



Aston University's Private Cloud Automation

INDUSTRY:	Education
OBJECTIVE:	To optimize their virtual resources and automate the management, chargeback, and provisioning of their "ISA Cloud Computing Service" private cloud.
APPROACH:	Out-of-the-box management and automation in support of their growing private cloud service.
BUSINESS BENEFITS:	<ul style="list-style-type: none">• Justified the purchase of V-Commander through capacity savings on day one.• Provided branded self-service capabilities and automated billing to their customers• Increased quality of service, improved administration effectiveness and reduced errors.

Aston started working with virtualization in 2004, when it kicked off its server consolidation initiative with an initial set of ten finance applications. Growing organically, this initial small environment became the start of a full-fledged private cloud initiative that was ultimately branded as the ISA Cloud Computing Service. (For more info, go to: <http://www1.aston.ac.uk/ict/staffguide/cloud/>).

They moved their first customers onto their private cloud in 2009, billing them through a Sharepoint list manual chargeback system. This service chargeback allowed them to fund the gradual expansion of the infrastructure. A "cloud service first" corporate directive was established in 2010, with all new services going automatically to their cloud environment unless there is a strong reason why it shouldn't.

All the University's schools of study and support departments utilize the service. As their private cloud environment grew, the IT server team led by Steve Goodman, Senior Server Engineer under the oversight of Associate IT Director, Trevor Bayliss, started to experience problems with capacity, and with their manual chargeback system, that they decided they need to resolve in order to continue their expansion.

They found their solution in Embotics V-Commander™

After examining a variety of different products from VMware and Veeam, they selected V-Commander as it solved both their immediate problems, and at the same time provided their customers a fully automated, and fully integrated self-service portal. Most importantly they were able to implement everything quickly and easily, without the need for an implementation project.

As an added bonus, they were able to demonstrate an immediate ROI, paying for V-Commander with the savings from the deferred cost of a planned additional host, which they now no longer needed once V-Commander had optimized the capacity that they already had. The chargeback portal and additional automation became an added bonus.

"No other product on the market does it "all-in-one" like Embotics V-Commander... we haven't found another product that can compete on the amount of features for the price."

- Steve Goodman
Senior Server Engineer
Aston University

Fully Integrated and Automated Self-Service Portal including Request, Renewal, Billing & Approval Workflows

"The combination of resource management and easy to deploy best practice automation - in one integrated product, made V-Commander the perfect choice for us."

- Steve Goodman
Senior Server Engineer
Aston University

<p>THE CHALLENGE: Selecting and implementing a Private Cloud Automation system to optimize the resources and provide integrated self-service and billing.</p>	<p>Aston University's private cloud is managed by a small dynamic server team led by Steve Goodman. The team is responsible for the on-going development and operation of virtualization, messaging, SAN, directory services along with the underlying server infrastructure that supports the University's critical business, learning and department applications. Their VMware environment consists of approximately 250 VMs, 85% of which are in production, and the team is in the process of building out its DR site.</p> <p>Supporting 4 large schools of study and approximately 20 support departments, the team needed to add capacity management and automated chargeback to replace its existing manually intensive processes.</p>
<p>THE EXPERIENCE: Implement automation in stages, starting with chargeback and ending up with a fully integrated and branded customer portal.</p>	<p>Embotics guided Steve and his team through the implementation of V-Commander via a single webinar session. V-Commander started working right of the box, completely replacing their existing manual chargeback system, reducing errors and eliminating the manual effort. The capacity management and resource optimization features quickly identified existing VMs that were either sprawled or over/under resourced, and the assisted placement feature automatically guides new services to hosts that have available capacity.</p> <p>The self-service workflow was setup from scratch in under three hours, including the time to learn, troubleshoot, build a basic service catalog and test. Another day was spent tuning and expanding the catalog to accommodate the 40 or so existing customers' specific needs. The team was also able to quickly adapt the built-in decommissioning workflows to automate their service renewals. As each VMs reaches its renewal date, an e-mail which includes the cost of the service (automatically calculated by V-Commander), is sent to the customer, who has until the actual date to approve the billing. If the billing is approved, the expiry date is reset; if not, then the service is automatically shut down on the expiry date.</p>
<p>BENEFITS: Improved utilization, full self-service capability for the customers and error free automated chargeback.</p>	<ul style="list-style-type: none"> • Improved utilization: Capacity management and resource optimization features improved utilization and overall level of service, delaying the need for additional purchases. • Automated chargeback: Automatic cost tracking and reporting ensures error free and effortless, real-time chargeback for each and every service. • Self-service: Allows customers to view the status of existing service, request new services and approve service renewals without any involvement from the IT administration team.
<p>CUSTOMER VALUE (ROI): Aston University was able to justify the purchase of V-Commander through the day one savings provided by the resource optimization features.</p>	<p>The automated chargeback, self-service user portals and other management and automation features were an added bonus.</p> <p>Best of all they could brand the portal to the ISA Cloud Computing Service brand, providing continuity for their customers.</p> <p>The next step for the self-service portal is to integrate it with the university's internal billing, approval, and other systems to ensure that the whole provisioning process is automated end to end. Steve and his team will be doing this themselves using the V-Commander API set.</p> <p>As most of their customers will be renewing their services in July, that is the target date by which they plan to switch over to the new, branded and fully integrated portal. Understanding their costs as completely as they do, allows the university to make rational decisions when looking at the use of outside services or clouds compared to their internal private cloud... And at customer cost of roughly \$400/VM/year, it's clear that their Private Cloud has created the best possible cost model for them.</p>