

Best Practices for Oracle Database Administration

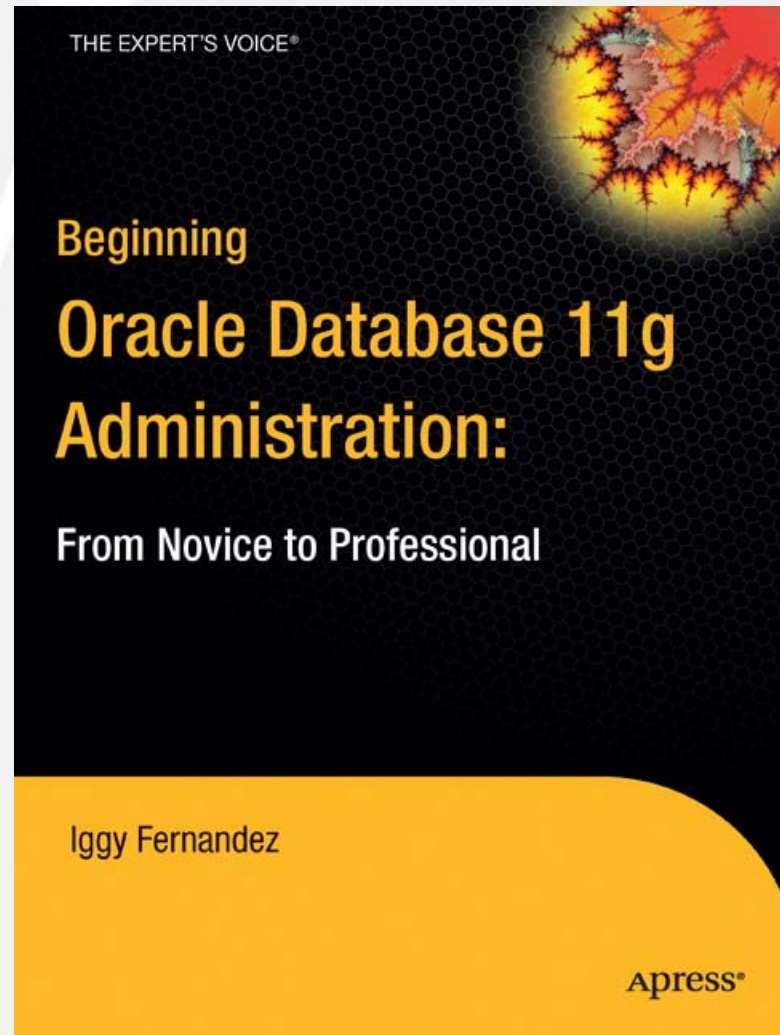
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The Tao of Pooh

If you don't know **What To Do**
Of all the things in front of you,
Then what you'll have when you are through
Is just a **mess** without a clue.

My Book



A Dentist's Office

- Satisfied patients
- Patient records
- Modern equipment
- Maintenance records
- Financial statements
- Inspection reports

Ten Deliverables

- A database that meets the needs of the business
- A secure document library
- Monitoring records, work records, and change records
- Standard operating procedures
- Procedures and records for backup testing and failover testing
- Maintenance and batch schedules, documentation, and records
- Database administration tools
- Management reports
- Exception reports
- Audit reports

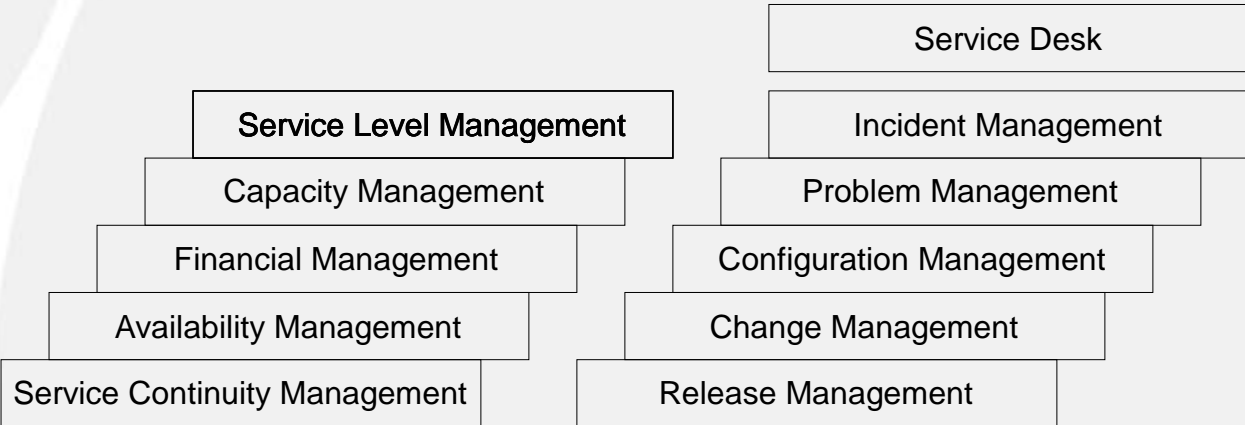
The Big Picture

The Business

Services

Application Management

Service Management



Infrastructure Management

Design and Planning

Deployment

Operations

Infrastructure

Service Level Management

The **Process** responsible for negotiating **Service Level Agreements**, and ensuring that these are met. SLM is responsible for ensuring that all **IT Service Management Processes, Operational Level Agreements, and Underpinning Contracts** are appropriate for the agreed **Service Level Targets**. SLM monitors and reports on **Service Levels**, and holds regular **Customer** reviews.

