

Dixons Carphone Selects IBM Cloud Secure Virtualization with HyTrust for PCI DSS Compliance

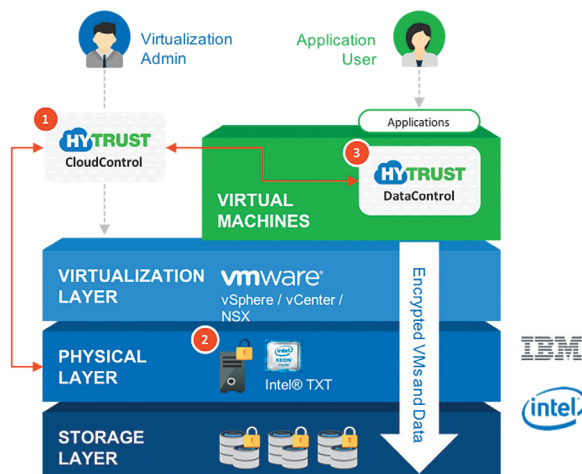
Dixons Carphone

Dixons Carphone is a multinational electrical and telecommunications retailer and services company headquartered in London, England. The company was formed in August 2014 by the merger of Dixons Retail and Carphone Warehouse Group. It is listed on the London Stock Exchange and reported over £10 billion in annual revenue in Fiscal Year 2017/2018 while employing over 42,000 employees in nine countries. In the United Kingdom, Dixons Carphone operates such brands as Currys, PC World and Dixons Travel.

IBM Cloud Secure Virtualization

IBM Cloud Secure Virtualization is a turnkey joint solution powered by HyTrust, IBM, Intel and VMware to simplify security and compliance for organizations in even the most highly-regulated industries. HyTrust provides security and compliance automation via HyTrust CloudControl, HyTrust DataControl and HyTrust KeyControl. HyTrust CloudControl includes policy-based access controls, forensic-grade logging and configuration hardening for compliance mandates including PCI DSS, HIPAA and GDPR. HyTrust DataControl offers multi-cloud ready, zero-downtime encryption while HyTrust KeyControl, a FIPS 140-2 validated, feature-rich key management server, manages encryption and decryption keys at scale.

Intel hardware, including Intel Xeon processors, powers the IBM Cloud for IBM Cloud Secure Virtualization deployments across sixty global datacenters. Intel TXT, CIT and TPM technologies improve security and compliance monitoring for cloud operators and provide visibility into the cloud data center, establishing trust at all levels, including the hardware and hypervisor layers, as well as asset tag compliance management. VMware provides the overall virtualization infrastructure with VMware Cloud Foundation, which includes vSphere, NSX and vSAN.



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HyTrust for PCI DSS 3.2.1 Compliance

Any and all organizations that handle payment card data are subject to the Payment Card Industry Data Security Standards (PCI DSS), with the most recent revision being PCI DSS 3.2.1 in May 2018. HyTrust CloudControl was designed to be the most complete solution available for administrator and configuration controls of cloud infrastructure. PCI DSS mandates controls in many areas, but two of the most important are administrator activity and infrastructure configuration, and these are the two areas where HyTrust CloudControl delivers unmatched capabilities. Specifically, HyTrust CloudControl supports 28 controls in the following PCI DSS sections:

- Section 2: Vendor Defaults
- Section 6: Secure Systems
- Section 7: Restrict Access to Cardholder Data
- Section 8: Identify and Authenticate Access
- Section 10: Track and Monitor All Access

To meet the requirements of the above sections of PCI DSS, HyTrust offers the following broad hypervisor controls:

- Configuration hardening
- Authentication controls including password management and two-factor
- Least privilege role-based access controls
- Reporting and auditing of administration activity
- Separation of duties (vnetwork/host; dev/test/prod)
- Mixed mode administrative segmentation
- Sampling reduction - Centralized operational processes and controls



Dixons Carphone's Mixed Mode Environment

Dixons Carphone came to HyTrust and IBM with the goal of simplifying PCI DSS compliance and combining PCI and non-PCI virtual servers on a single hypervisor, in order to use the cloud as efficiently as possible. This deployment model, known as "Mixed Mode" is not prohibited by the PCI DSS. However, the Virtualization Guidelines make it clear that this model will be held to an even higher standard during an assessment, because of the risk of attacks being launched from the non-PCI workloads. It also puts more pressure on the proper administration of the hypervisor to ensure that strong segmentation is maintained. And finally, this mode has the potential to drive up the costs of compliance, because logging of the PCI and non-PCI workloads and administration may become co-mingled.

HyTrust CloudControl fully supports mixed-mode PCI deployments, and, in fact, it would be difficult to pass a PCI DSS audit without implementing the controls CloudControl provides. Broadly speaking, CloudControl supports these four mixed-mode controls and functions for both administrative and logical segmentation:

- **Enforced workload (VM) placement** - Ensures both PCI and non-PCI VMs are placed only on authorized servers
- **Configuration hardening** - Eliminates possible segmentation violations via hypervisor misconfiguration
- **Administrator role separation** - Allows different people to operate the non-PCI workloads, moving their activities out of scope
- **Independent logging of PCI workloads** - Minimizes cost and effort of compliance controls and reporting

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The Deal: HyTrust, IBM and Dixons Carphone

Dixons Carphone engaged IBM Global Technology Services (GTS) in Q2 2018, looking to move to IBM Cloud, but highlighting the need for a mixed-mode, compliant environment including both PCI and non-PCI workloads for maximum efficiency, agility and scalability. IBM GTS then engaged HyTrust to participate in the joint selling motion of IBM Cloud Secure Virtualization. HyTrust trained IBM GTS and IBM Integrated Managed Infrastructure (IMI) teams and through HyTrust solutions were even able to minimize IMI's access to the environment, meeting Dixons Carphone's requirements for the principle of least privilege for outsourced support. The full stack of VMware Cloud Foundation (vSphere, vSAN and NSX) and HyTrust CloudControl, DataControl and KeyControl were deployed in IBM Cloud, allowing for the desired mixed-mode PCI segmentation and a PCI DSS compliant environment. **The entire engagement lasted only four months, with billing to Dixons Carphone beginning in Q3 2018.**

Next Steps

To learn more, visit www.hytrust.com/ibm2019 or www.ibm.com/cloud/secure-virtualization, or contact the following key stakeholders:

- **IBM: Andrew Guerra** (andrew.david.guerra@ibm.com) – Offering Manager, IBM Cloud for VMware Solutions
- **HyTrust: Pat Conte** (pconte@hytrust.com) – Senior Vice President, Global Business Development
- **HyTrust: Mike Turner** (mturner@hytrust.com) – Vice President, Solution Architecture and Evangelism

“The full stack of VMware Cloud Foundation (vSphere, vSAN and NSX) and HyTrust CloudControl, DataControl and KeyControl were deployed in IBM Cloud, allowing for the **desired mixed-mode PCI segmentation and a PCI DSS compliant environment.**”

To learn more, visit www.hytrust.com or www.dixonscarphone.com

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