



bullion cloud platform

Putting simplicity and security
at the heart of private Clouds



STILL HAVE SOME QUESTIONS ABOUT PRIVATE CLOUDS IN VMWARE ENVIRONMENTS?...

... BULL, WITH THE BEST EXPERTS IN THE FIELD, GIVES YOU THE ANSWERS.

1. *My infrastructure has to meet tough criteria when it comes to agility and performance. So what is the best Cloud architecture in this situation?*

Bull designed bullion cloud platform and its transformation methodology as a result of the comprehensive implementation of a massive secure private Cloud infrastructure, which currently plays host to over 600 Virtual Machines (VMs). As an integral component of Le cloud by Bull, bullion cloud platform draws on the very latest VMware technologies. As a **pre-integrated, open and secure** solution, bullion cloud platform enables **truly made-to-measure** Cloud architectures to be built, that meet the needs of even the most demanding applications environment.

2. *How can I successfully migrate my infrastructure towards the Cloud?*

Le cloud by Bull provides comprehensive support for the transition to Cloud computing: from consultancy right through to hosting. In particular, Bull has high-level expertise in virtualization and the various Cloud technologies needed to build a comprehensive, secure and fully operational solution around bullion cloud platform. For complete simplicity and peace of mind, all the teams involved provide **continuous support throughout the transformation project**.

3. *How can I optimize the integration of VMware into my Cloud infrastructure?*

You can rely on Bull – voted VMware’s EMEA Partner of the Year in March 2012 – with over a hundred VCP certified experts, to provide a solid ecosystem. As a result of this technological alliance, the unique functionality of VMware products has been effectively combined with the performance and reliability of Bull technologies. At last, with bullion cloud platform, you have a computing platform that is **specifically designed and optimized for critical application virtualization**.

BULLION CLOUD PLATFORM

- ✓ Consultancy, to help you define the Cloud architecture and services that **most closely match your needs**
- ✓ **Pre-integrated** virtualization functions, based on market-leading VMware technologies
- ✓ **Ultra high-performance, reliable technologies** based on bullion, Bull’s x86 server specifically designed for critical application virtualization
- ✓ A comprehensive range of expertise, for a successful, **well-managed implementation**
- ✓ The highest guarantees of **security**, thanks to the integral use of Evidian’s security software suite and VMware’s vCloud Network & Security solutions
- ✓ A step-by-step framework for managed **transformation**: Le cloud by Bull

ALL THE POWER YOU NEED IN A SINGLE RACK

bullion cloud platform is a complete solution combining the power of high-end servers designed and manufactured in Europe, with the best technologies from highly respected partners such as VMware's vCloud, EMC storage and Brocade networking solutions, and Bull's own well-regarded security technologies.

The result? An infrastructure that meets even the highest demands in terms of security, scalability and performance.



Simplifying private Cloud infrastructures

Rather than using more and more small-scale blade servers to meet the growing need for power, bullion cloud platform offers a modular architecture that can host thousands of applications and even the most resource-hungry databases. The secret? bullion: the fastest server on the market today, with record-breaking performance, unbeatable robustness and scalability thanks to the use of VMware vSphere5. bullion cloud platform **delivers twice the 'scale-in' and 'scale-out' capacity of any of its rivals**. Delivered in a single rack, bullion cloud platform offers a 'plug and play' solution for any organization that wants to avoid the nightmare of managing hundreds of networked servers and peripherals.

With bullion cloud platform you can:

- Keep the administration of your Data Center as simple as possible
- Let your infrastructure evolve at a pace to suit your needs
- Run the most sought-after applications and databases
- Host over 500 applications on the same server!

Managing the Data Center efficiently

VMware vCloud **provides secure, on-demand access to shared resources**. The solution uses Vcloud director, vCenter Chargeback and vCloud Network and Security, and extends VMware technologies to other Data Center resources such as processing power, storage, networks and security, all brought together into virtual Data Centers. These resource containers are highly secure and scalable, and are shared between users, who have self-service access to them. What's more, because they are completely hardware-independent, applications can easily be moved between compatible Clouds.

With bullion cloud platform:

- Systems administration and security are based on service level agreements (SLAs), for totally secure management of shared infrastructures
- Agility and rapid access to Cloud infrastructures are guaranteed
- Units of work can be implemented in private, public or hybrid mode, for maximum flexibility

Protecting information with the highest levels of security

Thanks to the proven and certified technology developed by Bull, bullion cloud platform offers the highest levels of security in terms of **access control, security of connectivity and control over data protection**. Access to systems is protected by Evidian I&AM9, which authenticates every person who connects to the system, manages their access rights depending on their role and responsibilities, and verifies their connections to ensure regulatory compliance. bullion cloud platform also capitalizes on Bull's expertise in data encryption with its TrustWay solution, which is especially well suited to securing information in hybrid Clouds.

With bullion cloud platform, you can:

- Take advantage of highly secure access controls
- Protect yourself against data leakage/loss
- Encrypt your data and provide defense-level protection for your transactions

Manage huge amounts of data in a secure environment

bullion cloud platform incorporates EMC VNX and VMAX storage systems, for unified, **automated storage that is fully optimized for virtualized applications**. The solution provides overall visibility of the environment thanks to the excellent interoperability between the EMC and VMware technologies. And because implementing a private Cloud involves modifying your data back-up strategies, bullion cloud platform also features a solution that optimizes storage and protects applications so you can manage and secure very large amounts of data within a private Cloud.

