

■ PlusServer AG | Product Description

# Managed Cluster

Germany, Version 3.1-EN, as of April 1, 2009

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## 1. Introduction

The product Managed Cluster is aimed especially at companies that are looking for a highly available and flexible solution for their critical web applications. With this product, the customers can concentrate on their core business while delivering a wide range of scalable services to their customers or employees.

Large and complex server architectures require the highest possible perfection in planning and implementation. Each PlusServer cluster will be managed on the basis of proven, documented processes and technologies. All processes will be created individually together with the customer, and later implemented by PlusServer.

Upon request, our technical sales team will consult with customers (including on-site visits) about the possibilities they can realize with a PlusServer cluster system.

## 2. Product Description

The product Managed Cluster enables the customer to have a highly available cluster implemented by PlusServer according to his needs. Here, the focus is always to provide the customer with the best solution for performance, availability and compatibility.

Network connectivity is realized via the redundant PlusServer infrastructure. Optionally, the complete administration and maintenance of the configuration can be carried out by PlusServer. The service covers the hardware, the connection to the PlusServer IP Network, the configuration of the server and all associated Managed Services. In addition, the customer is supported by the PlusServer Support Team.

Managed Cluster includes the following services:

- Consulting (to acquire the technical specifications of the individual service)
- Individual design of the infrastructure
- Initial configuration of the server, network infrastructure, load balancer, etc.
- Configuration adjustments in consultation with the customer
- Documentation of the service and configuration
- Maintenance and monitoring of the infrastructure through PlusServer

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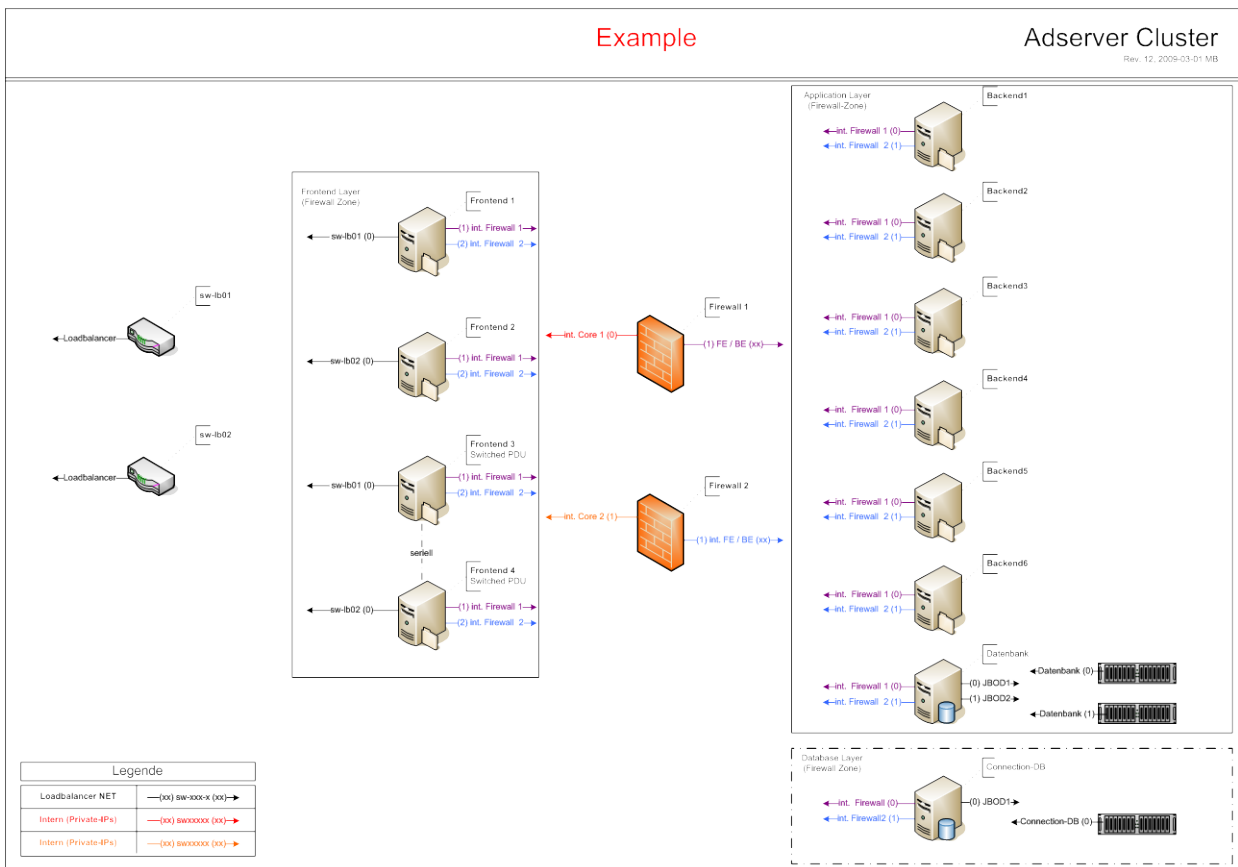
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## 3. Scenarios

The following three examples show cluster setups, which have been individually planned in this form together with the customer and are now being operated by PlusServer.