Financial Management

The **Process** responsible for managing an **IT Service Provider's Budgeting, Accounting and Charging** requirements.

IT Service Continuity Management

The **Process** responsible for managing **Risks** that could seriously impact **IT Services**. ITSCM ensures that the **IT Service Provider** can always provide minimum agreed **Service Levels**, by reducing the **Risk** to an acceptable level and **Planning** for the **Recovery** of **IT Services**. ITSCM should be designed to support **Business Continuity Management**.

Capacity Management

The **Process** responsible for ensuring that the **Capacity of IT Services** and the **IT Infrastructure** is able to deliver agreed **Service Level Targets** in a **Cost Effective** and timely manner. Capacity Management considers all **Resources** required to deliver the IT Service, and plans for short, medium and long term **Business Requirements**.

Availability Management

The **Process** responsible for defining, analysing, **Planning**, measuring and improving all aspects of the **Availability** of **IT services**. Availability Management is responsible for ensuring that all **IT Infrastructure, Processes, Tools, Roles** etc are appropriate for the agreed **Service Level Targets** for **Availability**.

Incident Management

The **Process** responsible for managing the **Lifecycle** of all **Incidents**. The primary **Objective** of Incident Management is to return the **IT Service** to **Customers** as quickly as possible.

Problem Management

The **Process** responsible for managing the **Lifecycle** of all **Problems**. The primary objectives of Problem Management are to prevent **Incidents** from happening, and to minimise the **Impact** of **Incidents** that cannot be prevented. **Problem Management** includes **Problem Control**, **Error Control** and **Proactive Problem Management**.

Change Management

The **Process** responsible for controlling the **Lifecycle** of all **Changes**. The primary objective of Change Management is to enable beneficial **Changes** to be made, with minimum disruption to **IT Services**.

Configuration Management

The **Process** responsible for maintaining information about **Configuration Items** required to deliver an **IT Service**, including their **Relationships**. This information is managed throughout the **Lifecycle** of the **CI**. The primary objective of Configuration Management is to underpin the delivery of **IT Services** by providing accurate data to all **IT Service Management Processes** when and where it is needed.

Release Management

The Process responsible for Planning, scheduling and controlling the movement of Releases to Test and Live Environments. The primary objective of Release Management is to ensure that the integrity of the Live Environment is protected and that the correct Components are released. Release Management works closely with Configuration Management and Change Management.

Benefits of SOPs

- Improves consistency
- Improves quality
- Facilitates continuous improvement
- Promotes transparency
- Improves efficiency
- Facilitates planning
- Reduces cost
- Facilitates knowledge transfer
- Reduces risk
- Improves employee morale
- Reduces blame games
- Improves customer satisfaction

Structure of an SOP

- Overview
- Testing
- Approvals
- Notification
- Backup Procedures
- Staging Activities
- Execution
- Verification
- Backout Procedures
- Signoff
- Record-Keeping
- Quality Assurance

Sample SOPs

- Starting the database and applications
- Stopping the database and applications
- Backing up the database
- Restoring the database
- Activating a standby database
- Adding space
- Adding users
- Archiving and purging

BONUS ROUND

- Remote Diagnostics Agent for Configuration Management, Change Management, and Incident Management
- Statspack for Service Level Management, Capacity Management, Incident Management,

Remote Diagnostics Agent

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Operating System Setup

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System Information

Item	Value
Host Name	IGGY
OS Name	Microsoft Windows XP Professional
OS Version	5.1.2600 Service Pack 2 Build 2600
OS Manufacturer	Microsoft Corporation
OS Configuration	Standalone Workstation
OS Build Type	Multiprocessor Free
Registered Owner	IGNATIUS FERNANDEZ
Registered Organization	
Product ID	76487-OEM-0011903-00110
Original Install Date	12/24/2006, 5:30:15 PM
System Up Time	0 Days, 8 Hours, 15 Minutes, 47 Seconds
System Manufacturer	Sony Corporation
System Model	VGN-SZ330P
System type	X86-based PC
Processor(s)	2 Processor(s) Installed. [01]: x86 Family 6 Model 15 Stepping 6 GenuineIntel ~1660 Mhz [02]: x86 Family 6 Model 15 Stepping 6 GenuineIntel ~1660 Mhz
BIOS Version	Sony - 20060710
Windows Directory	C:\WINDOWS
System Directory	C:\WINDOWS\system32
Boot Device	\Device\HarddiskVolume2
System Locale	en-us;English (United States)
Input Locale	en-us;English (United States)
Time Zone	(GMT-08:00) Pacific Time (US & Canada)
Total Physical Memory	2,038 MB
Available Physical Memory	576 MB
Virtual Memory: Max Size	2,048 MB
Virtual Memory: Available	1,981 MB
Virtual Memory: In Use	67 MB
Page File Location(s)	C:\pagefile.sys
Domain	WORKGROUP
Logon Server	WGGY
Hotfix(s)	316 Hotfix(s) Installed. [01]: File 1 [02]: File 1 [03]: File 1 [04]: File 1