With bullion cloud platform:

- Your storage solution is a unified and automated for optimum cost control
- You can take advantage of the most powerful network storage solution currently available
- The same solution not only optimizes your storage but also protects your applications



THREE CONFIGURATIONS TO MEET DIFFERENT NEEDS

To meet the needs of development teams as well as those related to the implementation of mission-critical applications, Bull offers three bullion cloud platform configurations. Each configuration is pre-defined, optimized, validated and pre-packaged, for a rapid and risk-free deployment that precisely reflects your individual situation. These configurations can easily evolve in the future, depending on your changing business needs.

- ➔ **Discovery:** this configuration is particularly well suited to organizations that want rapidly available resources, available on a pay-as-you-go basis, for their software testing and development. It is designed to cut support costs and maximize server utilization rates.
- ➔ **Department:** this configuration is especially designed for small and medium-sized organizations that have to host numerous applications on a simple infrastructure. It meets all the service levels demanded by businesses, for their applications and their security.
- ➔ **Enterprise:** even the most demanding service level agreements can be met with this configuration. It is ideal to support mission-critical applications and databases, and protects private Clouds with the kind of security levels usually demanded by the banking industry.

	DISCOVERY AGILITY	DEPARTMENT COST-EFFECTIVENESS	ENTERPRISE SECURITY
USE	Tests and development	Infrastructure applications such as: messaging, Internet services	Enterprise critical data such as SAP, Weblogic, databases...
BENEFITS	Fast access to new temporarily resources	<ul style="list-style-type: none"> • High density consolidation • Simplified infrastructure • Improved TCO 	<ul style="list-style-type: none"> • Secured heavy production • High quality of service • Banking-class security • High performance
RELIABILITY	<ul style="list-style-type: none"> • Memory protection • Simple back-up 	<ul style="list-style-type: none"> • Memory protection • High availability • Simplified management 	<ul style="list-style-type: none"> • Memory protection • Enterprise backup, global disaster recovery planning
SCALABILITY	<ul style="list-style-type: none"> • Cloud Services • Web-provisioning • 300 virtual machines 	<ul style="list-style-type: none"> • Hyper consolidation: 168 applications on a single 4-socket server • 500 virtual machines 	<ul style="list-style-type: none"> • Hyper scalability: 8 to 16 sockets • 700 virtual machines

A MANAGED TRANSITION TO THE CLOUD

Ensuring the widespread adoption of private Clouds and virtualization may seem like a huge task. Security issues, as well as the complexity of hardware and software infrastructures, present real challenges for organizations. They must be able to call on a partner with a perfect understanding of how to integrate mission-critical applications into a private Cloud – in terms of flexibility, agility and security – so as to fulfill service level agreements.

If the Cloud is to truly create value for the business – and not just add extra complexity, tensions or insecurity – IT departments must prepare to embrace it. That is why Bull offers its customers dual expertise in the Cloud: high-level technical assistance with the specifics of bullion cloud platform on the one hand and, on the other, Bull's full range of Cloud services, from consultancy right through to hosting.

To support IT Departments in their transformation towards the Cloud, Bull has established a team of specialist consultants, Bull Advisory Services, who help to assess the complexity of the information system and evaluate its organization and level of maturity. The team helps IT Departments take on their new

role, as providers of shared infrastructure services: choosing the most appropriate services to meet business needs, optimizing demand and capacity management, implementing detailed financial management...

And, using its network of industrial-scale Cloud Centers and its experience of hosting sensitive applications, Bull can provide flexible and secure outsourcing of its customers' private Clouds on bullion cloud platform.

Bull Advisory Services uses a methodology based on industry-standard frameworks including ITIL, COBIT and eSCM, and offers:

- *Audits and analyses (maturity, impact, specifications for optimization and transformation solutions...)*
- *Analysis of key infrastructure elements (Vision services)*
- *Services matrix and services catalogue*
- *Reference architecture*
- *ROI evaluation.*

KEY CHALLENGES OF THE ENTERPRISE CLOUD



THE STRUCTURED CLOUD

To make sure that the Cloud is a positive driver for value creation – rather than adding complexity, tensions or insecurity – IT Departments have to get ready to welcome it.

That involves instigating, structuring, planning and securing an enterprise Cloud transformation project, to gradually raise service levels and cut costs, step by step.



THE AGILE CLOUD

To become part of the age of industrial-scale, instantly adaptable and business-oriented IT, the cloud needs a flexible and scalable technological platform:

one that contributes to simplification and can support different types of architectures on heterogeneous technologies. Only under these conditions can infrastructures offer the highest levels of security and service for critical applications.



THE SECURE CLOUD

Whatever the cloud environment – public, private or hybrid – information is still organizations' most important asset, and protecting it is a vital issue.

So security is a central concern, whether it is approached globally – data protection, access control, vulnerability management, service availability – or in response to specific organizational, business, operational, geographic or regulatory questions.



THE CONTROLLED CLOUD

In a services-oriented organization, new rules are being written to cover the offering, billing, instantiation and supervision of services, resource provisioning and process automation.

Defined by SLAs, measured and audited, service levels are at the heart of a new form of governance, aimed at guaranteeing totally transparent management of the cloud.



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