

Colt Builds Cloud-Hosted Desktop as a Service Offering for 10,000 Users with Atlantis


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Colt Builds Cloud-Hosted Desktop

Colt, a premier VMware partner, is a leading service provider running Europe's largest VMware vCloud deployment with 30,000 customers. Colt's state of the art fiber-optic network spans 22 countries in 39 European cities with direct fiber last-mile connections into 18,000 buildings and 20 Colt data centers. Colt won the Best of VMWorld Europe 2012 (case study) for their "innovative deployment of desktop virtualization" which is based on VMware and Atlantis Computing technologies.

Colt Overcomes Storage Challenges with Atlantis ILIO Diskless VDI™

Colt was looking for a desktop virtualization solution that was simple to deploy and scale, easy to control and manage, and capable of delivering a better-than-PC experience. Colt started a VDI pilot but soon discovered that the storage CAPEX and OPEX costs would make the solution too expensive to deliver a high performance desktop at scale to their customers.

Using **Atlantis ILIO Diskless VDI**, Colt was able to eliminate traditional storage for virtual desktop images, reducing the total cost per desktop by 61%. Atlantis ILIO uses Cisco UCS RAM as primary storage for stateless desktops on VCE Vblock systems. Colt, working with VMware's professional services team, was able to demonstrate that the solution could support 171 desktops per Cisco UCS blade, resulting in a 40% increase in user density. Even at maximum desktop density, the user experience was significantly faster than a physical PC with 0.53 second average response time (measured by VMware View Planner). The desktop service was designed to scale out as needed by adding Cisco UCS servers with Atlantis ILIO software. Currently, the deployment stands at 10,000 virtual desktops.

Atlantis ILIO Deployment Automation with VMware View

Colt automated the installation, storage sizing, configuration and datastore creation using Atlantis ILIO Center with a seamless handover to VMware View Composer. Using **Atlantis ILIO Center** automation, Colt was able to provision and operationalize multiple racks of servers for thousands of users, on-demand. VMware View User Persona was redirected to VCE Vblock storage.

The Colt deployment was architected with disaster recovery (DR) and high availability (HA) across Data Centers for total resilience. Users were then load balanced across sites in order to minimize the impact of any DR event. Due to the density increase, Colt could deliver a fully resilient system without excessive cost.

Colt Hosts DaaS solution for 2,700 Users at Hammersmith and Fulham Council

The London Borough of Hammersmith and Fulham council in the United Kingdom has deployed a virtual desktop solution running on Colt's DaaS infrastructure to approximately 85% of their employees. This solution has replaced an earlier VDI-type technology and allowed the council to better manage its real estate portfolio by enabling greater opportunity for desk sharing and home working. It also addressed concerns about business continuity by moving from their on-premise VDI solution to one where data was securely stored in the cloud. From a financial perspective, as a result of the DaaS deployment, cost per VDI seat was reduced by 20-25%, power consumption declined by 80% and total cost of ownership was cut by 33%. To read more, visit <http://bit.ly/hfcolt>.

INDUSTRY:
Telecommunications

Business Drivers

- Reduce IT costs related to PC delivery
- Increase employee productivity and mobility

Challenges

- Storage CAPEX
- End user experience
- Operational costs
- Scalability

Atlantis ILIO Benefits

- 61% CAPEX reduction
- 23% OPEX reduction
- 40% Increase in user density
- Better-than-PC user experience
- Proven Scalability



Using Atlantis ILIO Diskless VDI simplifies our VMware View deployment, reduces operational complexity & delivers both a vastly improved user experience and a much lower cost per desktop.

— Chris Hewetson CIO,
COLT



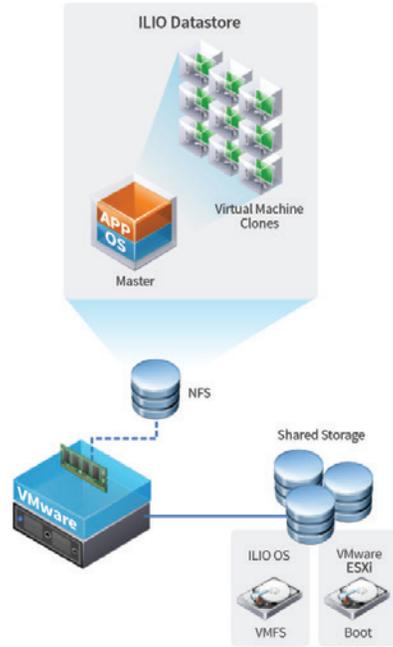
Early adopters like the new services because booting up, logging in and launching applications is much faster. People want it as quickly as we can get it out to them