Remote Diagnostics Agent

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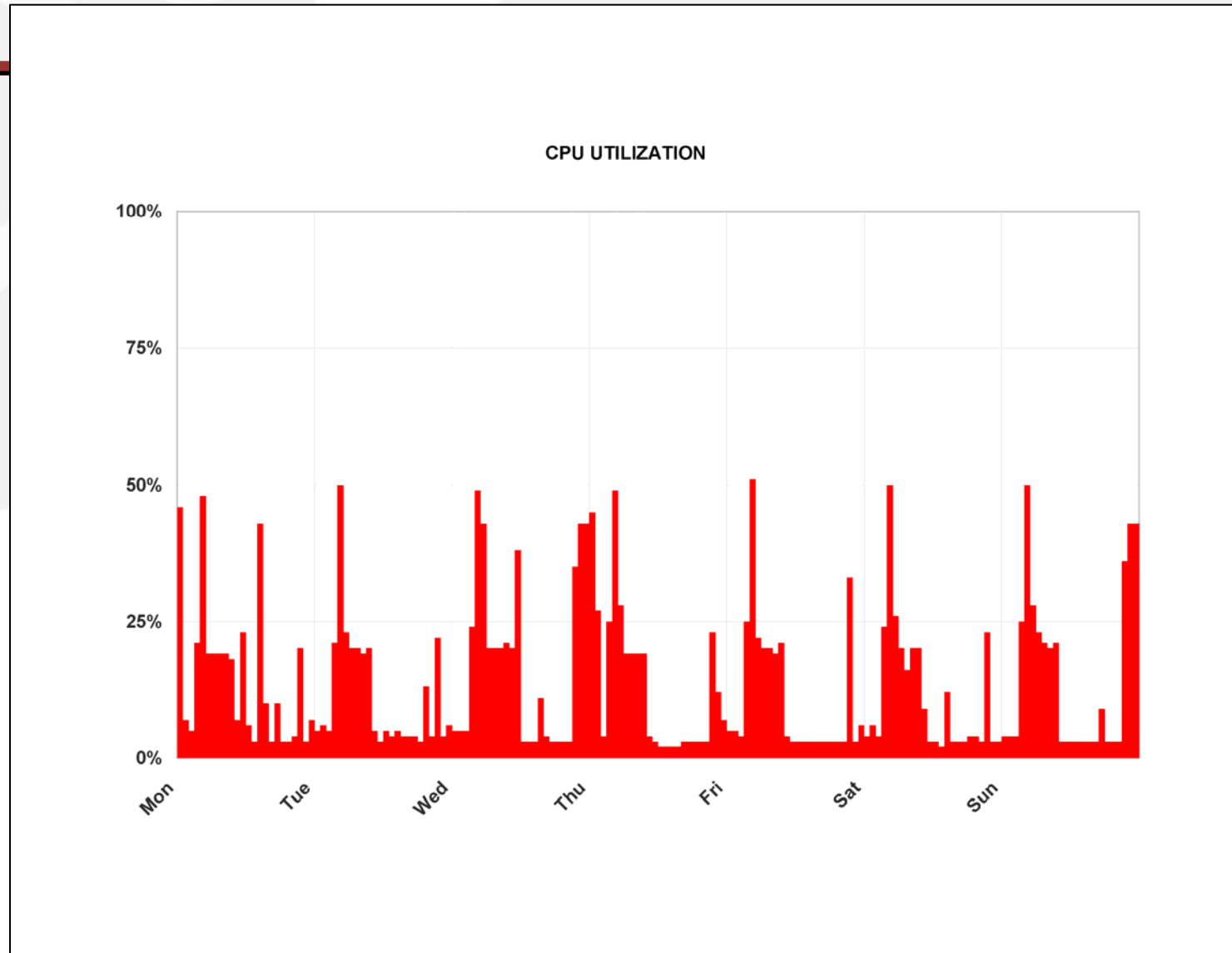
RDBMS

