

Establishing Enterprise Cloud Governance

Maintaining control of your cloud environment is significantly easier when you have a governance framework in place. See how you can meet the challenge of ensuring access, security, accounting controls and more – even within a multi-cloud, multi-tool environment.

Typical enterprise cloud environment

Large organizations today have – or are in the process of building – one of three cloud environments:

- Public cloud (e.g. AWS, Joyent, Rackspace)
- Private cloud (e.g. OpenStack, CloudStack, Eucalyptus, vSphere)
- Multi-cloud or hybrid cloud (any combination of multiple clouds)

Challenges

With comprehensive cloud infrastructure management, enterprises will be ready to tackle a number of common challenges when it comes to cloud governance. The most critical include:

- Maintaining security across the cloud environment
- Demonstrating compliance with required laws and regulations
- Controlling and tracking spending

These challenges are the same whether an organization is using a single public cloud with multiple accounts, a private cloud, or multiple clouds.

How Dell can help

Dell Multi-Cloud Manager is a cloud infrastructure management solution for deploying and managing applications in private, public, and hybrid clouds, with robust controls in place to enable the highest level of governance throughout the cloud environment. Multi-Cloud Manager offers fine-grained access controls, financial tracking, integration with identity management systems, and logging and monitoring of all actions taken within the cloud. Developers can leverage self-service provisioning, deploy applications to the cloud, and automate scaling and cloud-bursting based on system or application triggers.

Maintain control over cloud operations with Dell Multi-Cloud Manager.

Benefits:

- Enforces consistent governance policies for actions taken against your applications in any combination of supported clouds
- Watches over your cloud infrastructure, monitoring any combination of supported cloud services – public, private or hybrid
- Enables self-service provisioning of cloud resources on any of the clouds we support through a single user ID
- Automates applications running in one or more supported clouds, including provisioning, scaling, backup and disaster recovery
- Currently supports the following leading public and private clouds: <http://www.enstratus.com/clouds>.

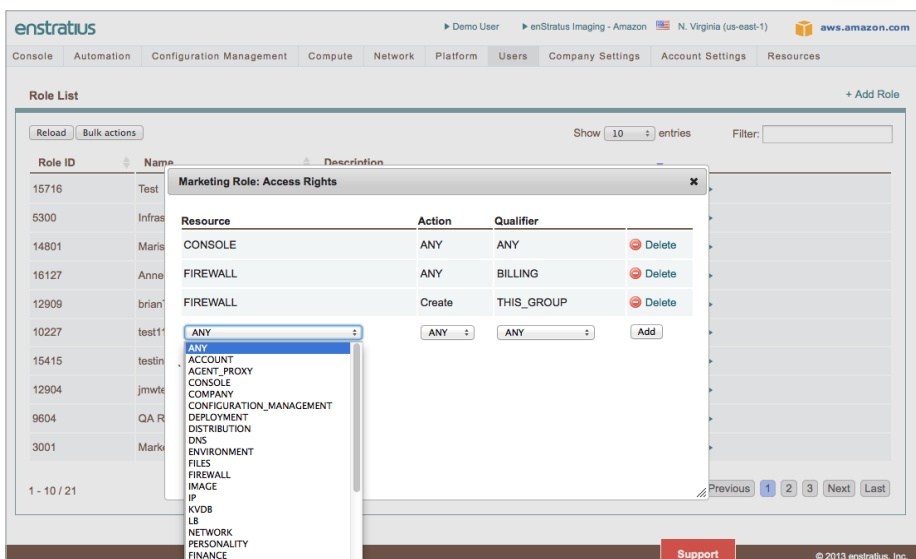


Figure 1. Set access rights to deliver the security controls you require.

Role-based access controls

Multi-Cloud Manager's robust access controls enable organizations to extend their security policies to the cloud. Set an unlimited number of users, groups, and roles to track exactly which person is taking what action and when. Integrate with LDAP/Active Directory to ensure that when employees leave the organization, their cloud access is also instantly terminated. Cleanly separate clients for multi-tenant operations so the actions of one client will have no effect on the actions of another.

Budget tracking

Easily track spending across your cloud environment, by department, group, project, client, or individual user. Multi-Cloud Manager allows you to set alerts once a spending threshold is reached, and to cut off the ability to launch additional virtual machines if a hard cap is reached. Showbacks and chargebacks are easy to implement with the detailed level of tracking provided.

