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Top Tips for LoZ customers

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Agenda

- My Oracle Support Communities
- Migration Strategies – to Linux on Z
- Oracle on Linux on Z installation gotchas
- Diagnostic and performance tools



My Oracle Support Communities

- Migration from the older Forum format
- Actively managed and moderated
- Encourages user posts
- Spotlight and highlight posts
- Specific community for zSeries customers
- Accessed via My Oracle Support (Metalink)

Here we are !!

The screenshot shows the My Oracle Support Dashboard in a Microsoft Internet Explorer browser window. The address bar displays the URL <https://metalink.oracle.com/CSP/ui/flash.html#>. The page header includes the Oracle logo, the text "MY ORACLE SUPPORT", and a status indicator "PowerView is OFF" which is highlighted by a red arrow. The header also contains navigation links: Dashboard, Knowledge, Service Requests, Patches & Updates, Community, Certify, Reports, and Collector. A welcome message "Welcome, Damian" and links for Settings, Feedback, Sign Out, and Help are also present.

The main content area is divided into several sections:

- System Health:** A section titled "Get the most out of My Oracle Support" with a sub-header "Help prevent potential outages and security issues before they impact your operations". It includes a "Watch a video tutorial" link and a "Learn More" button. Below this, there are statistics for "923 Total Issues": Critical 475, Warning 193, and Informational 257. A "SAMPLE" button is visible.
- Service Requests:** A section titled "The Service Requests region lets you view Oracle assessments of your systems and get recommendations for Critical Patch Updates." It includes a "Learn more about System Health" link and a "SAMPLE" button.
- Getting Started:** A section titled "The Systems region helps users to organize and monitor their systems. Was it working before and now it's not? Pinpoint the problem by comparing systems with history." It includes a "Learn more about Systems" link and a "SAMPLE" button.
- Targets:** A section titled "In the Targets region, you can view hosts or other targets. See critical issues, check what patches are installed, or get details on a target." It includes a "Learn more about Targets" link and a "SAMPLE" button.
- News:** A section titled "Knowledge Articles" with a "Local Intranet" link.

The bottom of the browser window shows the Windows taskbar with various application icons and the system clock displaying 18:20.

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My Oracle Support | Community - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Print Mail New Tab

Address [https://metalink.oracle.com/CSP/ui/flash.html#tab=Community\(page=Community&id=fsofjHu\(\)\)](https://metalink.oracle.com/CSP/ui/flash.html#tab=Community(page=Community&id=fsofjHu())) Go Links

ORACLE MY ORACLE SUPPORT Welcome, Danian | Settings | Feedback | Sign Out | Help

Dashboard Knowledge Service Requests Patches & Updates Community Certify Reports Collector

Community Last refreshed 5 minutes ago


Welcome to Your Oracle Support Community (Limited Release)

Collaborate with a large network of your industry peers, support professionals, and Oracle experts to exchange information, ask questions & get answers. Find out how your peers are using Oracle technologies and services to better meet their support and business needs.

- Exchange Knowledge
- Resolve Issues
- Gain Expertise

Tell us what you think. Become part of the team that drives the evolution of this service to best meet the needs of the entire My Oracle Support Community.

Enter Here



Yep

Thread	Answer By	Answers	Views
User Community Weekly Meeting	R.H. Mockup 08:58 AM July 12, 2008	The July newsletter is now online. Visit the groupies section to see the latest comments and help files.	14
RE: Major mixup	wanna_bee 08:51 AM July 12, 2008	Here's what I found to fix the problem. If you have the xbs. major. 2 patch installed, you'll want to test it before you remove the...	6
Anyone have this problem?	Major_Tom 11:43 PM July 11, 2008	I'm having trouble finding the right patch for the following system. Any help would be appreciated. Platform: Apple Mac OS X	2
Platform Naming	nobody there nobody top	I don't see the reason to change how we've been doing this. The proposed names might make...	42

[Return to Classic MetaLink](#) Copyright (c) 2008, Oracle. All rights reserved. Legal Notices and Terms of Use | Privacy Statement | 3rd Party Licenses

