

# DOCUMENTATION

## **BDNA Discover 7.7.2**

### **Release Notes**

November 9, 2016

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## What's New in BDNA Discover 7.7.2

- Major upgrades support both Oracle 11g and Oracle 12c.
- Upgrades also support RHEL 6.5 and RHEL 6.8.
- Security fixes, including: Directory Traversal, Header Injection, Stack Trace, and Cross-site Scripting.
- Collection store upgrade.
- Factbase upgrade.
- Added a new session timeout feature for the Application UI that provides a session timeout warning if the user has been inactive.

## Requirements for BDNA Discover 7.7.2

### Minimum Hardware Requirements

#### Windows Collection Server

- Fast processor
- RAM: 8GB
- Storage: 250GB

#### Linux Component Server

- Fast, dual processors
- RAM: 8GB
- Storage: 500GB

#### Database Server

- Fast, dual processors
- RAM: 8GB
- Storage: 500GB

### Minimum Software Requirements

#### Windows Collection Server

- Windows Server 2008 R2 64-bit or Windows Server 2012 R2 64-bit

#### Linux Component Server

- Red Hat Enterprise Linux (RHEL) 6.5 or 6.8 (64-bit)

#### Database Server

- Oracle 11g R2 (64-bit) Standard or Enterprise Edition
  - ...**or** Oracle 12c (64-bit) 12.1.0.2.0 Enterprise Edition

## Discover Client Browser Support

- Internet Explorer 11 or higher
- Firefox 31 or higher
- Google Chrome 36 or higher

## Minimum RPM Packages Requirements

The following RPM packages are required prerequisites for the installation of the Oracle Database Server, MBUS, and Component Servers.

All packages can be found on the RHEL DVD, unless otherwise specified.

### RHEL 6.8 RPM Packages

- apr-1.3.9-5.el6\_2.x86\_64.rpm
- apr-util-1.3.9-3.el6\_0.1.x86\_64.rpm
- apr-util-ldap-1.3.9-3.el6\_0.1.x86\_64.rpm
- aspell-0.60.6-12.el6.x86\_64.rpm
- aspell-en-6.0-11.el6.x86\_64.rpm (located at [http://rpm.pbone.net/index.php3/stat/4/idpl/15284672/dir/redhat\\_el\\_6/com/aspell-en-6.0-11.el6.x86\\_64.rpm.html](http://rpm.pbone.net/index.php3/stat/4/idpl/15284672/dir/redhat_el_6/com/aspell-en-6.0-11.el6.x86_64.rpm.html))
- compat-libstdc++-33-3.2.3-69.el6.x86\_64.rpm
- httpd-tools-2.2.15-53.el6.x86\_64.rpm
- httpd-2.2.15-53.el6.x86\_64.rpm
- lm\_sensors-libs-3.1.1-17.el6.x86\_64.rpm
- lm\_sensors-3.1.1-17.el6.x86\_64.rpm
- mod\_ssl-2.2.15-53.el6.x86\_64.rpm
- openssh-askpass-5.3p1-117.el6.x86\_64.rpm
- rsh-0.17-64.el6.x86\_64.rpm
- tcl-8.5.7-6.el6.x86\_64.rpm
- telnet-0.17-48.el6.x86\_64.rpm
- expect-5.44.1.15-5.el6\_4.x86\_64.rpm
- net-snmp-libs-5.5-57.el6.x86\_64.rpm
- net-snmp-utils-5.5-57.el6.x86\_64.rpm
- net-snmp-5.5-57.el6.x86\_64.rpm
- sysstat-9.0.4-22.el6.x86\_64
- glibc-devel-2.12-1.192.el6.x86\_64.rpm
- libaio-0.3.107-10.el6.x86\_64.rpm
- kernel-2.6.32-642.el6.x86\_64.rpm

- openssh-clients-5.3p1-117.el6.x86\_64.rpm
- openssh-server-5.3p1-117.el6.x86\_64.rpm
- openssh-5.3p1-117.el6.x86\_64.rpm
- sysstat-9.0.4-31.el6.x86\_64.rpm

