

Pirelli combines HP, Oracle and SAP technologies to protect vital business continuity



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Ezio Bombardelli, IT systems manager, Pirelli





The Pirelli Group has a long industrial tradition and is ranked among the world's leaders in every sector in which it operates.

For most people, the name of Pirelli is primarily associated with car tyres and its former communication cable business. Not so well known, however, is its more recent move into the real estate market with the acquisition of both Italian and foreign companies in this sector.

The efficient worldwide running of these business strands is totally dependent on SAP business software. Pirelli was one of the first SAP customers in Italy and for ten years it has run virtually every SAP module. All aspects of its business now rely on v4.6 modules of SAP, from customer relationship, supply chain and product lifecycle management to financials and warehousing.

Worldwide importance

The high availability of Pirelli's SAP business applications is especially critical because Pirelli runs a 'one client' system from its Milan headquarters which supports operations in the UK, Germany, Spain, Italy, Greece, Poland, France, USA, South Africa, Egypt, Japan, Australia, Singapore, China, Brazil, Argentina, Venezuela, Mexico and Belgium.

"All Pirelli offices in these countries connect to this one system through dedicated lines," said Ezio Bombardelli,

IT systems manager at Pirelli's technology competence centre. "SAP represents the core business model for Pirelli and we have about 2,000 daily online users.

"In theory we are allowed a maximum of three hours failure, but any downtime jeopardises our ability to do business. Everything would stop - from warehousing to production, order management and sales. It would also cause downtime for other ancillary companies connected to Pirelli, so the constant availability of SAP is quite vital to the company's existence."

The power to run this worldwide SAP installation comes from two high-end HP Superdome servers, each with 64 CPUs and two HP rp8420 servers, each with 32 CPUs, and all running HP-UX 11i v2.

Cluster environment

Pirelli has been an HP customer since 1996. To increase efficiency in the management of its environment, it runs HP Operations software and in 1997 it adopted HP Serviceguard, the HP-UX 11i clustering software that provides a highly available environment.

However, given the importance to the business of the G20 SAP R3 system, Pirelli recently decided to adopt an Oracle 9i Real Application Cluster (RAC) solution designed to provide scalability and high availability of the SAP R3 G20 database component. To further underline its business continuity and high availability requirements, Pirelli has also implemented the

Serviceguard Extension for SAP (SGeSAP), which takes Serviceguard's powerful failover capability into the SAP R/3 environments and Serviceguard Extension for Real Application Clusters (SGe RAC), which ensures a high availability of databases even if a hardware component should fail. In addition, Pirelli takes advantage of the HP-UX Workload Manager toolkit for SAP to automate resource allocation among server partitions and manage SAP workloads more effectively.

This is believed to be the first Oracle RAC implementation for SAP with HP-UX 11i and stands as formal certification of RAC solutions with SAP. It demonstrates how Oracle RAC and SAP blend with an HP Virtual Server Environment to create high-end availability.

It is supported by a critical systems contract with HP that guarantees hardware repair within six hours and the resolution of software problems within eight hours.

Meeting business needs

"We believe that adopting these solutions will provide us with a much safer system," added Bombardelli. "We are aiming for 100 per cent availability but 99.9 per cent will be good enough."

"With HP Serviceguard Extension for SAP and Serviceguard Extension for RAC running in an HP-UX 11i environment, we have the high availability we need for our mission-critical SAP environments," Bombardelli continued. "In addition, by using HP-UX Workload Manager toolkit for SAP, we can simplify management of our SAP workloads. This toolkit provides insight into the types of active SAP jobs we have running, and allows us to balance demands with available compute resources. As a result, we are better able to meet our internal service-level agreements, while reducing the time and effort required by our IT staff."

"This solution also gives us a fast recovery system and a higher level of flexibility in managing the system, especially when it comes to maintenance windows and enables an increase in performance. We use HP Serviceguard to create and maintain a highly available virtualised environment. While this doesn't give us complete virtualisation, it gives us a flexible system that enables us to make resources available to meet the business requirements. This has meant a massive increase in performance, high availability and reliability of the systems. Combining HP and Oracle solutions in this way will definitely enable us to avoid downtime costs."



Challenge

- Italian giant, the Pirelli Group, is a leading provider of tyres for the automotive industry and a growing force in the real estate market.
- A comprehensive suite of SAP business modules is at the core of Pirelli's operations with all its worldwide offices connected to a 'one client' system in Milan.
- Failure of that system would have disastrous global consequences so Pirelli needs to do all in its power to ensure the high availability that is vital for business continuity.

Solution

- Pirelli runs the SAP software on high-end HP Superdome servers with HP-UX, and for many years it has used HP Serviceguard to increase availability by switching resources between servers.
- To move towards a virtualised environment with even greater flexibility and availability, Pirelli also recently instituted an Oracle Real Application Cluster (RAC). This is HP's first combination of HP-UX, SAP and RAC.
- Serviceguard Extensions for SAP (SGeSAP) and Serviceguard Extensions for Real Application Clusters (SGeRAC) are also used.
- HP-UX Workload Manager toolkit for SAP to automate resource allocation among server partitions and manage workloads more effectively.

Results

Simplicity:

- HP-UX Workload Manager toolkit provides simplified management of SAP workloads helping Pirelli better meet internal SLAs and reducing time and effort of IT staff.

Agility:

- Pirelli now has the necessary resources to meet its worldwide business challenges.

Value:

- Fast recovery, greater management flexibility and better use of resources has resulted in increased performance and reduced costs.
- Availability is now so high that Pirelli aims for 99.9 per cent uptime of its SAP environment.

Customer at a glance

- **Industry sector:** Automotive, communications and real estate
- **Company:** Pirelli & C. S.p.A.
- **Headquarters:** Milan, Italy
- **Founded:** 1872
- **Telephone:** +39 (0)2 64421
- **Number of employees:** 28,000
- **URL:** www.pirelli.com

Why HP?

- Pirelli has been a customer of HP since 1996 and says it was 'the best thing we have ever done'.
- The combined HP, SAP and Oracle solution exactly met the customer's commercial needs.
- HP offers six hour critical systems support on hardware and eight hour software support.

Hardware

- 2 x HP Superdome servers, each with 64 CPUs running HP-UX 11.2
- 2 x HP rp8420 servers, each with 32 CPUs and running HP-UX 11.2

Software

- HP Operations software
- HP Serviceguard
- HP SGeSAP
- HP SGeRAC
- Wide variety of SAP modules
- HP-UX Workload Manager toolkit
- Oracle Database 9i RAC

HP Services

- Critical system support - six hours for hardware and eight hours for software

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