



IBM Oracle International Competency Center

IBM ICC zSeries Projects for Oracle 10g

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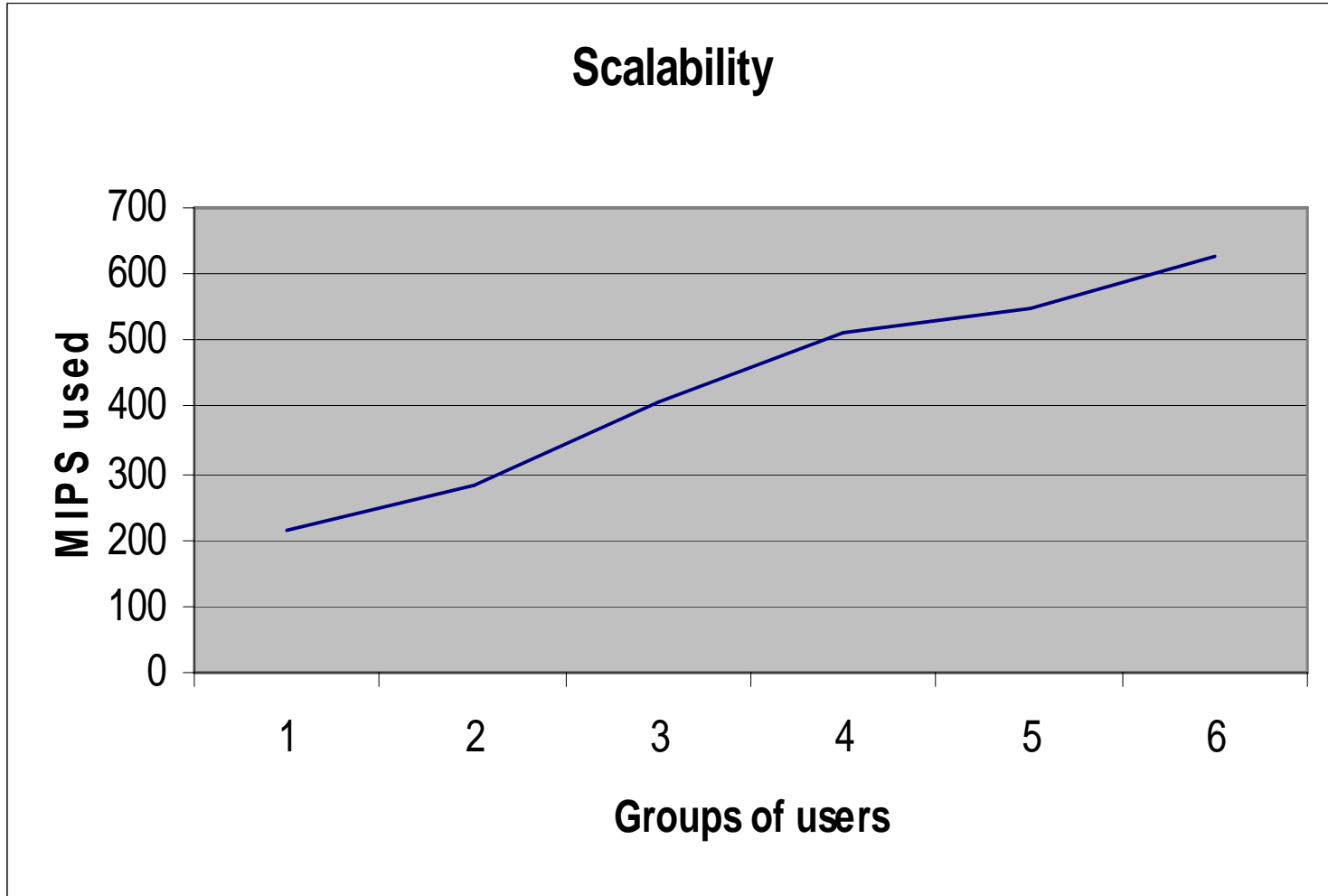
Overall Strategy

- Project Deliverables
 - **SHARE presentations twice a year**
 - **One Redbook**
 - **Hands on education material**
 - **SIG Conference, IBM sessions**
- IBM / Oracle on zSeries team
 - **Work closely with JAPAN, MOP(EMEA), USA / POK, Canada and Oracle support (customer problems)**

zSeries Projects Completed

- Initial Sizing runs on with 11.5.9 kit
- Scalability tests in Montpellier and Boeblingen with SLES8
- Single instance installation chapter
- RAC installation chapter
- ASM chapter

Example of Test of OLTP users



Native Linux Scalability



zSeries Projects in Process

- COBOL testing
- TDP/TSM chapter
 - Tivoli Data Protector, Tivoli Storage Manager
- CMM (Collaborative Memory Management)
- Using LDAP (Lightweight Directory Access Protocol) server on zOS to authenticate externally Oracle users on Linux
- Performance monitoring
- OLTP Scalability tests with SLES9

ZOS

- 64 bit
 - **C compiler**
- zOS IFL like pricing
- Oracle's Commitment to ZOS
- Oracle Backup agent
- ASM

Linux on zSeries

- 9i on SLES9
- Cross over cable
- Hang check timer
- AS10g

CMM

- Feature of VM
- Monitor Linux Memory
- Reduce or increase memory given to guest
- Improve performance
- Velocity software has automated this with their monitoring tools

Velocity Resource Manager (Beta test)

- **VRM provides real time performance tuning**
 - Adjusts Linux storage dynamically using CMM when VM is constrained,
 - Requires Linux data
 - Dynamically controls CPU utilization by class of users or by accounting code
 - Requires user classification
 - Controls data acquisition from agents
 - Avoid waking up idle servers.

LDAP (Beta)

- Oracle user xxxx/pw logons on to Oracle database with authentication external
- Oracle database (with Radius adapter) goes to Radius Server
- Radius server on Linux connects to LDAP server on zOS
 - **LDAP server now part of Security Server**
- LDAP connects to RACF
- RACF checks if xxxx/pw is a valid User ID
- If yes, user is allow to logon to the Oracle Database on linux

Linux on zSeries Distribution Testing

- SLES9 - 10 1.0.3 testing - to validate SLES9
 - **Single instance tested**
 - **RAC testing in process**
 - **SUSE added raw back into the kernel for RAC and fixed IOCTL and SHMGET issues**
- Redhat 4.0 has Beta kernel with raw. IOCTL and SHMGET
- Oracle to certify 10.1.0.4 with RH4 and SLES9

Storage Status

- OSCP for DS 8000 underway in San Jose
- New DS8000 and DS6800 for Oracle
- SCSI vs ECKD performance tests on Linux on zSeries
- Clustered File Systems for use with Oracle
 - **SFS from IBM, OCFS from Oracle, GPFS for Linux**
 - **None for zSeries , planning for OCFS**
- SVC (SAN Volume Controller) – Planning a project with Oracle
- ASM (Automated Storage Management 10g Feature) – Planning several projects

Plans for more projects???

- Compiler optimization possibilities for Oracle 10g R2
- New VM version testing
- Performance test at Oracle with ECKD and SCSI -
- DCSS - shared binaries
- BI Project sizing and scalability tests in POK
- HA options for Oracle on Linux on zSeries
 - Distances on RAC, geographically dispersed and non-RAC. zLinux clusters, Oracle Dataguard
- Usage of AS10g on Linux
 - Document the installation process/failover

Plans for more projects

- **Your ideas of things to investigate**

Other possibilities?

- OCS sizing
- EBS sizing and EBS installation process
- MQ Series errors
- GRID CONTROL - using OEM to manage grid