Done Local intranet

start 9 M 3 P 3 F IT... Cl... Or... £270 3 W b2... 2 W +1. N... MSVDM 18:26



zSeries

Getting Started

My Oracle Support Community - IBM zSeries Platform - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

Address https://communities.oracle.com/portal/server.pt/community/ibm_zseries_platform/273 Go Links

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Welcome, **Damian - Moderator** | Close

Home Discussions Documents Private Messages People Finder Tags Classic Forums Profile

Actions:

- Start new discussion
- Create new document

My Communities

Quick find

- Oracle Database
- Oracle Weblogic Server
- My Oracle Support
- Using My Oracle Support
- Community Suggestions
- Diagnosability
- Oracle Database
 - Database Administration
 - Database Tuning
 - Database Backup and Recovery
 - Database Networking
 - Scalability RAC
- IBM zSeries Platform
- Oracle Lite
- Oracle on OpenVMS
- Red Products on OpenVMS

Top Participants

- Pro (530 points)
- Marianne - Moderator
- Journeyman (392 points)
- nahed-moderator
- Journeyman (382 points)
- MarkDPowell
- Journeyman (349 points)
- Innan - Moderator
- Journeyman (331 points)
- Henrik - Moderator
- Journeyman (301 points)
- Elhoussini - Moderator
- Journeyman (255 points)
- Helmut

Featured Discussions

Topics: 2 Displaying: 2

Subject	Author
Welcome to your IBM zSeries community!	by Damian - Moderator
zSeries Oracle Special Interest Group Conference 2009	by Damian - Moderator

Posted on **March 19, 2009 2:51 PM**, Last updated on **March 19, 2009 2:51 PM** by Damian - Moderator , 0 Replies, 10 Views

Posted on **March 19, 2009 2:54 PM**, Last updated on **March 19, 2009 2:54 PM** by Damian - Moderator , 0 Replies, 9 Views

Recent Community Content

Subject	Updated By
Re: Product Certification on z/OS	Phil - Moderator
Posted on March 20, 2009 5:07 PM by Phil - Moderator , Last updated on March 20, 2009 5:07 PM	
How do I find the latest patches for z/OS?	Phil - Moderator
Posted on March 20, 2009 12:33 AM by Phil - Moderator , Last updated on March 20, 2009 12:33 AM , 0 Replies, 14 Views	
z/OS Support Status	Phil - Moderator
Posted on March 19, 2009 11:02 PM by Phil - Moderator , Last updated on March 19, 2009 11:02 PM , 0 Replies, 21 Views	
OSDI - Where can I find the latest release of OSDI?	Phil - Moderator
Posted on March 19, 2009 9:34 PM by Phil - Moderator , Last updated on March 19, 2009 9:34 PM , 0 Replies, 24 Views	
Re: Product Certification on z/OS	Damian - Moderator
Posted on March 19, 2009 2:58 PM by Damian - Moderator , Last updated on March 19, 2009 2:58 PM	
Product Certification on z/OS	Phil - Moderator
Posted on March 19, 2009 2:58 PM by Damian - Moderator , Last updated on March 20, 2009 5:07 PM , 2 Replies, 16 Views	
Re: Link fails during Oracle 10.2.0.3 installation on zLinux	Damian - Moderator
Posted on March 19, 2009 2:56 PM by Damian - Moderator , Last updated on March 19, 2009 2:56 PM	
Link fails during Oracle 10.2.0.3 installation on zLinux	Damian - Moderator
Posted on March 19, 2009 2:56 PM by Damian - Moderator , Last updated on March 19, 2009 2:56 PM , 1 Replies, 5 Views	
Re: I can't find ASMLIB for RHEL5 ?	Damian - Moderator
Posted on March 19, 2009 2:55 PM by Damian - Moderator , Last updated on March 19, 2009 2:55 PM	
I can't find ASMLIB for RHEL5 ?	Damian - Moderator
Posted on March 19, 2009 2:55 PM by Damian - Moderator , Last updated on March 19, 2009 2:55 PM , 1 Replies, 11 Views	

[All Community Discussions](#)

[All Community Documents](#)

Popular Discussions

- OSDI - Where can I find the latest...
- z/OS Support Status
- Product Certification on z/OS
- How do I find the latest patch...
- I can't find ASMLIB for RHEL5 ?

