



Backup & Recovery for VMware infrastructures

Bull StoreWay Solution

www.bull.com


Architect of an Open World™

Backup and Restore of virtual machines, files and applications, adapted to VMware environments

The implementation of a virtual server environment requires changes to data backup strategies. A backup environment designed for a physical server and its applications is not necessarily efficient in an environment with virtual machines. It involves new constraints: VM sprawl, lack of flexibility and performance, difficulties to respect backup windows. But it also provides new opportunities: multiple backup options, granular recovery options, from Single File Restore to easier Disaster Recovery.

Protecting a virtual environment is not limited to the backup of the VMs, there are needs for storage optimisation and efficient application protection.

BULL KEY DIFFERENTIATORS

- Bull is able to deliver an end-to-end backup and recovery solution both for virtual and physical servers: from audit to maintenance
- For VMs, Bull can compare and deliver a full range of backup (including tapes and libraries/VTL) and recovery options addressing different needs
- Bull provides more than services alone: 100+ customers references / projects and 50+ certified experts (multi-environment: EMC, NetApp and Optima -VMware, Hyper-V and Citrix)
- Bull proposes POC and VM backup recovery capabilities demos (labs, state-of-the-art, StoreWay Solution Center)

SLA at stake

- Backup windows for the pool of VMs no longer respected?
- Can't perform backup in the middle of the day, or several times a day, without an impact on other VMs applications?
- Not able to propose granular recovery options for the VMs?

Bull solution leverages multiple backup and recovery options for protection, from file level up to disaster recovery capabilities. It contributes to offloading backup operations.

Risks at stake

- Unbreakable information access for VMs and Data stored on a common storage array?
- Complex administration, monitoring and recovery of the VMs?
- VM sprawl? Reliability of the VMware infrastructure? Complexity?
- Application consistency in the VMs?

Bull solution uses 5x9s proven storage array systems and network design with clear administration and monitoring tools, integrates automated VM discovery, reliable backup with optional application agents and efficient recovery. It benefits from certified experts consulting, relying also on demos from a lab and proven robust backup solutions.

TCO at stake

- Have no centralized management of the backup operations?
- Exponentially increasing costs due to VM proliferation and to the fact that most of backup methods for virtualised environments rely on disk backup?

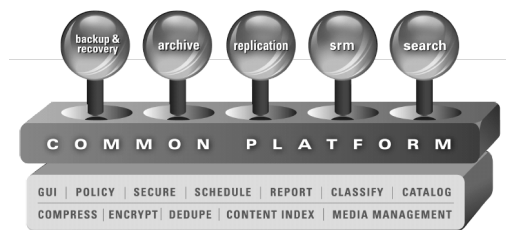
Bull solution uses a single provider, proposing backup and recovery solutions for both physical and virtual servers, from a unique H/W console management. It integrates backup optimization technologies such as deduplication, thin provisioning, HSM (Hierarchical Storage Management). Moreover, it offers the capability to backup on tapes /library or VTL.

Adopt a unified approach to protecting, optimising and managing data in a virtual environment

Bull, integrator of complex and heterogeneous storage environments, has chosen **StoreWay Calypso, powered by CommVault**, to play a key role in complementing the underlying storage platform and providing Bull customers with a modern and unified approach to protecting, optimising and managing their data in a virtual environment.

Backup and recovery are fundamental to sound data management strategies. StoreWay Calypso software backup and recovery features form the foundation from which customers can build a truly unified data

management solution. A truly unified solution allows them to better manage information assets, recover data more quickly and ultimately save money over loosely integrated, legacy solutions. StoreWay Calypso software's Virtual Server Agent (VSA) is the industry leader in meeting the challenges of protecting a virtual environment. StoreWay Calypso software scales seamlessly to support the most demanding enterprise deployments running VMware, Microsoft Hyper-V or Citrix Xen.



Third generation of Virtual Server Data Protection

Unanticipated surges in virtual machines and data growth makes virtual environments very dynamic, difficult to predict, manage and protect. Existing products and procedures often no longer work or may not be applicable to large environments.