### 3.1 Ad Server Cluster

In this case, we realized a cluster of ad servers with focus on behavioral targeting for a major international provider. The shown components were integrated under load and during operation into the already active infrastructure of the customer (approximately 120 servers). The strict separation of different application areas over a redundant firewall and VPN configuration was extremely important for this customer.



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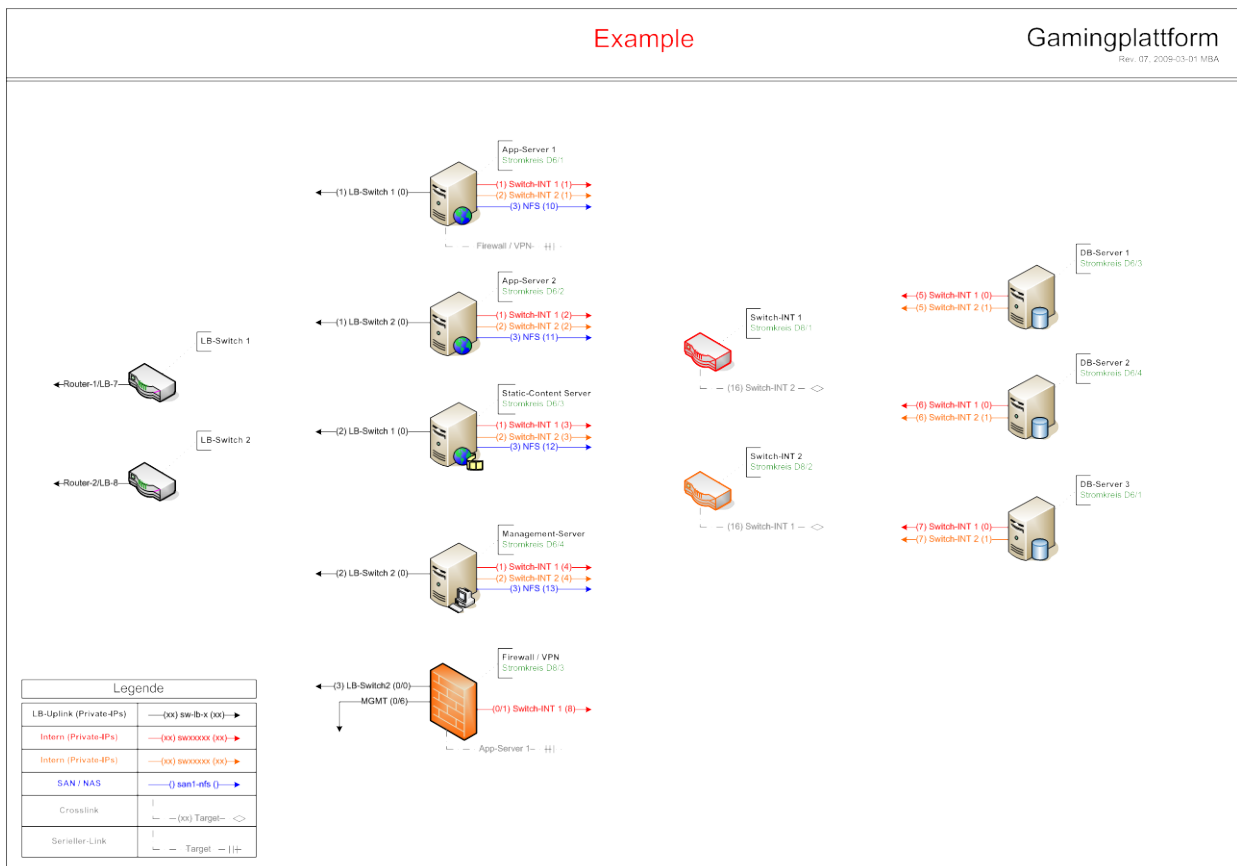
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## 3.2 Gaming Platform

This example shows the infrastructure of a large European gaming platform. The special focus in this case was laid on the full redundancy of all application relevant components, high performance per server, and fast and easy expandability.

The web servers are connected via a GBit link to the load balancers, and use a shared storage via NFS, and also a database failover cluster.

A separate machine is used for management tasks and as a staging platform. Access for maintenance work and to secure the internal network is done solely through a firewall / VPN. A firewall and VPN allows access for maintenance tasks and is used to secure the internal network.