Popular Documents

https://communities.oracle.com/portal/server.pt/user/phil_moderator/5265

Local intranet

start 9 M 3 P 3 F IT... Or... E270 3 W b2... 2 W S I... M... MSXDM 1 2 3 4 V8 18:31



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-  My Oracle Support Communities
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Migration Strategies – to Linux on Z

- Pre 10g – Export / Import or dblink based
- Post 10g - Datapump or Transportable Tablespace
- Also possible to consider streams based

Transportable Tablespace

```
SQL> select * from v$transportable_platform;
```

PLATFORM_ID	PLATFORM_NAME	ENDIAN_FORMAT
1	Solaris[tm] OE (32-bit)	Big
2	Solaris[tm] OE (64-bit)	Big
7	Microsoft Windows NT	Little
10	Linux IA (32-bit)	Little
6	AIX-Based Systems (64-bit)	Big
3	HP-UX (64-bit)	Big
5	HP Tru64 UNIX	Little
4	HP-UX IA (64-bit)	Big
11	Linux IA (64-bit)	Little
15	HP Open VMS	Little
8	Microsoft Windows IA (64-bit)	Little
9	IBM zSeries Based Linux	Big
13	Linux 64-bit for AMD	Little
16	Apple Mac OS	Big
12	Microsoft Windows 64-bitAMD	Little



TT is an RMAN function

- If Endian the same, no conversion required
- If Endian different then:
- RMAN> convert **tablespace** 'REPOSIT'
2> to platform=" **IBM zSeries Based Linux**"
3>db_file_name_convert=' /database/db101b2/V101B
2/datafile/reposit01.dbf',
4> ' /tmp/reposit01.dbf' ;



Full list of steps

- Set the **tablespace** to READ ONLY
- Export metadata
- Check the **endianness** of the target database
- **Convert if necessary**
- Move datafiles and export dump file
- Import metadata
- Set the **tablespace** to READ WRITE
- Note 243304.1 10g : Transportable Tablespaces Across Different Platforms



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Oracle on Linux on Z installation gotchas

- Prior to 10.2.0.4, we unfortunately included the wrong stubs in the Oracle distribution materials, which causes the linkedit of the Oracle executable to fail - either with a pop up during the OUI GUI install, or silently , which is only reported in the installation log file.
- 10.2.0.4 includes the correct stubs, and since we recommend 10.2.0.4 should be used wherever possible, the simplest solution is to perform a software only install of 10.2.0.2, ignoring the link failure, and then installing 10.2.0.4 immediately, which will then have a clean installation and link.



There are a series of articles on Metalink addressing this topic:

- **Information specific to SLES10:-**
- [Note 556906.1](#) Requirements for Installing Oracle 10gR2 RDBMS on SLES 10 zLinux (s390x)
- [Note 778319.1](#) Linking Errors on IBM zLinux (s390x) during 10.2.0.2 Installation - RHEL 5 or SLES 10
- **Information specific to RHEL5:-**
- [Note 741646.1](#) Requirements for Installing Oracle 10gR2 RDBMS on RHEL 5 on zLinux (s390x)
- [Note 778319.1](#) Linking Errors on IBM zLinux (s390x) during 10.2.0.2 Installation - RHEL 5 or SLES 10
- [Note 779013.1](#) How to precompile sample demo programs on RHEL 5 on zLinux (s390x)
- **Information specific to SLES9:**
- [Note 431443.1](#) Requirements for Installing Oracle 10gR2 RDBMS on SLES 9 zLinux (s390x)
- **Information specific to RHEL4:-**
- [Note 420382.1](#) Requirements for Installing Oracle 10gR2 RDBMS on RHEL 4 on zLinux (s390x)



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Diagnostic and performance tools

