



IBM System p

IBM System p and Oracle in Vojvodjanska banka Case study

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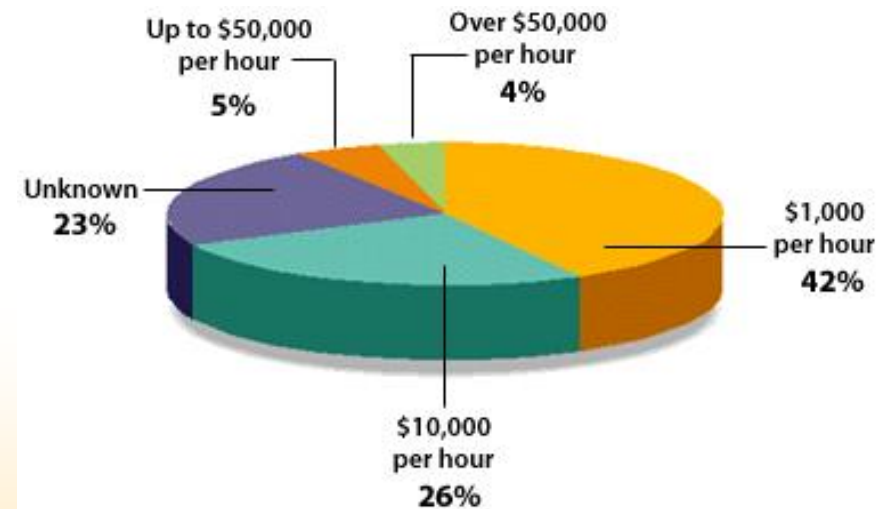


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IBM Systems

Downtime and Poor Performance are Expensive - *Both Financially and in Terms of Client Perceptions*

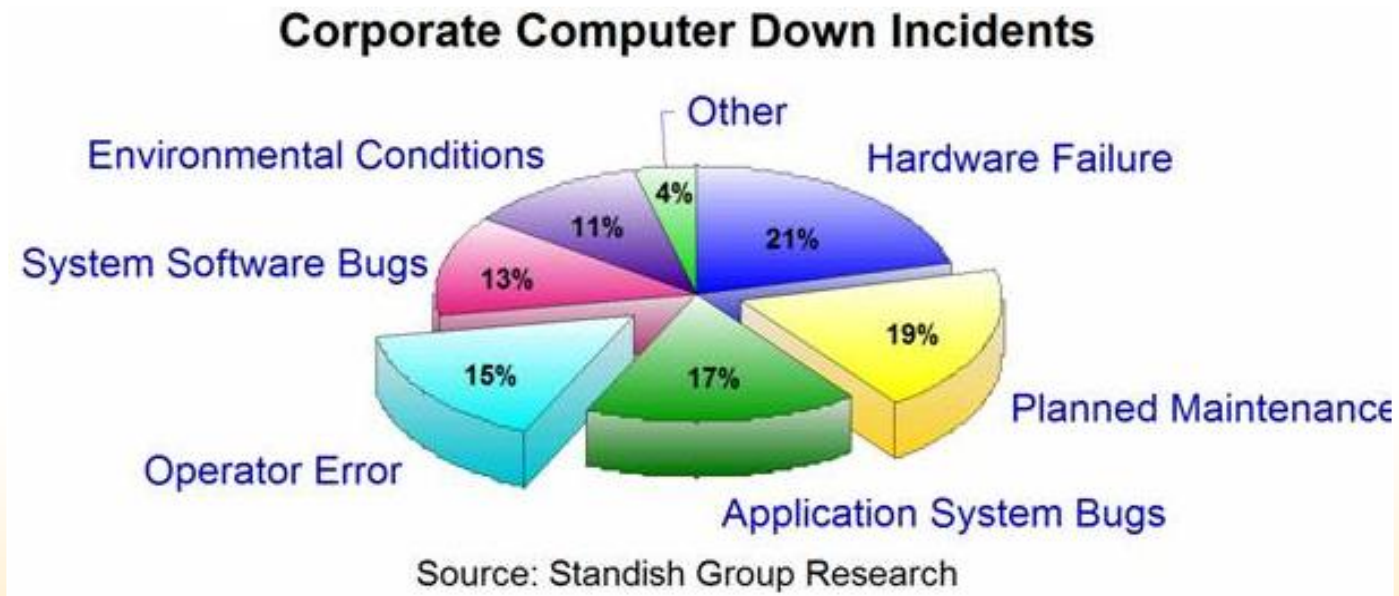
- “Overall downtime-costs average 3.6% of annual revenue.” – Infonetics
- Many studies estimate the average cost of downtime at over \$5,000/hour
- Popular Web sites estimate the cost of downtime at millions of dollars
 - A 22-hour crash in June, 2003 cost eBay an estimated \$5M
- Losses go beyond immediate sales revenue
 - To clients, availability equates to reliability and trustworthiness
 - Internal application failures prevent employees from working