Large environments & critical applications

With hundreds to thousands of virtual machines (VMs) driving rapid data growth administrators find that meeting backup windows becomes very difficult and application and file recovery is a multi-step, complex process that takes too long. With Calypso support for thousands of VMs and integration with array-based snapshots, hundreds of VMs running applications (Oracle, SQL Server, SAP, DB2, MS Exchange) can be backed up in a consistent state within minutes.

Flexibility for recovery

Administrators can automate and create multiple recovery points each day, catalogue content residing within snapshots and manage data across tiers of storage and tape.

Automated growth management

As new VMs come online, Calypso software automatically discovers and protects VMs using pre-defined data protection policies which ensures new VMs are not left unprotected. Advanced reporting provides administrators with a 360 degree view of their environment and describes the physical environment and the contents of individual VMs.

Administration ease of use

Administrators can use the user interface to easily "browse, point and click" to restore complete application environments, VMs and data residing on storage devices (or tape) back to the primary storage system.

STOREWAY CALYPSO, POWERED BY COMMVAULT, KEY FUNCTIONS:

1. SnapProtect™ for Virtual Server Agents - protect hundreds of virtual machines in minutes with policy-based HW snapshots. Dramatically improve RPO and RTO capabilities.
2. Massive Scalability - optimized to support thousands of Virtual Machines.
3. Integrated Deduplication - reduce network transfer by up to 90% and backup windows by 50% using source-side deduplication.
4. Enhanced Autodiscovery of Virtual Machines - automatically discover and assign new VMs to data management policies for minimal management.
5. Integrated SRM Capability - optimize storage resource utilization with rich set of analysis, trending and reporting tools.
6. Heterogeneous Storage Support - Supports a wide variety of storage systems for snapshots
7. Expanded Virtual Server Support - Now supports Virtual server environments running VMware, Microsoft or Citrix Xen

Bull StoreWay, integrator of storage solutions

An integrator with a unique skill-base

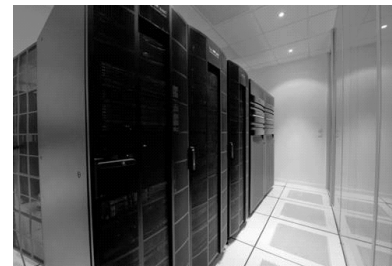
As an expert integrator of storage solutions, Bull StoreWay is constantly extending its unique body of skills, tools and partnerships to help customers design and deploy their storage strategies in line with their specific business needs and budget. The Bull StoreWay value proposal is based on three key benefits: preserving information assets by controlling risk, reducing costs through infrastructure optimization, and improving competitiveness through improved data management.

A comprehensive range of services

As well as its extensive product portfolio, Bull StoreWay offers a complete range of services, from consultancy through to system design, integration and maintenance. From the factory pre-integration of storage solution right through to project management, installation and support services, Bull StoreWay provides tailored assistance to ensure rapid, well-managed implementation.

StoreWay Solution Center

Bull StoreWay has forged strong partnerships with the storage industry's major players, including EMC, NetApp, Brocade, CommVault, Symantec, NEC, Oracle/StorageTek and Overland. This close relationship was the driving force behind the creation of the StoreWay Solution Center, an international center dedicated to data protection and virtualization technologies. Located in Grenoble, France, the center embodies Bull StoreWay's high level of expertise and know-how in storage infrastructures, and offers IT professionals the opportunity to exchange ideas and test new technologies, providing an ideal environment for defining and building optimized storage solutions.



TRY A DEMO AT STOREWAY SOLUTION CENTER (at Grenoble in France or remote)

Several approaches to data backup and restore are covered in order to take full benefit of a VMware environment.

Applications for different service levels, impact on cost and risk management are discussed.

The different covered topics are:

- Presentation of data backup and restore challenges in a VMware infrastructure,
- Data backup and protection solutions in a VMware environment,
- Definition of a reference backup architecture, impact of VMotion and VMware on the backup process,
- Integration of EMC CLARiiON and VNX storage and the VMware infrastructure (robustness and ease of administration),
- Value of data deduplication technologies in VMware backup environments,
- Demonstration of the Bull StoreWay Calypso solution: granular backup and restore

■ For more information and reservations,
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■ To know more on the Bull StoreWay Solution Center,
connect to www.storewaysolutioncenter.com