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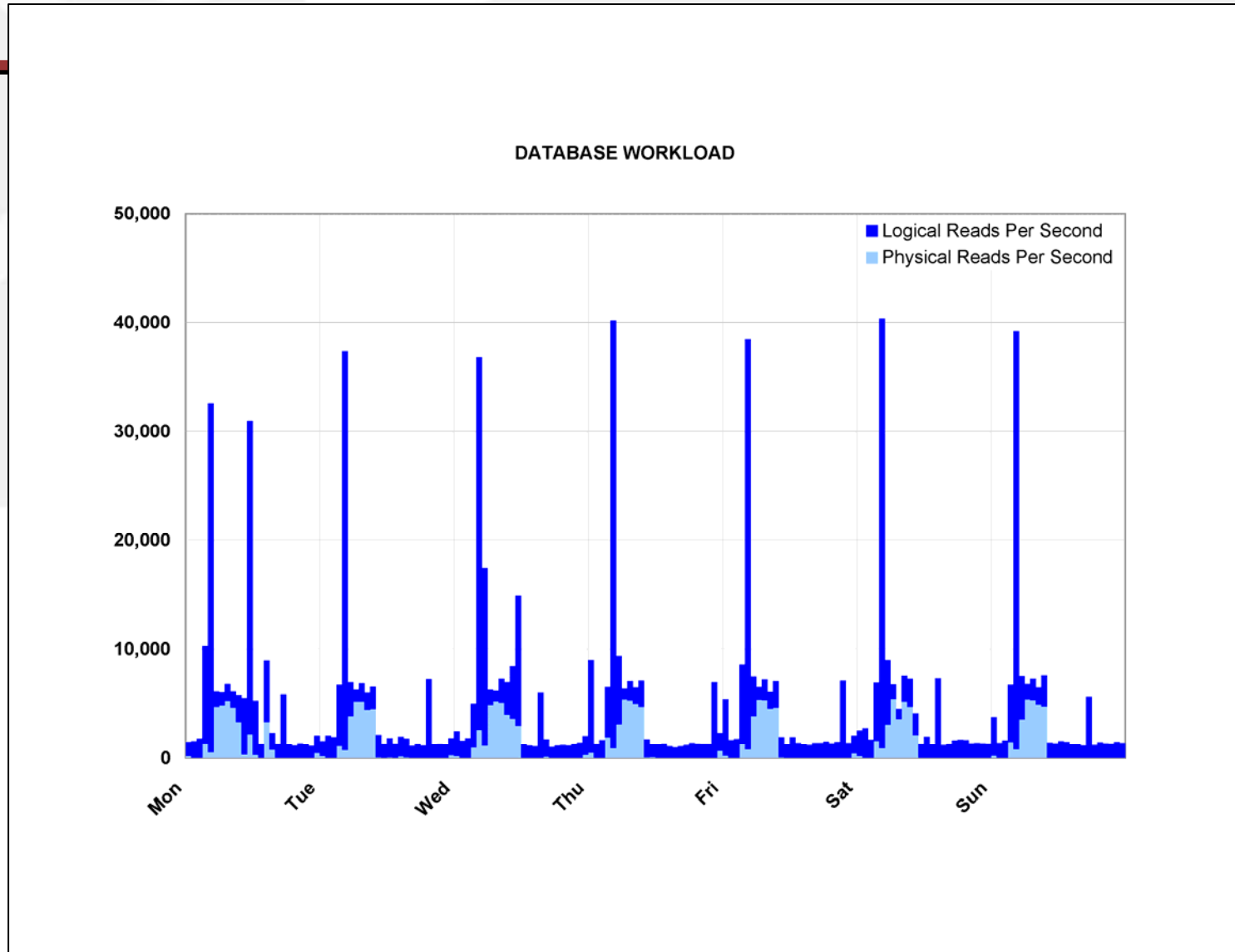
Database Feature Usage Statistics

Dbid	Name	Version	Detected Usages	Total Samples	Currently Used	First Usage Date	Last Usage Date	Aux Count	Last Sample Date	Last Sample Period	Sample Interval
4124414097	SQL Access Advisor	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Undo Advisor	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	SQL Tuning Advisor	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Segment Advisor	11.1.0.6.0	1	2	TRUE	15-Jun-2008	15-Jun-2008	1	15-Jun-2008	3628343	604800
4124414097	SQL Workload Manager	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Tune MView	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	SQL Performance Analyzer	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	SQL Repair Advisor	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	SQL Tuning Set (user)	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	SQL Tuning Set (system)	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Automatic SQL Tuning Advisor	11.1.0.6.0	1	2	FALSE	04-May-2008	04-May-2008	1	15-Jun-2008	3628343	604800
4124414097	SQL Profile	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Database Replay: Workload Capture	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Database Replay: Workload Replay	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Streams (system)	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Streams (user)	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Transparent Gateway	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Virtual Private Database (VPD)	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	Workspace Manager	11.1.0.6.0	0	2	FALSE				15-Jun-2008	3628343	604800
4124414097	XDB	11.1.0.6.0	2	2	TRUE	04-May-	15-Jun-	0	15-Jun-	3628343	604800

