

Secure enterprise-class cloud when you need it, as you need it.



Secure enterprise-class cloud

Common cloud infrastructures lack the inherent security required by enterprises, leaving them vulnerable. Dell[™] Cloud with VMware[®] vCloud Datacenter Service offers a complete framework with multiple layers of virtual and physical security. It also includes a comprehensive framework for securing networks, applications, data and endpoints in highly secured Dell data centers. In addition, Dell SecureWorks[™] active monitoring delivers information security services powered by proprietary technology for global threat visibility. Dell also offers an optional data encryption service which is closely integrated with Dell Cloud with VMware vCloud Datacenter Service.

Why Dell Cloud?

Dell has experience building private clouds for its customers with a large install base utilizing VMware as the foundation. Dell is uniquely positioned to deliver an endto-end cloud solution based on VMware virtualization.

Dell's public cloud offering provides an evolutionary IT model unifying private and public resources through hybrid cloud, with the management,



functionality and security needed for a large, enterprise environment.

"I don't want to be

in the data center

business. I want to

leverage a service

provider like Dell to

help me easily scale my

A cloud for every organization

Dell Cloud with VMware vCloud Datacenter Service is a multi-tenant Infrastructureas-a-Service (IaaS) hosted in secured Dell data centers. For large enterprises, the

> Dell Cloud provides you with on-demand computing capacity as an extension to your existing data center with the same benefits and IT efficiencies you deliver in your own VMware virtualized

infrastructure. For medium and small businesses, the Dell public cloud enables you to access similar computing capabilities as large organizations without having to build and maintain your own datacenter.

Together, Dell and VMware are changing the way you deliver IT services. Public, private or hybrid cloud - which works best for your organization? Dell Services can help match your business needs to the right technologies.

Realize the benefits

Leverage your current investments in VMware virtualization as you evolve your operations to benefit from cloud computing. Our cloud solutions provide the software, hardware and services to become an extension of your data center environment allowing you to transition existing VMware virtualized workloads to the cloud and manage them accordingly.

• Agility and flexibility.

Pooling of servers, networks and storage increases agility, reducing the time and capital needed to stand-up and maintain traditional physical environments. Move to the cloud at your own pace. You provision and consume computing capacity according to your own requirements, as you need it, when you need it.

- Elasticity and responsiveness. Elastic capacity allows you to quickly respond to new business opportunities, seasonal/cyclical trends and other fluctuations in need of compute resources. The service makes it easier to port your applications to the Dell public cloud in order to streamline your deployment process and leverage ondemand computing.
- Compatible and familiar. VMware's vCloud Connector allows you to take advantage of hybrid capabilities using a familiar graphical user interface to move workloads between private and public as needed. Use of the same VMware technology across private and public cloud creates a compatible "Virtual Data Center" enabling application portability across clouds.
- Available and reliable.

The Dell Cloud with VMware vCloud Datacenter Service is built with the necessary redundancy and ruggedness for optimal availability. The comprehensive management layer monitors the dynamic pools of hardware, software, storage and network resources, thereby providing automated fail-over and maximizing service reliability.

business. The way the service is set up, it's just point and click. It's very, very easy." Oz Yosef

CEO, Gratifón S.A.

Enterprise-class security services



Complete Cloud Security Solution

Dell Cloud with VMware vCloud Datacenter Service offers a complete framework for securing networks, applications, data and endpoints in highly secured Dell data centers. From the small business to the larger enterprise, Dell has the expertise and portfolio of offerings to deliver a worldclass security solution for all business needs, even those with the most complex security landscapes.

Multiple layers of disparate defenses are used to protect customer information. Dell has taken stringent measures to address every security concern and protect customer data. The entire cloud infrastructure is strictly controlled and monitored 24x7 to detect anomalous events or traffic patterns that might indicate an attempted data breach.