### **PERL RPM Packages**

- perl-libs-5.10.1-141.el6\_7.1.x86\_64.rpm
- perl-5.10.1-141.el6\_7.1.x86\_64.rpm
- perl-URI-1.40-2.el6.noarch.rpm
- perl-XML-Parser-2.36-7.el6.x86\_64.rpm
- perl-HTML-Tagset-3.20-4.el6.noarch.rpm
- perl-HTML-Parser-3.64-2.el6.x86\_64.rpm
- perl-Compress-Raw-Zlib-2.021-141.el6\_7.1.x86\_64.rpm
- perl-IO-Compress-Zlib-2.021-141.el6\_7.1.x86\_64.rpm
- perl-XML-RegExp-0.03-7.el6.noarch.rpm
- perl-YAML-Syck-1.07-4.el6.x86\_64.rpm
- perl-XML-DOM-1.44-7.el6.noarch.rpm
- perl-Date-Manip-6.24-1.el6.noarch.rpm

### **RPM Packages for Nmap 4.11**

- gamin-0.1.10-9.el6.i686.rpm
- glib2-2.28.8-5.el6.i686.rpm
- glibc-2.12-1.192.el6.i686.rpm
- libgcc-4.4.7-17.el6.i686.rpm
- libseline-2.0.94-7.el6.i686.rpm
- libstdc++-4.4.7-17.el6.i686.rpm
- nss-softokn-freebl-3.14.3-23.el6\_7.i686.rpm
- zlib-1.2.3-29.el6.i686.rpm

To install the above RPM packages, run the following commands:

```
$ rpm -Uvh glib2-2.28.8-5.el6.i686.rpm glibc-2.12-1.192.el6.i686.rpm gamin-0.1.10-9.el6.i686.rpm  
libseline-2.0.94-7.el6.i686.rpm nss-softokn-freebl-3.14.3-23.el6_7.i686.rpm zlib-1.2.3-29.el6.i686.rpm
```

Run the following commands to install the remaining RPM packages.

```
$ rpm -ivh libgcc-4.4.7-17.el6.i686.rpm
```

```
$ rpm -ivh libstdc++-4.4.7-17.el6.i686.rpm
```

---

**Note:** One RPM package has a potentially low impact vulnerability. The affected RPM package is “nss-softokn-freebl-3.14.3-23.el6\_7.i686.rpm.” See the full report at <https://access.redhat.com/security/cve/cve-2016-1938>.

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## Upgrading BDNA Discover to 7.7.2

The information that follows provides the required steps for upgrading to BDNA Discover 7.7.2 with the latest Enterprise Sequence.

### Upgrading Collection Store

BDNA does not support upgrading from previous versions to 7.7.2 on Collection Store installations. BDNA always recommends a fresh installation and newly created schema. For more information, refer to the *BDNA Discover Installation Guide*.

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**Note:** In all cases you must run the BDNA 7.7.2 installer with the latest Enterprise Sequence.

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## Upgrading Factbase

Before running the upgrade, make sure your current instance of Factbase is upgraded to the latest Enterprise Sequence.

Since Red Hat Enterprise Linux (RHEL) cannot be upgraded (a fresh install of the OS is required), you will need to follow the usual steps for installing the OS and prerequisite packages, as well as configuring the Oracle Client as provided in the *BDNA Discover Installation Guide*.

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**Note:** If you plan to use the same server and re-install the OS (i.e., RHEL 6.8), we recommend backing up the entire \$BDNA\_HOME/conf directory.

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### To upgrade Factbase:

1. Back up your Factbase schema, before proceeding further.
2. Stop the BDNA instance of the Factbase 7.7.0 or 7.7.1 schema, using the following commands:
 

```
$ sh bdna.sh
bdna> shutdown
bdna> halt
bdna> exit
```
3. Install, configure, and verify the OS and Oracle Client, using the instructions provided in the *BDNA Discover Installation Guide* to ensure proper installation and configuration.
4. Run the BDNA Discover 7.7.2 Installer, using the following command:
 

```
sh bdna_7.7.2_xxxx_2016xxxx.installer
```

 where the first set of xxxx is the build number and the second set of xxxx is the month and day.
5. Log off the BDNA Linux system.
6. Log back into the BDNA Linux system.
7. Run the configuration script, using the following command:
 

```
sh BDNA_HOME/bin/configure.sh
```
8. Use the information in [Table 1](#) to respond to the system prompts about configuration settings.

**Table 1: Configuration settings**

Prompt	Response
Do you want to load the Enterprise Sequence file (y/n)?	'n' Your response <b>must</b> be 'n'. Ignore the system reminder about installing the Enterprise Sequence.
Will this server be running Collection Store (y/n)?	'n' Your response <b>must</b> be 'n'.
Enter the Factbase schema name:	Enter the existing 7.7.0 or 7.7.1 Factbase schema name.