- Oracle Configuration Manager
- Remote Diagnostic Agent
- LTOM
- OSWatcher



Oracle Configuration Manager

- Installed with CPU by default
- Configuration Support Manager utilizes core configuration management capabilities available from Oracle Enterprise Manager and provides:
- The ability to define configurations and organize projects
- A central view of Configuration details and changes
- Improved Service Request tracking and submission
- Proactive problem avoidance with Health Checks
- Proactive Product and Security Alerts



Benefits

- Benefits for customers, based on experience so far are:
- 30% Reduction Service Request Log Time
20% Faster Response Time to Service Requests
- 40% Faster Issue Resolution
25% Problem Avoidance with Alerts and Health Checks



Remote Diagnostic Agent

- A one off snapshot of system and Oracle
- Oracle Installation information
- Performance loadings
- Configuration files
- OS Kernel settings
- System load information – CPU, memory and IO
- Everything an engineer needs to understand a system
- Always load one when opening a SR



The Lite Onboard Monitor (LTOM)

- A java program designed as a real-time diagnostic platform for deployment to a customer site.
- differs from other support tools, as it is proactive rather than reactive.
- provides real-time automatic problem detection and data collection.
- runs on the customer's UNIX server, is tightly integrated with the host operating system and provides an integrated solution for detecting and collecting trace files for system performance issues.
- The ability to detect problems and collect data in real-time will reduce the amount of time it takes to solve problems and reduce customer downtime.



Major features

- Automatic Hang Detection
- System Profiler
- Automatic Session Tracing



Automatic Hang Detection

- The advantage of using automatic hang detection, is that if the database hangs at 2:00 in the morning and no one is around, the necessary diagnostic traces will be collected and a hang report will be generated.
- Email notification can be configured that will alert the user to the hang.
- To prevent traces from constantly being generated once a hang is detected, only one set of diagnostic traces are collected and no further hangs will be detected until the mode has been turned off and re-enabled.
- LTOM can also automatically determine the level of tracing based on the level of impact to the system of collecting additional diagnostic traces.



Default collection

- Once any session has been identified as hung, diagnostic traces are automatically generated. The type of hang diagnostic and number of diagnostic traces collected is determined by what has been defined in the rules file
- HangAnalyze Level 3
- Systemstate Level 266
- Wait 60 seconds
- HangAnalyze Level 3
- Systemstate Level 266



The System Profiler

- Provides the ability to continually collect data from both the operating system and oracle and provides an integrated snapshot of the overall health of the operating system together with the database.
- This data collection contains the output from operating system utilities (top, vmstat and iostat) along with Oracle session data (v\$session, v\$process, v\$session_wait, v\$system_event and v\$system_statistics).
- The recording frequency and subsets of available data can also be configured when running the tool.



Automatic Session Tracing

- Uses a set of rules to determine when to turn on SQL trace for individual oracle sessions, using event 10046 level 12 trace.
- Rules can be defined for database wait events, CPU and specific users.
- For rules based on wait events, the automatic session recorder monitors certain V\$ views at specified intervals and computes the average wait time between intervals for each event. This computed average wait time is compared to the rule definition for that event, if any. If a rule has been defined for that event and if the average wait time exceeds the rule threshold for that event then LTOM turns on tracing for that session.
- For rules based on CPU, the automatic session recorder computes the amount of CPU used by the session between intervals and compares it to the rule.
- For rules based on specific users, the automatic session recorder traces any session owned by that user.



OSWatcher

- A series of shell scripts that collect specific kinds of data, using Unix operating system diagnostic utilities. Control is passed to individually spawned operating system data collector processes, which in turn collect specific data, timestamp the data output, and append the data to pre-generated and named files. OSW invokes the distinct operating system utilities listed below as data collectors. These utilities will be supported, or their equivalents, as available for each supported target platform.
- ps
- top
- mpstat
- iostat
- netstat
- traceroute
- vmstat



Reports

- Both OSWatcher and LTOM are designed to have their data processed by a graphical postprocessor – supplied, which provides a graphical view over time.
- This makes it simple to see what was going on before a critical event – this is usually what gets missed – its not the event that matters, usually, but the profile leading up to it – ‘the knee’.



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