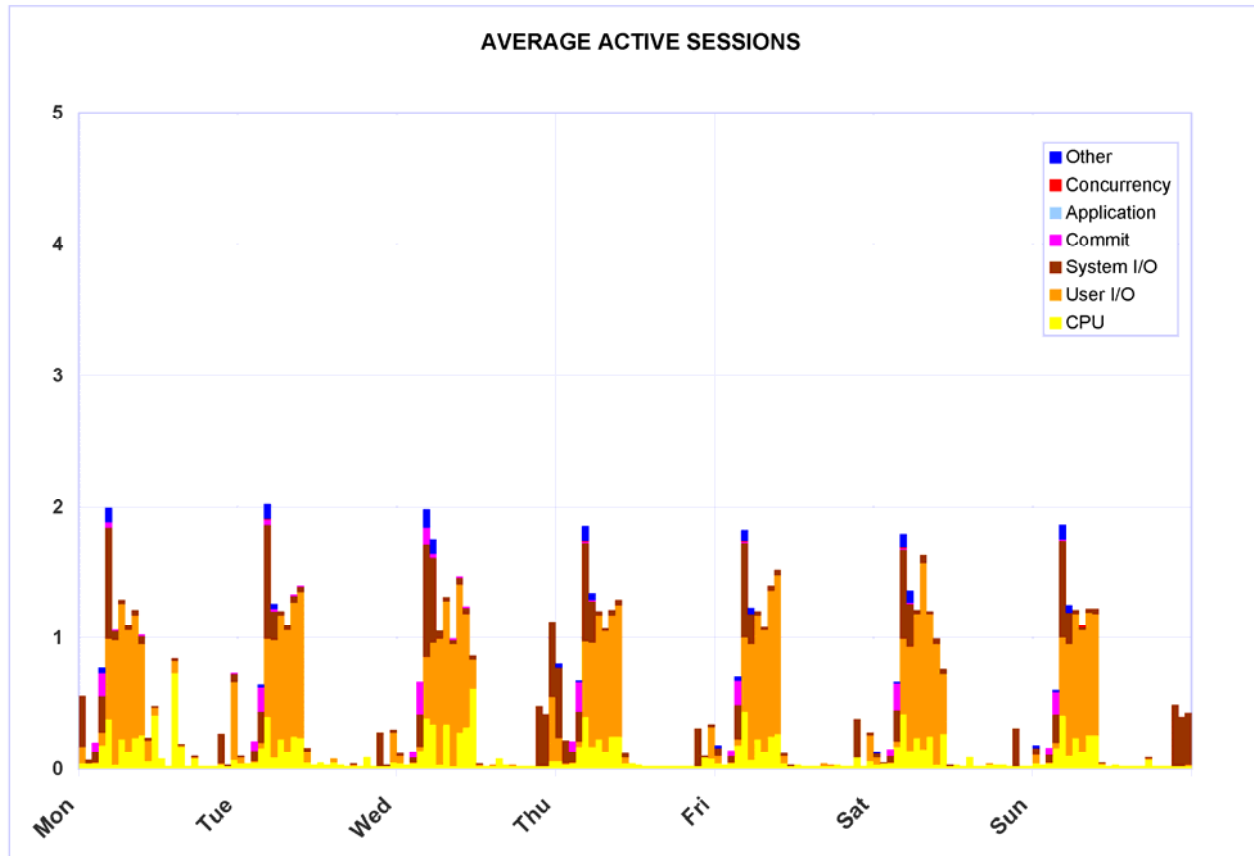
Mining Statspack Data



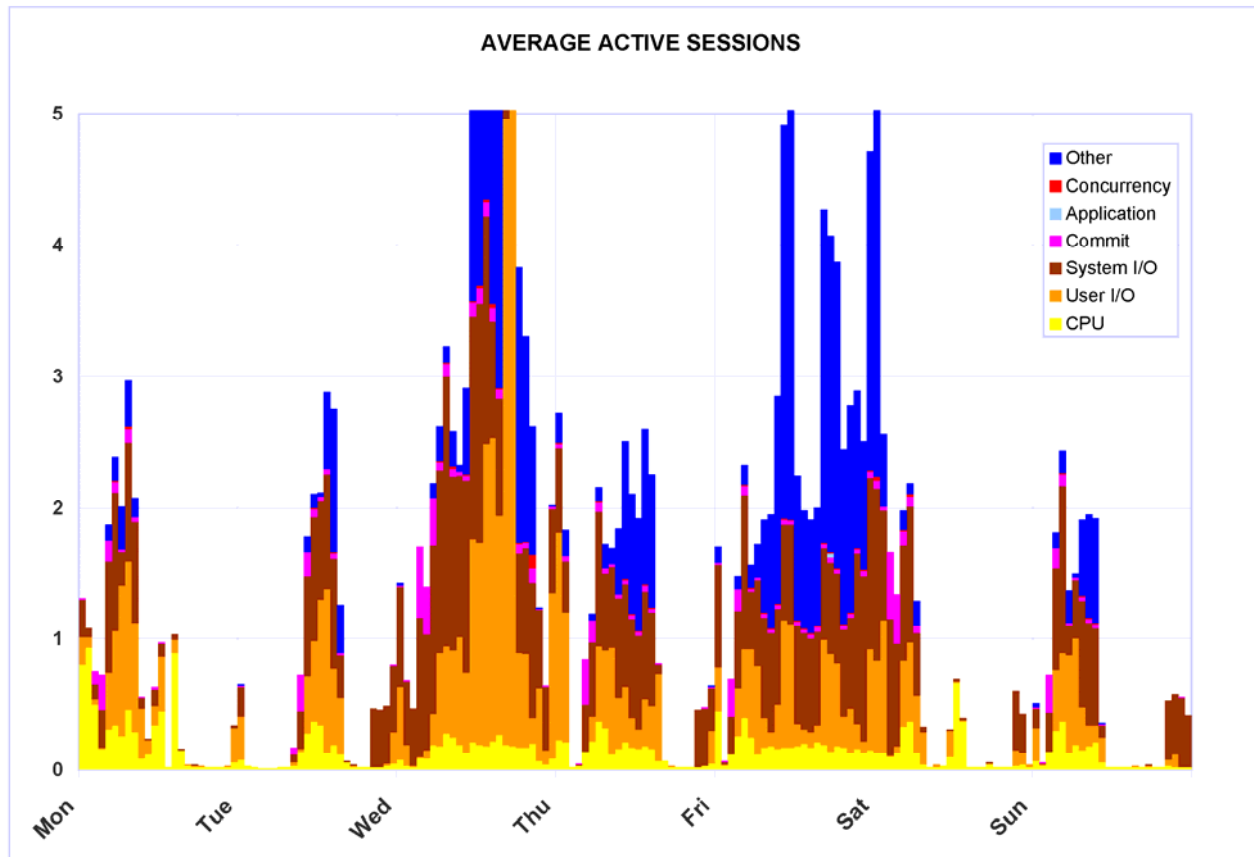
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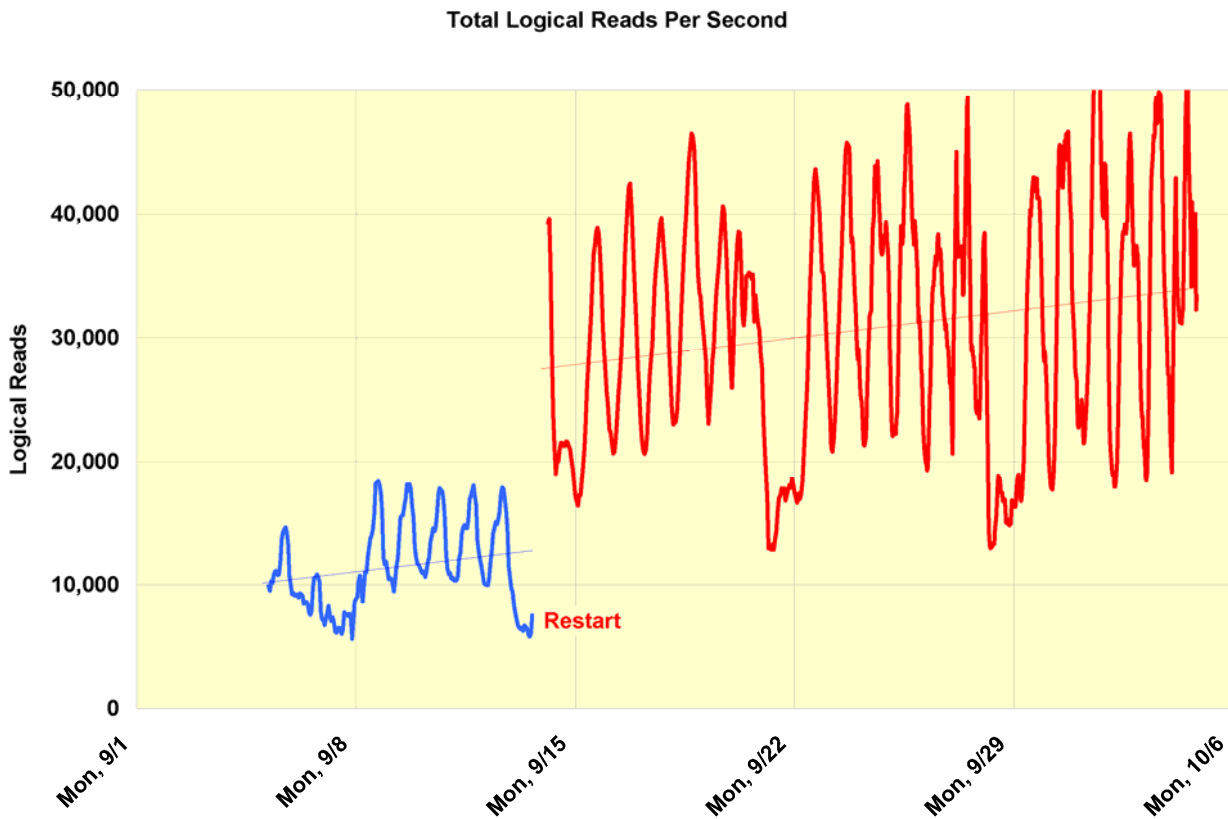
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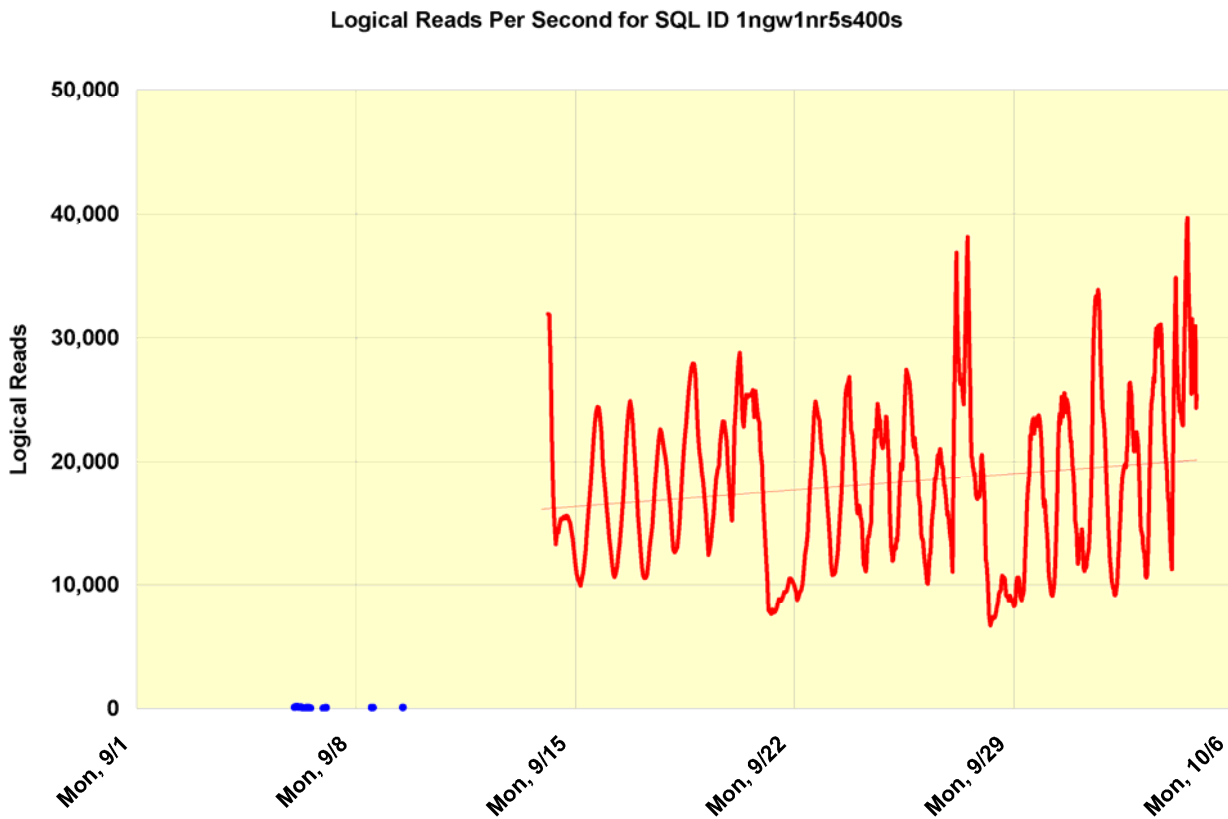
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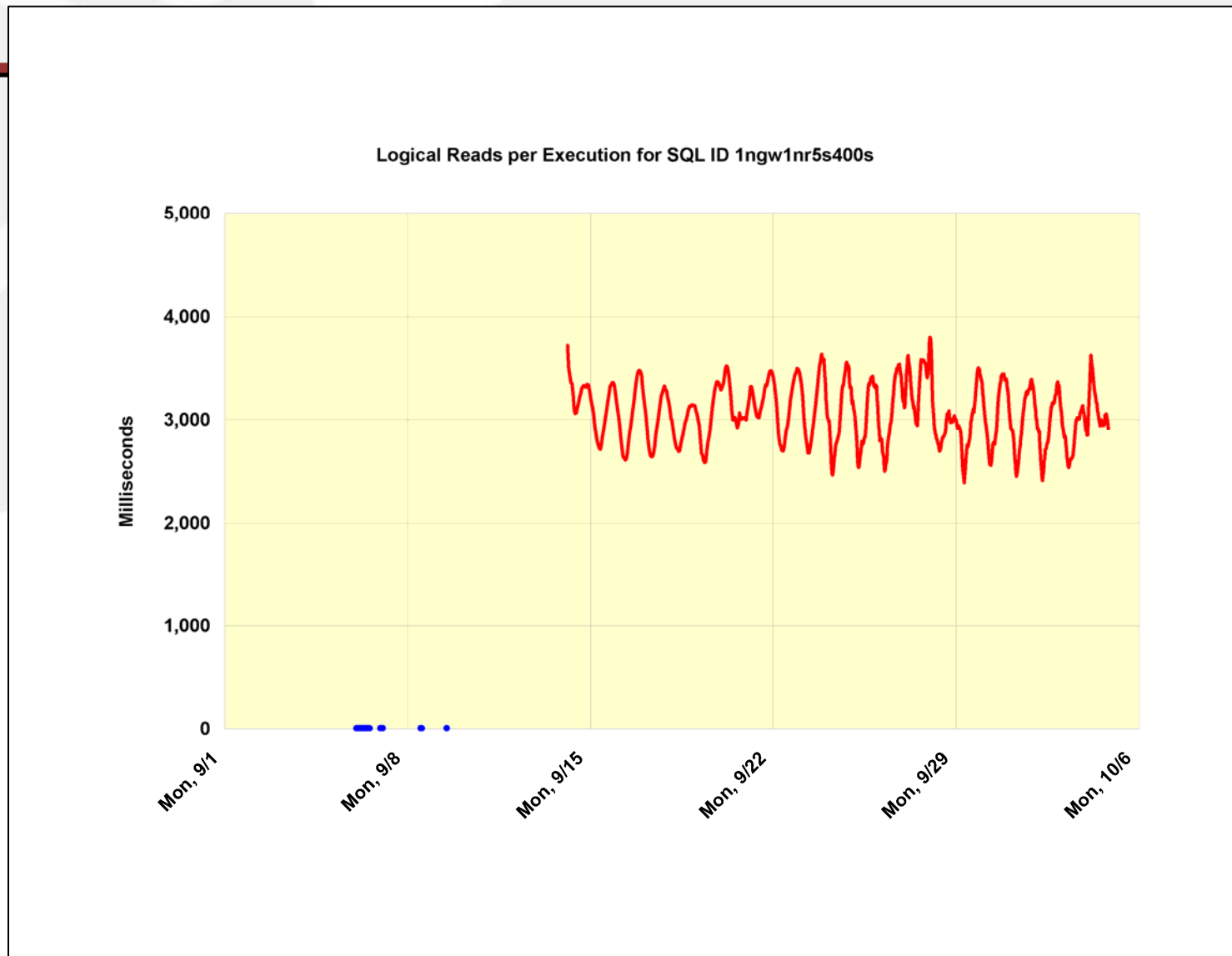