**Table 1: Configuration settings (Continued)**

Enter the password for the Oracle user who will own the Factbase schema:	You <b>must</b> enter the password of the existing Factbase schema. The password should match whatever password you used in your previous 7.7.0 or 7.7.1 FactBase installation.
Enter the IP address or hostname for the Factbase database server instance:	Enter the IP address or hostname of the Oracle database server where the Factbase schema resides.
Enter the TNS Listener port for the Oracle instance:	This is the TNS Listener port for the Factbase database server instance. Usually, it is 1521.
Does your listener use a SID (enter N if it is a SERVICE_NAME)?	The answer to this question should match whatever you used in your previous 7.7.0 or 7.7.1 Factbase installation.
Enter the Oracle SID of the Factbase database server:	This is the Oracle SID of the Factbase database server. Usually, it is ora11g or ora12c, depending on your installed version of Oracle.
Would you like Setup to create a TNS entry in tnsnames.ora (y/n)?	'y'
Enter the TNS name to connect to the Oracle instance []:	Enter TNS name.
Do you want to drop the schema '<schema name>' if it exists (y/n)?	'n' You <b>must</b> answer 'n' to this question.
Enter the encryption seed string for the BDNA schema:	You <b>must</b> enter the encryption seed string that you used for the BDNA Factbase schema from your previous BDNA installation. If you are using a different encryption seed string, then you won't be able to log in to the BDNA Discover UI.
Enter the message bus port of the Factbase instance: [8004]	Accept the default message bus port: 8004.
Enter the RS port of the Factbase instance: [8081]	Accept the default RS port: 8081.
Create schema '<schema name>' (y/n)?	'n' You <b>must</b> answer 'n' to this question.
Initialize schema '<schema name>' (y/n)?	'n' You <b>must</b> answer 'n' to this question.

9. Upgrade the BDNA Repository to the 7.7.2 Platform, using the following command.

```
sh $BDNA_HOME/upgrade/upgrade.sh
```

To view the log for this upgrade script, go to:

```
$BDNA_Home/logs/upgrade.log
```

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**Note:** The system prompts you for the BDNA Discover Administrator username and password. This is the username and password used to log in to the BDNA Discover Client. By default, the BDNA Discover Administrator username is 'root'.

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10. Upgrade to the latest Enterprise Sequence.

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**Note:** Load times for applying the Sequence vary, but this process involves both loading the Sequence and refreshing the Analytics reports. As such, this process may take several hours based on the size of the schema being upgraded. The upgrade is not complete without applying the Enterprise Sequence.

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10.1. Copy the latest Content release file (for example: `bdna_772_2016_xxxxr_Sequence.zip`) onto `$BDNA_HOME`

10.2. Issue the following command to unzip the file:

```
unzip -o bdna_772_2016_xxxxr_Sequence.zip
```

This will unpack the latest Content with upgrade script into `$BDNA_HOME/sequences` directory.

10.3. Change to the sequences directory:

```
cd to $BDNA_HOME/sequences
```

10.4. Run the following script:

```
sh upgrade_sequence.sh -f
$BDNA_HOME/sequences/EnterpriseSequence_2016_xxxx.seq
```

10.5. Access the BDNA Discover Client:

```
http://<server name>
```

The upgrade is complete. You can now log into FactBase or the BDNA Discover Client to review reports.

## Change Fixes

**Table 2: Discover 7.7.2 Change Fixes**

ID	Description
12051 & 12049	All components function correctly during startup, without the need for any manual configurations.
11970	Configure.sh functions properly with SSH key roll out on RHEL6.8/Oracle12c distributed setup.
417, 418, 419, 421, 422, 442, 11693, 11836, 11698, 11696, 11700 & 11701	Results from RHEL 6.5/Oracle 11gR2 and RHEL 6.8/Oracle 12c perform consistently and are supported as intended.

**Table 2: Discover 7.7.2 Change Fixes**

ID	Description
9487	Duplicate asset issues for Factbase have been resolved.
416 & 11697	Analytics function properly and do not generate any errors or unnecessary warnings.
11695	Configure.sh updates TNSnames.ora correctly as intended.
432	The HTTP trace method has been disabled in order to provide better security.
431	Users now have the option of adjusting the session timeouts to whatever length of time they prefer.
420 & 337	All scripts, start agents, and SQL clients run properly now when running Discover with Oracle 12c.
405	The private key in plain text within Discovery now shows up in the appropriate directory.
400 & 401	Security Audit Web service updated for Discovery.
264	Modified private and public keys from the user interface now successfully pickup collection store scans.

## Known Limitations

1. FactBase 7.7.2 only supports importing collections that were generated with 7.6.1. or later.