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Red Hat 5 and Banner 8

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Red Hat 5

- **Currently in update 4**
- **Based on the Linux 2.6.18 kernel**
- **Optimized for multi-core processors**
- **Continued hardware support for maximum flexibility**
- **Development and performance tools, including SystemTap**
- **Advanced I/O performance and virtualization technologies, such as SR-IOV (Single Root I/O Virtualization)**
- **Large SMP support for both physical and virtual systems**
- **IPv4/IPv6 fragmentation offload and buffer management**
- **Dynamically switchable per-queue I/O schedulers**
- **Kernel buffer splice capability for improved I/O buffer operations**



Comparison of Server verses Advance Server

- **Red Hat Enterprise Linux server**
 - Server capacity in Sockets – Up to 2
 - Virtual guests supported – Up to 4
 - Includes storage virtualization and high availability capabilities (Red Hat Global File System & Cluster Suite) - NO
- **Red Hat Enterprise Linux Advanced Platform Server**
 - Server capacity in Sockets – Unlimited
 - Virtual guests supported – Unlimited
 - Includes storage virtualization and high availability capabilities (Red Hat Global File System & Cluster Suite) - yes



Comparison of Server verses Advance Server (continued)

- **Red Hat Enterprise Linux server**
 - Basic ~ \$349
 - Standard ~ \$799
 - Premium ~ \$1,299
- **Red Hat Enterprise Linux Advanced Platform Server**
 - Standard ~ \$1,499
 - Premium ~ \$2,499



Use/Purpose of Linux Server

- **Red Hat Enterprise Linux server**
 - Departmental and network applications, file/print serving, small web servers, etc.
 - Classic Red Hat Enterprise Linux functionality with limited virtualization and scalability. Equivalent to earlier ES products. Suitable for small/medium, fixed-function server environments.



Use/Purpose of Enterprise Linux Server

- **Red Hat Enterprise Linux Advanced Platform Server**
 - Databases, ERP, CRM, SOA environments, large web servers, etc.
 - Grid deployments; blade/rack server consolidation and high availability
 - Corporate/enterprise applications
 - Seamless upgrade from previous AS releases. Excellent scalability. Enables optimal resource utilization in environments with multiple servers. Ideal for dynamic and growing server configurations, offering maximum operational control and flexibility. Use in environments where continuous operation, plentiful resources, and the highest levels of flexibility are required.



Why Red Hat Linux?

- **Red Hat Enterprise Linux server**
 - X86 architecture allowing for:
 - Use of commodity based hardware
 - Use of various commercial or open source virtualization
 - Scalable both horizontally and vertically
 - Multiple Support options:
 - CentOS
 - Red Hat Network
 - Oracle Linux
 - Primary development environment by Oracle
 - New generation of System Administrations



How and what should be installed?

- Oracle has recently adjusted its Linux support policy since it has determined that numerous install and post-installation operational issues arise when its products are installed on a 'non-default' Linux 32-bit or 64-bit platform.
- For this reason Oracle has published details of what is encompassed in a 'default' install and how you can determine if your installation conforms to these guidelines. Oracle will support only installations that have a verified 'default' installation as indicated in Oracle Metalink Note 376183.1.
- **All packages included in the “Install Default Software Packages” option must be installed without modification.**
- Additional packages can be installed using the “Customize Software Packages to be Installed” option, but no default packages should be touched or 'customized'



Linux Update changes for RHEL 5.x

- **Red Hat Linux 5 source packages using yum (Yellowdog Updater Modified)**
 - Used to maintain RPM's (RPM Packages)

Type the following to install yum-utils:

```
# yum install yum-utils
```

Create a repository for Red Hat source files:

```
# vi /etc/yum.repos.d/rhel-src.repo
```

Insert the following:

```
[rhel-src]
```

```
name=Red Hat Enterprise Linux $releasever - $basearch - Source  
baseurl=ftp://ftp.redhat.com/pub/redhat/linux/enterprise/$releasever  
/en/os/SRPMS/  
enabled=1  
gpgcheck=1  
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-redhat-release
```

Save and close the file.