SOURCE: INFONETICS

Although Hardware is Now Very Reliable, Hardware Failures Account for a Small Minority of System Outages

- Several studies place the proportion between 20% and 45%
- Human error, software error and planned maintenance cause the majority of service outages



Vojvodjanska banka

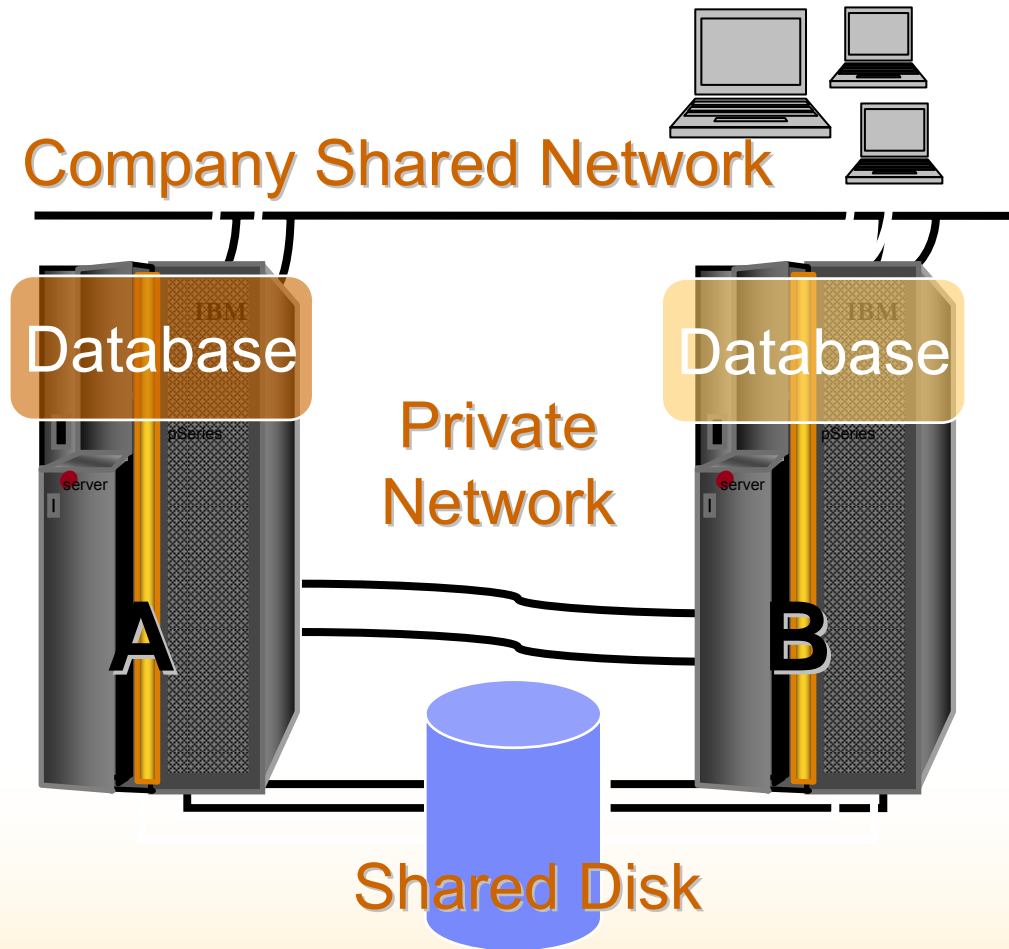
- **One of the biggest local bank in Serbia (3000 employs)**
- **Now part of National Bank of Greece group**
- **Developing in house core banking application on Oracle**
- **Bank too big for old 2 tier app and hardware**
- **No big time frame to buy and adopt new SW and HW**
- **End of year problem**

Vojvodjanska banka

- **Decide to go to Oracle 10g Real Application Cluster**
- **Oracle 10g and RAC**
 - Oracle CV,
 - ASM, ...
- **IBM System p and storage hardware**
 - 2 x System p p55A servers
 - 2 x IBM Storage DS4800
 - Tape autoloader
 - Tivoli Storage manager