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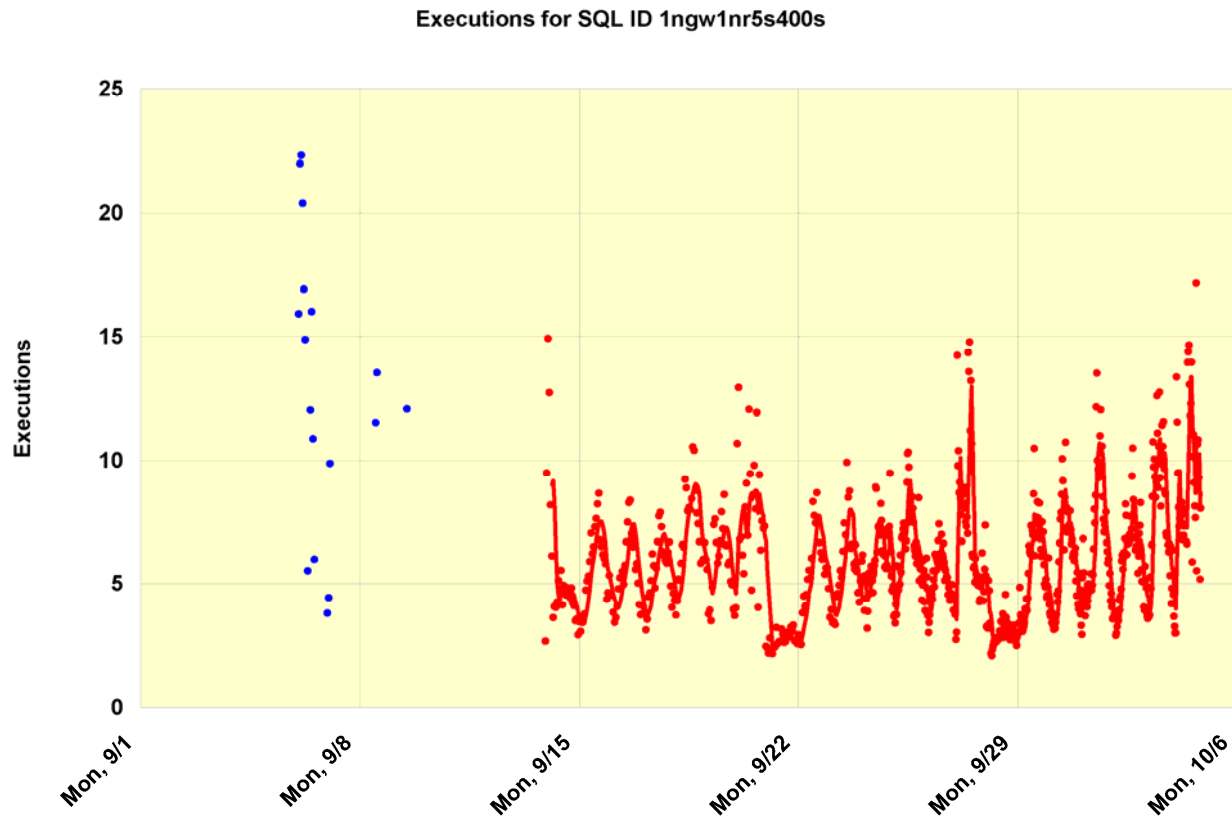
Mining Statspack Data



Mining Statspack Data



Mining Statspack Data



Summary

- The Tao of Pooh
- Ten Deliverables
- Eight Processes
- Remote Diagnostics Assistant
- Statspack

CONTACT INFORMATION

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- Team of recognized industry experts and thought leaders.

**Database Specialists helps you
increase uptime, improve performance,
minimize risk, and reduce costs**

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- Database Specialists, Inc. provides Oracle database consulting in Solaris, Linux, HP-UX, AIX, and Windows environments.
- Our DBA Pro offering and Database Rx™ tools provide remote database support and 24/7 coverage at an attractive price point.
- We specialize in short term projects including upgrades, performance tuning and health checks.
- Our Oracle DBAs each have a minimum of 10 years of Oracle experience with a focus on Oracle technology, mission-critical production support and RAC environments.
- Database Specialists is US-based.

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