



Bull Blade Series

Rationalizing your infrastructure

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 **BULL**

Architect of an Open World™



Bull Blade Series enables an immediate sharing of application environments. Their high memory capacity combined with powerful virtualization solutions make them particularly well adapted to the consolidation of multiple servers. In addition their integrated administration facilitates the deployment of large configurations. Thanks to their consolidation, virtualization and management capabilities, Bull blade servers help reduce power consumption, heat dissipation significantly and hence the carbon footprint of the Data Center, thus forming an essential part of Bull's Bio Data Center. Bull Blade Series is the ideal solution to reduce costs and simplify the implementation of server-based infrastructures and operations.

Rationalizing your infrastructure

Thanks to the high flexibility and savings they provide, Bull Blade servers play an increasing role in IT infrastructure rationalization projects.

The ideal platform for consolidation and virtualization.

Today data centers are confronted with growing space constraints, which in turn result in complex deployments, under utilization of resources and high heat dissipation. As an answer to this Bull blade servers provide many capabilities in terms of hardware and application consolidation.

Thanks to its high memory and I/O capabilities, Bull Blade Series is ideal for the consolidation of multiple servers. With powerful virtualization functionalities such as VMware, it frees the enterprise from tasks such as: choosing and testing components, sizing of servers and integration of hardware and software components.

Through consolidation and virtualization, Bull's core expertise, resources are better used and the information system is more flexible.

An integrated and efficient administration.

With Bull System Manager, the administrator has access to every server through a module connected to the chassis. The chassis provides a single point of control for all its components. In addition, the integrated administration platform simplifies the deployment of large configurations based on application servers or infrastructures. The Bull System Manager software suite can manage all Bull servers. Thanks to powerful event collection and handling functions, Bull System Manager supports the management and control of systems and their associated operating systems. Bull System Manager is equally capable of interoperating with other systems administration platforms, such as Open Master from Bull Evidian.

A proven methodology for large consolidation projects.

The Bull UNIFY methodology offers a structured approach, taking into account the complexity of consolidation projects as well as the organization's technical, organizational and financial objectives.

A new vision of the Data Center to:

- Manage heterogeneity and reduce carbon footprint;
- Optimize topology to liberate power and increase flexibility;
- Deliver the levels of services (SLA) required by users with highly automated processes.

Bull Blade Series

Scalability, energy efficiency and lower cost of ownership

Bull Blade Series platforms include in one single chassis the blade servers, management modules and networking, thus simplifying system operation and reducing the cost of ownership.

Bull Blade Series

Bull Blade Series.

By combining NovaScale and Escala blade servers (respectively based on multicore Intel Xeon® and IBM POWER6 processors) in a single chassis, with common management, Bull Blade Series provide a shared solution for AIX®, Windows®, Linux® and VMware® environments. Bull Blade Series contributes to the rationalization of infrastructures and control of heterogeneity. Making the most of the low heat dissipation delivered by POWER6 and Xeon multicore architectures, Bull Blade Series is ideal for environments that have strict requirements in terms of performance, cooling and space. These features enable enterprises to cut down the cost of ownership while reducing their carbon footprint.

Bull Blade chassis.

The Bull Blade chassis provides common administration and network connectivity. Its Network Fabric delivers several types of Fibre Channel connection as well as a high performance multicanal Ethernet connectivity and many options that simplify the integration of the chassis into existing infrastructures. Furthermore, it offers complete redundancy, high flexibility and simplified maintenance.

Bull Blade servers.

Bull Blade servers combine power, flexibility and easy management in an ultra dense format. They consist of:

- NovaScale blade servers based on multicore Intel® Xeon® processor, designed for Windows® and Linux® environments;
- Escala blade servers based on multicore IBM POWER6 designed for AIX® applications.



A single point of control for all Bull servers

Event management operating control/data collection/hardware management/control of information systems

Easy-to-deploy solutions and high availability with Bull blade servers

Bull Blade Series solution with Citrix: simplifying the workstation management.

Thanks to the workstation virtualization, the Citrix solution delivers easy and on demand access to information. This solution provides: simplified and cost-effective management of workstations, access to applications, and consequently lower operational costs. Bull Blade Series solution combined with Citrix reconciles requirements which may seem contradictory such as price/performance or security/accessibility.

RDS (Rapid Deployment Solution): reducing costs, complexity and accelerating software deployment.

RDS is simple to use and an efficient solution for a rapid and reliable deployment of hundreds of blade servers running Windows® or Linux® across the enterprise. RDS thus contributes to reducing the total cost of ownership, as well as providing the possibility to configure and schedule repetitive tasks from a centralized console.

R@ck 'n Roll: ready-to-use configurations.

Bull's R@ck 'n Roll offer delivers solutions integrated into racks: from single servers connected to storage subsystems to advanced SAN configurations or clusters. This modular offer arrives factory-tested for almost instant use on the customer's site.

ARF (Application Roll-over Facility): an enterprise-class solution for high availability.

ARF is a High Availability solution developed by Bull for Escala servers in AIX® environments. It enables system administrators to move an application and its environment easily from one system to another in order to manage system workload issues, for maintenance purposes or in the event of hardware failure. The ARF facility provides low cost and easy-to-use application availability.