Monitoring of actions and usage

Want to know who is provisioning the largest servers – and which servers are idle/underperforming or overprovisioned? Or, see which user took which action on any given day? Multi-Cloud Manager

features reporting tools that allow administrators to track resource usage within a single cloud or across multiple clouds, with the click of a button. Reports can be downloaded, and can be used, along with Multi-Cloud Manager's monitoring and logging capabilities, in the event of an audit.

Automation

Multi-Cloud Manager allows you to "set it and forget it". Set scaling parameters for applications, enable cloud-bursting when usage reaches a certain peak, and leverage leading configuration management tools like Opscode Chef and PuppetLabs' Puppet, without having to make changes to the recipes and scripts you already have in place. Create a service catalog of approved templates for easy deployment. Users with the right permissions can take advantage of self-service provisioning, saving both the cloud system administrator and the end user time and effort.

API Integration

The Enstratus RESTful API enables easy integration with monitoring, service ticketing and other existing operations, allowing greater governance across your organization.

ID	Name	Budget Code	Soft Quota	Hard Quota	Run Rate	Current Usage	Projected Usage	Budget	Active
777	NOC Operations	NOC	\$12,727.00	\$15,452.60	\$1.40	\$247.46	\$931.69		actions ▶
971	Operations	OPS	\$4,000.00	\$6,000.00	\$0.09	\$38.41	\$79.81		actions ▶
6596	QA Testing	QA	\$1,200.00	\$2,400.00	\$0.00	\$0.00	\$0.00		actions ▶
8088	Software Consulting	28790	\$1,000.00	\$1,500.00	\$0.04	\$3.23	\$22.71		actions ▶
4690	Test	EUCA	\$6,363.51	\$12,727.00	\$0.00	\$0.36	\$0.36		actions ▶
10698	Training	TRAINING	\$1,000.00	\$2,000.00	\$0.00	\$0.00	\$0.00		actions ▶

Figure 2. Budget codes allow you to limit spending across your clouds and warn users when limits are reached.



Dell Multi-Cloud Manager allows you to track resource usage across all of your clouds.

The screenshot shows the Enstratus Usage Report interface. At the top, there are navigation tabs: System Status, Usage, Idle Servers, and Overprovisioned Servers. The Usage Report is displayed with a 'Show usage by: User' dropdown and a 'for date: 8 / 2013' dropdown. Below the report, there is a 'Bulk actions' button and a 'Show 10 entries' dropdown. The main table has columns for ID, Owner, Amazon Web Services Total, Enstratus Total, and Total. The data is as follows:

ID	Owner	Amazon Web Services Total	Enstratus Total	Total
-1	--Independent--	\$96.77	\$0.00	\$96.77
13499	Admin, Demo	\$1.02	\$0.00	\$1.02
1574	Hoffman, Jeff	\$1.02	\$0.00	\$1.02
1285	Johnson, Erik	\$0.20	\$0.00	\$0.20
17028	Mao, Dave	\$0.10	\$0.00	\$0.10
15982	Mortman, David	\$390.97	\$0.00	\$390.97
785	Moselle, Greg	\$17.48	\$0.00	\$17.48
6072	Pando, David	\$12.29	\$0.00	\$12.29
6073	Stevens, George	\$22.56	\$0.00	\$22.56
12570	Urquhart, James	\$5.38	\$0.00	\$5.38
Total for all entries:		\$652.20	\$0.00	\$652.20

At the bottom of the table, there are pagination controls: '1 - 10 / 12', 'First', 'Previous', '1', '2', 'Next', and 'Last'. A 'Support' button and '© 2013 enstratus, inc.' are visible at the bottom right of the interface.

Figure 3. View detailed reports to track resource usage, user actions, and server status within a single cloud or across multiple clouds.

Support for multiple clouds, cloud platforms, and tools

Multi-Cloud Manager helps you avoid vendor lock-in, with support for more than 20 private and public clouds and cloud platforms. Multi-Cloud Manager also integrates into your existing operations, including leading configuration management tools, billing, and monitoring, to enable greater business agility. Multi-Cloud Manager can be delivered as Software as a Service (SaaS) or deployed on-premises.

Conclusion

Don't let your cloud environment control you. Take control of your clouds with Dell Multi-Cloud Manager. This will allow you to put governance at the forefront of your cloud strategy, enabling business agility and reliability while increasing overall security.

Dell Software: Delivering complete and connected solutions

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