's response to the expansion of customer needs. Like the auto rental industry, cloud computing gives customers the ability to pick their vehicles and length of use.

A Cloud for Every Organization

How a company uses cloud computing depends on the type and size of the company and how its IT currently handles business processes. For a large global company with regional branch offices, this might mean centralizing systems in a cloud data center to unify communications, eliminate redundancy and improve employee productivity. With cloud-based virtual desktops, all data and applications can be housed in a central data center, ensuring that sensitive files are available for use anywhere they are needed but are not stored on devices that can be lost or stolen. It provides a revolution in both security and flexibility.

For an enterprise that is running out of data center space and facing issues with power and cooling, an off-site cloud hosting service can allow fast expansion without using valuable datacenter space. For a small business without the capital to invest



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in hardware, software and a dedicated staff, this might mean the difference between status quo and growth. And for a start-up company, it might mean building an IT infrastructure overnight and competing successfully with much bigger players.

The important thing to know is that cloud will mean something different to each organization. At Dell™ we see the value of cloud as evolving IT-as-a-Service (ITaaS) to enable greater responsiveness to business needs while driving greater enterprise efficiencies. We see this as a process, a journey to cloud with many entry points and many paths to take. From our point of view, a successful cloud journey means helping each organization find the solution that allows it to best meet its business goals.

Can Cloud Make Good on the Promise of Faster, Cheaper, or Better?

Cloud offers the possibility of greater responsiveness to business needs at lower cost. The heart of the cloud concept is a network of shared resources – hardware, software and infrastructure – linked together and communicating seamlessly. Data processing and storage capacity can be scaled up or down almost instantaneously, giving enormous flexibility. If wise decisions are made, cloud can deliver on all three promises.

An important part of cloud's "faster and cheaper" promise is the ability to quickly purchase the services needed – sometimes in seconds – and then turn off the services just as quickly. This allows an organization to make efficient use of IT dollars. Instead of investing capital in servers and infrastructure that will rarely be used to full capacity, cloud enables rapid expansion and contraction using only operating funds. That removes a huge amount of risk from many business ventures, and saves capital dollars for other critical needs. Some examples are:

- **College Enrollment.** At the start of every term, a university faces a sudden burst of activity that requires enormous server capacity. But in the months between enrollments, that capacity sits idle. The ability to use a public cloud means a university can meet its seasonal needs without investing in expensive IT hardware and infrastructure that it doesn't need year-round.
- **Start-up Company.** A public cloud-based IT infrastructure can be installed almost overnight without investing capital. That means a company can hit the ground running and focus on core business processes without the risk or distraction of building its own data center.
- **Software Company.** A cloud-based "software as a service" application can rapidly expand the number of users without incurring the manufacturing costs of CDs and packaging. And users can take advantage of new updates without the hassle of buying a new program and installing it on their computers. From tax preparation software to enterprise-level financial and administration applications, vendors are rapidly moving to cloud-based delivery of their products.
- **Federal Government.** Many Federal agencies are moving some functions to the cloud, driven by cost. Recovery.gov, Treasury.gov and FCC.gov are all hosted by cloud vendors, in part because the government data centers hosting these sites were under utilized. Moving them to the cloud will cost less than maintaining data centers dedicated to their use.

Cloud – Makes it Better

Not all cloud solutions, however, are necessarily faster or less expensive. Sometimes, the driving need is to achieve goals that aren't possible using traditional data centers. Virtualized desktop infrastructure can be managed more easily in a cloud environment and can offer greater flexibility of access. Virtual desktops residing in a cloud can allow end users to log on using a wide array of mobile devices. IT staff can be freed from routine maintenance and redeployed to innovation and strategic projects.

For example, a company can provision a cloud VDI and employees can access a shared pool of data and applications from anywhere in the world. An employee can create a confidential document in the home office, fly overseas, and pull up that same document from any device that has Internet access. No need to carry sensitive data on a laptop that can be lost, stolen or destroyed. The data stays in the secure cloud, protected from intrusion.

Cloud solutions also can bring enormous computing power in short bursts to allow analysis of large amounts of data, to identify patterns and bring answers to difficult questions. This is the "better" part of the promise – the ability to do things that couldn't be done before – and creates an almost-priceless return on the investment you make. Industries across the board are finding ways to use the cloud to "better" their businesses:

- **Health Care.** Hospitals have long collected enormous amounts of data from patients. Locked in that data are patterns that can help hospitals discern in advance which patients are at risk for infection or other complications that cause harm and waste resources. Cloud computing has given medical providers the key to unlock those patterns. The data can be pulled into a cloud where massive bursts of computing power can apply algorithms to produce real-time risk predictions, allowing medical staff to act quickly to find the problems and improve care. What once was a maze of useless data becomes a life-saving tool. That is a return on your investment that is measured in human lives, not dollars.
- **Insurance.** Cloud-based web tools let customers apply for policies online, saving labor costs for the company and improving convenience for the customer. And an underwriter analyzing a prospective homeowner's policy can use a cloud-based resource like Virtual Earth to see if a home is in a flood plain or the history of wildfires and other natural disasters in the area.