Versions of Oracle

- **Oracle Database**
 - 10.2.0.4
 - 11.1.0.7
- **Application Server**
 - INB and SSB
 - 10.1.2.3
 - SSB, Workflow, and Java Flex Applications
 - 10.1.3.4



ICU bundled with RHEL 5

- Starting with Red Hat 5 ICU 3.6 is bundled with the default installation.
- Binary is distributed but not source.
- Banner requires the source to be present
- To download for example, the libicu package required for Banner Pro*C on Red Hat Linux 5

- ```
cd /aux/rpms (or any other arbitrary directory with available space)
yumdownloader --source libicu
```

The file should now exist in /aux/rpms.  
Install the rpm  

```
cd /aux/rpms
rpm -i icu-3.6-5.11.2.src.rpm
```



# Oracle ProCOBOL

- **Even though the 10.2 Pro\*Cobol is now supported with Linux x86-64bit. The required files to build Pro\*Cobol executables are not added to the installation package.**
- **FAQ 1-5709KZ addresses the Oracle Linux 64-bit Pro\*COBOL procob32 missing issue**
- **Solutions to this problem.**
  - Copy the 10.2.0.4 executable from the Support Center download site to your \$ORACLE\_HOME/bin. The file on the Support Center is name Linux\_x86\_64\_RDBMS\_10.2.0.4\_procob32.zip.  
\*\*\*Note if you do not license Oracle from SunGardHE you will need to use option #2 or #3 below.
  - Manually make the procob executable using  
FAQ 1-4008Q6 Oracle Metalink Note 563569.1  
"Missing procob32 Executable On Linux X86-64".
  - Install procob32 from the 11g Client CD-Rom.  
FAQ 1-4008QA Oracle Metalink Note 728500.1  
"Unable To Find Procob and Procob32 exe in 10.2.0.4 Client Installation on Linux x86-64."



# Oracle ProCOBOL (continued)

- **Precompilers - Version: 10.2.0.1 to 10.2.0.4 Linux x86-64**
  - This note applies to only LINUX X86- 64 BIT platforms and 64 bit Oracle Client 10.2
- **After installing Oracle Client 10.2.0.1 and even after upgrading it to 10.2.0.4 you are unable to find the procob and procob32 executables.**
- **Even when tried to re-build these executables, you found that the libraries required to do so "libprocob2.a" cannot be found in "\$ORACLE\_HOME/procob/lib"**



# Banner Compile issue

- **Banner 8 ICU Pro\*C gencmplc.shl Makefile\_tm ustrfmt.h**
- **No such file error on Red Hat Linux 5 64-bit**
- **FAQ 1-817JEN Banner 8 ICU Pro\*C gencmplc.shl**

- 

You are executing gencmplc.shl and encounter the error

```
msgfmttm.cpp:39:21: error: ustrfmt.h: No such file or directory
msgfmttm.cpp:40:18: error: util.h: No such file or directory
msgfmttm.cpp: In function 'int32_t stou(const
icu_3_6::UnicodeString&)':
msgfmttm.cpp:67: error: 'uprv_isRuleWhiteSpace_3_6' was not
declared in this scope
```

You have applied patch 1-40WK37 as described in  
FAQ 1-5EOZZS Banner 8 Pro\*C ICU (International Components  
for Unicode) Installation and Configuration for Red Hat Linux 5



# Banner Compile issue (continued)

- **FAQ 1-817JEN Banner 8 ICU Pro\*C gencmplc.shl**
  - For Red Hat Linux 5 64-bit, use the Makefile\_tm and the sctproc\_linux64\_redhat5\_ban8.mk in
- **FAQ CMS-1361 Banner Example Makefiles**
  -



# SunGard Higher Education Internal Use of Red Hat

- **Summit 2009 primarily Red Hat 5.3 on Dell Servers**
- **Various project development done on Linux VMs in VMWare ESX.**
- **December UDC System Test conducted primarily on Red Hat 5.4**





# Questions?



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