Data Center Infrastructure Security

Dell SecureWorks provides infrastructure security and monitoring for Dell Cloud with VMware vCloud Datacenter Service. The security operations center (SOC) provides 24 x 7 x 365 monitoring of the infrastructure firewalls, intrusion detection/prevention systems (IDS/IPS), vCloud Director, web application firewalls and various system logs. Dell SecureWorks maintains a wealth of deep security expertise and global threat intelligence.

Dell's multi-tenant data centers are designed to support and protect enterprise-level operations by delivering a comprehensive perimeter network security for virtual environments. In addition to network segmentation, server hardening, firewalls and intrusion prevention systems, Dell SecureWorks provides real-time threat monitoring and vulnerability scanning of the cloud infrastructure. As more data and applications move to the cloud, Dell SecureWorks manages the security and risk concerns. More information on Dell SecureWorks is available at dell.com/ secureworks.

The Dell U.S. datacenters hosting the Dell Cloud with VMware vCloud Datacenter Service are audited annually to the SAS 70 Type 2 / SSAE 16 Type 2 standards and maintain ISO/IEC 27001 certification.

Data Encryption

Trend Micro data encryption and key management is an optional service available to Dell's cloud customers for an additional charge. The flexible security platform enables users to manage encryption keys and protect data across a broad spectrum of operating environments. Industrystandard AES encryption (user selectable to 256-bits) is used to encrypt data, thereby making it unreadable to those without access to the encryption key. It keeps data safe via a simple, patent-pending, policy-based key management process that authenticates the identity and integrity of servers requesting access to information. Encrypted data is stored within Dell's secure infrastructure: however, the encryption keys are stored offsite with Trend Micro and kept and maintained by the customer. Dell and Trend Micro will not have access to the customer's encryption keys or secure data.

U.S. rates

Two models of cloud consumption

PayGo is a "pay per use" model where computing is charged at an hourly rate for the amount of resources consumed, with no long term commitments. This is a flexible option for those who have less predictable workloads or seasonal peaks in compute demand.

Reserved offers a monthly rate that can provide significant savings over PayGo, especially when compute resources are being used for an extended period of time. A monthly rate is charged for the amount of resources reserved and requires a 12-month commitment. This a great option for those who desire predictable monthly charges to fit a budget or have steady workloads. For large production workloads that require extensive computing resources, Dell has a dedicated server offering that is also available.

Depending on your needs, you have the flexibility to choose from either or both of these models.

Example pricing for 10 Virtual Machines (VMs)

Each VM = 2vCPU, 4GB RAM, 100GB HD plus Dell ProSupport[™], 50GB Internet out

	Reserved	PayGo
Hourly rate	N/A	\$4.48
Monthly rate	\$1,932	\$3,267*

	Reserved	PayGo	
	Compute by the month	Compute by the hour	
vCPU	\$27.60 per vCPU / month	\$0.055 per vCPU / hour	
RAM	\$27.60 per GB / month	\$0.070 per GB / hour	
Basic Storage	\$0.18 per GB / month	\$0.30 per GB / month	
High Performance Storage	\$0.42 per GB / month	N/A	
Internet Bandwidth (out)	0 - 100 GB included	\$0.24 per GB / month	
	Above 100 GB \$0.24 per GB / r	nonth	
Internet Bandwidth (in)	No charge		
Optional - Data Encryption	\$120 per Key / month		
Optional - VM Image Backup	\$3.60 per	\$3.60 per GB / month	
ProSupport 24x7 Service	inc	included	
SecureWorks Network Monitoring	inc	included	
vShield Security	inc	included	
Windows OS Template (WS2008, W	S2010) inc	cluded	
SUSE Linux OS Template	inc	cluded	
10 IP Addresses	inc	cluded	

Additional cloud service options

Data Encryption Service offers AES (user selectable to 256-bits) data encryption and key management with offsite encryption key storage.

VM Image Backup protects data and information assets contained within virtual machines and vApps. It is optimized for cloud environments by protecting virtual platforms and eliminating the need for 3rd party backup utilities and agent-based solutions.