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An underwriter hundreds of miles from the home, who isn't familiar with the local geography and history, can use cloud-based resources to write an accurate policy.

- **Travel.** One of the first and most pervasive uses of the cloud concept was in the travel industry. The Sabre airline booking system, used by travel agents since the early 1960s, was arguably the first widely-used cloud-based application. Now, the vast majority of air travel and hotel reservations are booked directly by consumers through an array of sites. And cloud-based websites now help travelers book rooms at tiny bed-and-breakfast inns located in remote areas of the world, helping innkeepers turn their dreams into a viable business.

The Journey to Cloud

Where you begin the cloud journey depends on where your company is now and where you intend to go. Major transformation of a large enterprise is seldom accomplished in one giant leap. Like NASA taking America to the moon, such a journey is accomplished in stages, with many intermediate goals to meet.

Ask the Right Questions

Making wise choices during the journey often means asking the right questions. That is not as easy as it sounds. If you are not sufficiently versed in all the options and pitfalls you'll face, you might not know what questions need to be answered. It is critical to have a knowledgeable partner on the journey who is not wedded to any one solution or provider.

- How can Cloud change current business practices?
- How can the adoption of cloud help alleviate data center crowding?
- What ROI is expected when moving to the cloud? What about business value?
- What should go in a public cloud and what should be kept on-premise?
- How will the adoption of cloud affect my IT staffing plans?
- What seasonal or cyclical needs require temporary compute capacity? How will cloud improve Service Level Agreements for end-users?
- How do I migrate legacy applications to the cloud?
- Where to start? Are there smaller projects that can be done now?

Every question represents an option, and you need to have a neutral expert to guide you through the process.

Dell can guide you through the process of learning, testing, and using cloud computing to get your company to the business outcomes you need. Any technical discussion of cloud services has to be preceded by a discussion of the strategic business goals of the company. How can you do your business better? It's not just about cutting costs or being more flexible, it's about a more effective way of doing business.

At Dell we see three major steps in the journey:

- **Investigate** – Educate yourself and your management about cloud and the way it is used to create better business outcomes.
- **Experiment** – Test the use of the cloud in limited ways to see how it works to improve your business processes.
- **Adopt** – Take an evolutionary approach to widen the use of cloud capabilities to meet a business need or create opportunity. Or you can take a revolutionary approach and build your entire IT infrastructure in the cloud.

Each of these steps represents a major advancement toward making full use of cloud capabilities. You can – indeed must – take these steps at the speed that is right for your company.

A Partner for the Journey

Successful exploitation of the benefits of the cloud requires more than a one-time fix. Moving all or part of your IT services to the cloud is a complex process involving many underlying technologies. Missteps can be expensive – both financially and in lost opportunities.

To be successful, you will need a partner with the knowledge and experience to be a guide and an honest broker in the process – a partner with a track record of successful technology partnerships.

Dell has a large number of enterprise customers with whom we work daily on applying cloud technology to business needs. That experience, and the lessons learned, can be put to use for companies of all sizes and all industries. And Dell offers the hardware, software, and services, providing a one stop shop for your cloud solutions. We offer customers choice with open standards technology.

To expand our ability to offer effective guidance for our customers, Dell's brings to the table strategic partnerships with VMware, and Microsoft and acquisitions including Perot, Boomi, Secure Works and Scalent. Perot Systems, now a part of Dell, brings a legacy-free environment not tied to specific hardware solutions and brings a strong vertical expertise. Dell brought a similar legacy-free approach to the marketplace in the 1980s and appreciates how important this can be in playing the role of independent broker for companies developing innovative business solutions. Our technology consultants work from a position of vendor-neutrality, seeking the best solution for each business need independent of the name on the box.

Dell is building one of the most comprehensive offerings of cloud technology in the marketplace. But what is more important, Dell can be a trusted partner in the complex process of matching your business needs to the technology that can make your organization more innovative and effective.

Is Cloud Here to Stay?

Is this Cloud thing a fad? Or is there real business value in this IT model? Can I just ignore the whole thing?

If you answered “yes” to that last question, you and your company are in a rare environment. For the vast majority of IT professionals, cloud computing is now a fact of life, or it will be in the very immediate future. Almost every industry is adopting some aspect of cloud, and to ignore it as a fad or to wait to “see what happens” will mean that you fall behind.

There are just too many advantages to using cloud for a company to safely sit on the sidelines and continue to do business as usual. At the very least, IT professionals must inform themselves of the technology and options in the marketplace, and companies must analyze their business processes to see where cloud can give them an advantage. Because your competitors are doing so.

Granted, some industries will move faster than others, and the benefits of cloud will be more readily felt in some environments than others. But the future of IT is agility, mobility and flexibility, cloud computing is the vehicle which will drive those benefits.

For more information about any of our service offerings, please contact your Dell representative or visit dell.com/services.