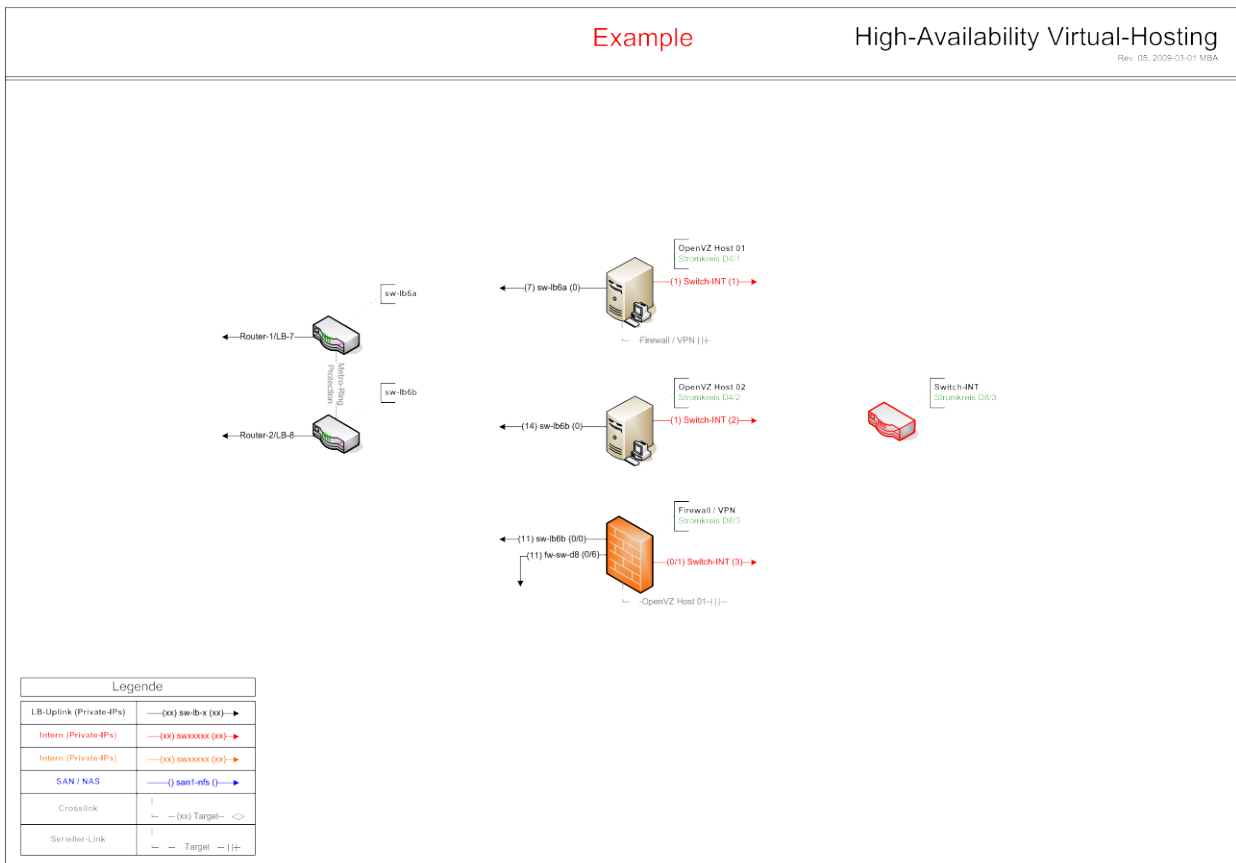


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## 3.3 High Availability Virtualization

The peculiarity of this setup configuration lies in the failover setup on two hosts using a Virtuozzo basis. The goal was an inexpensive yet high-performance setup configuration which leverages a load balancer, a flexible configuration, and all virtual machines are protected from each other.



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## 4 Configuration settings

The configuration and administration will be the sole responsibility of the PlusServer staff. For this, an initial meeting between the customer and a PlusServer Technical Consultant will be arranged. If the client requires changes to be made to the Managed Cluster, a change request needs to be submitted by the client and approved by the Technical Consulting team. Once approved, the requested changes will be carried out by the PlusServer Technical Team.

## 5 Service Level

A service level agreement is offered for PlusServer Managed Cluster. It contains service availabilities, maximum recovery times, and maximum response times. The Service Level Agreement is provided as a separate document.

## 6 Service Management and Support

### 6.1 System Monitoring

PlusServer maintains a Support and Service Center for proactive monitoring, which is staffed by experienced system administrators around the clock (24 hours per day, 365 days per year). If the Support and Service Center identifies a service failure, arrangements to resolve the failure will be conducted immediately.

### 6.2 Hotline

PlusServer is available for its customers 365 days a year around the clock through its hotline. All necessary information about the hotline is provided to the customer after the service has been provisioned. PlusServer confirms incoming failure reports by customers in general within 60 minutes and informs the customer at short notice about the troubleshooting status.

### 6.3 Maintenance

PlusServer announces scheduled maintenance, which may impact a customer's service, at least three business days in advance. Scheduled maintenance is normally performed between midnight and 6 a.m. CET.

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**Sales Tax ID:** DE 216740823