Canada rates

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Example pricing for 10 Virtual Machines (VMs)

Each VM = 2vCPU, 4GB RAM, 100GB HD plus Dell ProSupport[™], 50GB Internet out

	Reserved	PayGo
Hourly rate	N/A	\$4.70
Monthly rate	\$2,030	\$3,428*
* PayGo monthly rate assumes 730	hours / month	

	Reserved	PayGo	
	Compute by the month	Compute by the hour	
vCPU	\$29 per vCPU / month	\$0.055 per vCPU / hour	
RAM	\$29 per GB / month	\$0.075 per GB / hour	
Basic Storage	\$0.19 per GB / month	\$0.31 per GB / month	
High Performance Storage	\$0.44 per GB / month	N/A	
Internet Bandwidth (out)	0 - 100 GB included	\$0.25 per GB / month	
Above 100 GB \$0.25 per GB / month		month	
Internet Bandwidth (in)	No charge		
Optional - Data Encryption	\$125 per Key / month		
Optional - VM Image Backup	\$3.80 per GB / month		
ProSupport 24x7 Service	inc	included	
SecureWorks Network Monitoring	inc	included	
vShield Security	inc	included	
Windows OS Template (WS2008, W	S2010) inc	cluded	
SUSE Linux OS Template	ind	cluded	
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Additional cloud services

Cloud Consulting

Dell Cloud Consulting helps organizations fully unlock the potential of cloud computing by delivering expert guidance from project concept to completion. It includes end-to-end consulting services to help define and implement the most appropriate solutions, tailored to meet a variety of needs and investment levels. Cloud Consulting brings together Dell IP, products, solutions and services in a pragmatic fashion with capabilities across the full customer cloud lifecycle: **Cloud Strategy Workshop**, **Assessment**, **Design**, **Implementation and Management/Support**.



Managed Cloud Services

Dell Managed Cloud Services streamline and optimize your cloud infrastructure with 24x7 proactive monitoring and alerting, issue remediation and ongoing maintenance. Additional features include on-demand and recurring reports for trending analysis, a designated Delivery Manager for escalations, and a self-service portal for easy online tracking of performance, incidents and service requests.

Application Migration Services

Dell Application Migration Services help businesses increase their agility and reduce their dependency on complex and costly proprietary platforms including:

- Analyze, size, migrate, test and deploy business applications to multiple platforms
- Assistance in establishing automated, self-service portals for provisioning of non-production application environments
- "Safely" migrate application workloads from UNIX or existing x86 to Dell Cloud platforms.

"Cloud is not a destination or singular path, but a transformation that places IT squarely at the center of the enterprise as both a leader and enabler of value-creation."

> Michael Dell Founder, Chairman & CEO

Dell Boomi - application integration for the cloud

Dell Boomi, the first and only application and data integration platform built in the cloud, integrates data between applications, automates business processes, and provides real-time visibility to enterprise information so businesses can make faster, more informed business decisions. Dell Boomi provides this integration at a greatly reduced effort and cost to both implement and maintain. To learn more, please visit www.boomi.com.



Modernization Services for SAP

Dell Modernization Services for SAP helps organizations fully unlock the potential of emerging technologies such as cloud computing for SAP® applications by delivering expert guidance from project concept to completion. It includes end-to-end consulting services to help assess, define and implement the most appropriate solutions, tailored to meet a variety of

needs and investment levels. The services portfolio includes the following:

- Dell Modernization Assessment for SAP develop a roadmap to migrate, upgrade and enhance your SAP landscape
- **Dell Cloud for SAP** agile, flexible infrastructure offered in pay per use model
- Dell Services for SAP HANA design, build and run services for SAP In-Memory database technology
- Dell Mobility for SAP mobile SAP application blueprint & development services
- **Dell Migration Services for SAP** "safely" migrate SAP from UNIX or existing x86 to Dell Cloud platforms
- **Dell Application Upgrade Services for SAP** upgrade your SAP landscape with latest patches and code sets

By 2020, majority of organizations will rely on the cloud for more than **half of their IT services**.

(2011 CIO Agenda Survey, Gartner)



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

Scan or click this code to learn how Dell Services can help your organization.



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