About Blackboard
Blackboard designs learning and education software for enterprise/ school groups. Blackboard is a global leader in enterprise technology and innovative solutions that improve the experience of millions of students and learners around the world every day.

Their Challenge
Before CloudBolt, Blackboard relied on a complicated integration of vCloud Orchestrator, Chef, and a ticketing system to run their server provisioning processes. They struggled with slow turn-around time, a lack of governance, and difficulty understanding their costs.

How CloudBolt Helped
Summary
Deployment of CloudBolt enabled:
- Dramatically faster VM provisioning and customer onboarding times
- Chargeback/shameback with cost tracking and transparency across lines of business
- Policies and quotas for controlling usage and access to resources
- Deployments that conformed to company security and operations policies
- Real-time software license management and tracking
- Self-testing of the operations environment

Building a Hybrid Cloud with CloudBolt didn’t mean starting over
In addition to discovering Blackboard’s pre-existing servers, CloudBolt also connected to their Chef installation and automatically imported the available Chef recipes, cookbooks, and roles. Chef content was then ready to re-use from within CloudBolt as applications that could be added to and removed from servers.

CloudBolt did the same for their vCloud Orchestrator environment, exposing the flows so that they could be executed automatically or manually at any point during the server lifecycle.

Faster turn-around with smart automation and integrations
CloudBolt’s orchestration hooks feature enabled Blackboard to tightly integrate with existing workflow components. For example, InfoBlox was configured within CloudBolt for IP address management during provisioning and modification of networks. Orchestration hooks also enabled CloudBolt to create ServiceNow tickets when provisioning requests were approved and to update those tickets as servers were modified or deleted.

Blackboard Vitals
- Employees: 2,000
- Annual Revenue: $450m
- Location: United States

Technology
- Virtualization: VMware vCenter, Amazon Web Services
- Configuration Management: Chef (Multiple instances)
- Orchestration: vCloud Orchestrator
- Ticketing: ServiceNow
- IP Address Management: InfoBlox
- Operating Systems: RHEL, CentOS, Windows
- VMs: 10,000+

Competition
- vCloud Automation Center
- Red Hat CloudForms
- Homegrown Application
CloudBolt allowed existing infrastructure to be partitioned into “environments” using characteristics such as hypervisors, networks, applications, OS templates, and more. These environments were exposed to end-users via simple order forms and a unified API that let them request systems and application stacks without regard to where those resources would be deployed.

The time required to provision a single VM was reduced from 1 business day to just 15 minutes. The time to onboard new hosted clients was reduced from 7 days to under 30 minutes.

**Customer satisfaction through better availability**

Because Blackboard utilized CloudBolt’s multi-tenant capabilities to expose provisioning capabilities to their hosted customers, it was critical that every step of the process worked perfectly. They used CloudBolt’s Continuous Infrastructure Testing (CIT) to perform end-to-end testing of the entire provisioning process. If a hypervisor or orchestration tool fails, CIT warns system administrators, giving them time to proactively address the issue before end-users notice.

**Improved margin reporting and pricing**

Interactive reports of infrastructure usage allowed Blackboard IT to provide accurate actionable information to line-of-business owners about resource costs. This information was used to set pricing and report on margins. IT was also able to differentiate high-value clients from ones that required more resources than they were paying for.

Blackboard Findings

**Summary**

- Time-to-value — 2.5 days to implement core functionality and integrate with existing systems and tools
- Simple and powerful solution — implementation performed without lengthy professional services engagement
- Lower OpEx — CloudBolt was less expensive to operate and maintain than prior solutions
- Capability — successfully met all Blackboard use cases out of the box
- Flexibility — provided Blackboard an extensive choice of clouds and tools
- Governance — Cost & license tracking provided management with unified environment visibility
- Value — Unique features such as license management and self testing added significant value

During Blackboard’s evaluation of CloudBolt, they were impressed by the speed of implementation. After day one, CloudBolt was integrated with Chef, vCloud Orchestrator, and vCenter. After day 2, all required use cases had been met. Subsequent time was spent configuring additional integrations with Blackboard’s workflows by using CloudBolt’s upgrade-safe orchestration hooks feature.

Compared to the competition, Blackboard IT preferred CloudBolt’s flexible and powerful user interface/API combination. The intuitive self-service interface meant users would not require ongoing training to make changes and alterations as their needs evolved. And the API meant DevOps teams could access IT resources programmatically. Blackboard also liked the seamless upgrade process: CloudBolt is updated just as easily as it installed, and customizations are upgrade safe.

Overall, Blackboard cited CloudBolt’s capabilities as being both compelling and accessible. When coupled with dramatically reduced OpEx and a time-to-value measured in hours rather than weeks, CloudBolt’s advantages were clear.

For More Information

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