Professional services

Optimizing your infrastructure in AIX, Windows and Linux environments

As an architect of Data Center performance, Bull helps you to diagnose, design, implement, support and optimize your infrastructure. The entire lifecycle of an infrastructure based on Escala & NovaScale Bull blade servers is managed through:

- Consulting and architecture assessment services;
- Management of optimization projects;
- Infrastructure maintenance and support;
- Disaster Recovery Services.

Consulting services and architecture assessment.

The first step of infrastructure optimization consists in analyzing the existing infrastructure in terms of applications, servers, networks, sites etc. Their performance and levels of availability are then measured and potential problems identified. This information will enable definition of the target architecture.

Management of optimization projects.

Bull helps customers with their infrastructure virtualization, consolidation and optimization projects, relying on its expertise in mission-critical and secured IS and in server and storage technologies, combined with sound knowledge of software solutions and extensive know-how in the fields of integration and outsourcing.

Bull can help you with every stage of your virtualization project, starting with a feasibility study including an audit of existing systems and applications and consulting services to define a virtualization strategy to meet your objectives. Bull can also help you to define the target solution in terms of system architecture, network and storage as well as accompanying you through the Proof of Concept (POC) stage to assess the Total Cost of Ownership for analysis of the impact of virtualization.

Infrastructure Maintenance and Support.

Bull offers a variety of maintenance contracts providing you with hardware and software support adapted to your requirements. With the HA999 high availability maintenance contract, potential failure risks can be minimized and the implemented solution can be supported. The HA999 contract guarantees an annual availability of 99.90%, i.e. total downtime of just 8 hours 42 minutes for a total of 8760 hours uptime per year in a 24/7 operating environment. All HA999 customers are supervised 24/7 by the HA-Center, a dedicated technical center specialized in high availability. As well as the HA999 contract, other support services are available including permanent remote monitoring of an activity or a specific application, rapid intervention in the event of a crash or a dedicated system engineer called TAM (Technical Account Manager) who supports the customer during each step of system monitoring.

Disaster Recovery Services.

Bull provides a full range of disaster recovery services. These services take into account the criticality of each application. They include an internal/external recovery center and additional mobile resources with logistics available 24/7, to cope with partial disasters. All procedures have been tested in crisis simulations to ensure immediate applicability. Service continuity is thus guaranteed with minimum impact for the company in case of major disaster.

They put their trust in Bull



Montfavet Hospital Center

Blade servers for disaster recovery.

The Montfavet Hospital wanted to modernize its information systems and improve the levels of IT security. It decided to upgrade its IT systems architecture and equip itself with a business recovery suite, so it can implement a Disaster Recovery Plan in the event of a major incident. Bull was awarded the project to enhance the IT architecture which is built on a VMware virtualization solution based on Bull Blade Series (NovaScale blade servers equipped with multi-core Intel® Xeon® processors) infrastructure. The new architecture recommended by Bull features optimum redundancy between the two computer sites, to ensure effective implementation of the Disaster Recovery Plan.

One of the key challenges of the project was to ensure perfect parallel running of the two systems during the change-over phase, and to effectively manage the migration to the new architecture. With this in mind, Bull's capacity to manage complex projects and deploy the many different kinds of expertise needed to modernize this kind of architecture was an essential asset.

Wehkamp

leading on-line retailer in the Netherlands.

Blade servers for business continuity.

Its web shop, wehkamp.nl, attracts an average of 1.2 million visitors every week, realizing 80 per cent of their sales. As the site is crucially important, downtime must be minimal.

That is why Wehkamp chose Bull Blade Series as web servers and application servers. In addition Wehkamp took a High Availability 999 contract with Bull to guarantee 99.9 per cent availability per system annually. In accordance with these agreements, Bull monitors all Wehkamp's hardware and its various operating systems from the European Bull HA Center in Grenoble (France). The HA999 contract guarantees a very high level of availability since downtime does not exceed 8.5 hours per system and per year. Bull achieves this by watching the Wehkamp environment proactively, 24/7.

wehkamp.nl

10 reasons to choose Bull Blade Series for your applications

1. Energy efficiency.

Optimization of the power/watt ratio thanks to advanced virtualization functionalities.

2. Best consolidation and virtualization technologies.

VMware, Microsoft Hyper-V, PowerVM, Citrix Xen Desktop and Intel® Virtualization Technology solutions combined with hardware partitioning enable you to cut down costs and simplify your infrastructure.

3. Partnerships with market leaders.

Bull Blade platforms are designed by Bull in close cooperation with the leading technology providers.

4. Investment protection.

With Bull Blade chassis, you benefit from compatibility of several generations of blade servers.

5. Freedom of choice.

With leading UNIX/RISC or Linux/VMware technologies your IT architecture is built on solid and proven foundations.

6. Centralized administration for all Bull servers.

Bull System Manager simplifies operations and reduces costs by being able to manage everything from a single server to many hundreds of servers equally effectively.

7. A wide variety of validated and integrated storage solutions.

Bull StoreWay meets the most demanding requirements in terms of storage, archival and backup.

8. Added value for the data centers.

Bull provides solutions (RDS, BSM, ARF, R@ck 'n Roll) that simplify the deployment and management of blade servers.

9. Comprehensive and simple services.

Bull offers simple and comprehensive solutions for the high availability and management of virtualized infrastructures.

10. Proven expertise.

Bull's expertise centers for AIX®, Linux®, Windows® and VMware solutions help you deploy your applications with services such as infrastructure assessment or performance optimization.



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