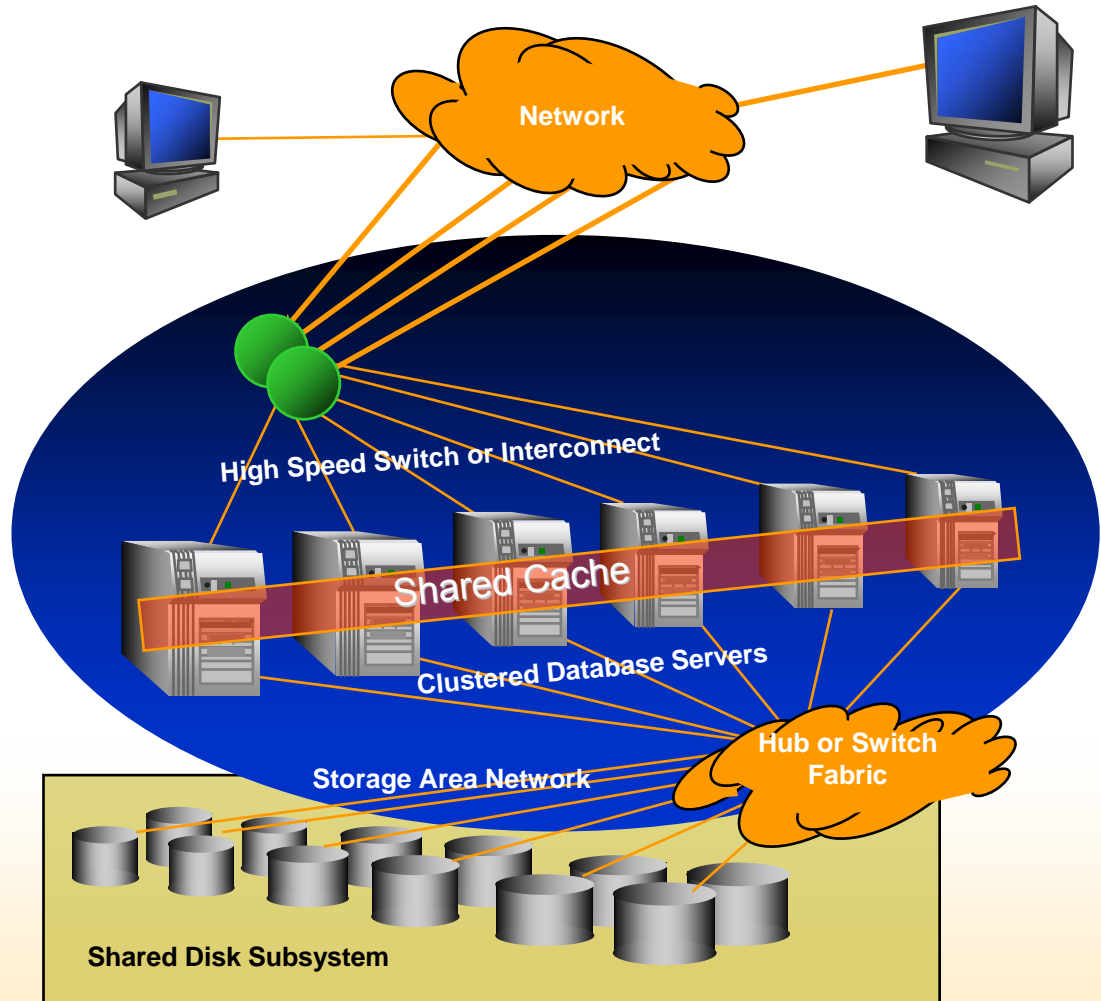
RAC Protects Against Service Outages by Detecting Problems and Quickly “Failing Over” to Backup Hardware

- **Two nodes (A and B)**
- **Two networks**
 - Private (internal) network
 - Public (shared) network
- **Shared disk**
 - All data in shared storage available to both nodes
- **Critical applications**
 - Database server
 - App server
 - Dependent on DB



Introducing Oracle Real Application Clusters (RAC)

- Supports all Oracle database applications
- Allows flexible deployment
 - Add capacity on demand
 - Manage cluster centrally and as a single image
- Highly available
 - Transparent failover of applications and users
- Full shared cache for performance and scalability
 - Cache-to-cache data shipping across nodes – faster I/O
 - Best performance and scaling
 - For read-only operations
 - When users and/or data can be partitioned



Conclusion

- **Performance and scalability**
- **TCO**
- **RAS features**
- **Utilization**
- **Management**
- **Power and space**
- **Capability for future growth**
- **Oracle and IBM commitment to collaborate and invest**