— Howell Huws,
Head of Business Technology,
Hammersmith & Fulham
Counciltson



10,000 User Reference Implementation with Atlantis ILIO and VMware Horizon View

Atlantis Computing and VMware have developed a reference implementation for 10,000 users, illustrating the architecture that Colt used with VMware Horizon View and Atlantis ILIO Diskless VDI, including specific implementation decisions that were made to meet Colt's and their customers' requirements. To download the full reference implementation, visit <http://bit.ly/10kvmwarecisco>



Reference Implementation Benefits

- Delivers a fully stateless virtual desktop platform using VMware Horizon View and Atlantis ILIO Diskless VDI
- Has a modular design that can horizontally scale to 10,000 users and beyond
- Gives the end users "better-than-PC performance" by using Atlantis ILIO Diskless VDI to create a datastore from local server memory
- Delivers the most cost-effective desktop from both a CAPEX and OPEX standpoint by reducing costs for rack space, cooling, and ongoing maintenance and eliminating storage requirements for virtual desktop images.
- Provides redundancy to cope with disaster recovery.

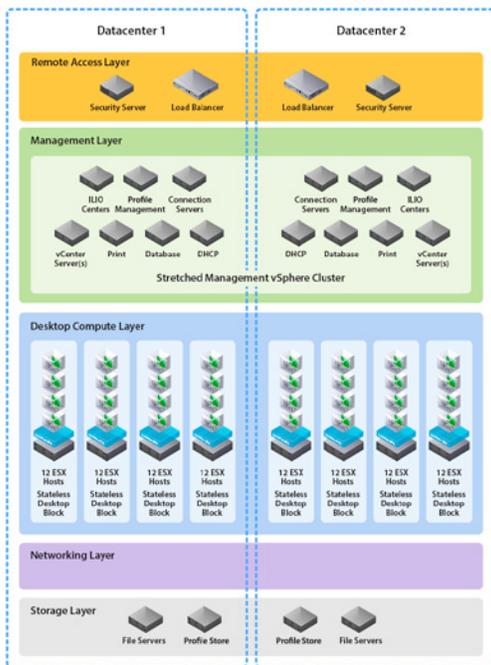
Architecture Overview

- The logical architecture follows the principles of the Horizon View pod and block approach—modular, scalable and repeatable blocks of management and desktop infrastructure. This architecture includes:
- Two data centers in a native-active configuration. In a Disaster Recovery (DR) scenario, 55 percent of users would continue to be serviced in the event of datacenter loss.
- Clusters of VMware vSphere hosts supporting desktops for load balancing through View Connection Servers.
- Considerations for storage and network requirements, including redundancy.

Reference Design Components

- Atlantis ILIO Diskless VDI: a virtual appliance that accelerates storage IO, provides IO processing, compression and performs inline data de-duplication In-Memory using server RAM.
- Atlantis ILIO Center: required to manage and update the individual Atlantis ILIO virtual appliances.
- VMware ESXi5U1 (hypervisor infrastructure), VMware vCenter (Virtual Machine Management), VMware Horizon View (Virtual Desktop Infrastructure)
- Cisco UCSB230-M2half-width blades: each containing 2CPU sockets with 8 cores each and 384GB of RAM. Total of 96 blades required for 10,000 users (48 per datacenter).

[Read the 10,000-User Implementation with Atlantis ILIO and VMware Horizon View Reference Architecture](http://bit.ly/10KVDIRefArch)
<http://bit.ly/10KVDIRefArch>



Atlantis Computing U.S. Headquarters
2525 E. Charleston Road, Suite 100
Mountain View, CA 94043
PHONE: 650.917.9471
EMAIL: sales@atlantiscomputing.com
TWITTER: @AtlantisSDS

Atlantis Computing European Headquarters
Birchin Court, 20 Birchin Lane
London, EC3V 9DU
PHONE: +44 2034052851
EMAIL: sales@atlantiscomputing.com
TWITTER: @AtlantisSDS

