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## ZENwork Reporting 8.1.x ZENworks Reporting Appliance Deployment and Administration Reference

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## Contents

	About This Guide	5
1	Overview	7
2	System Requirements	9
3	Appliance Deployment	13
	<ul><li>3.1 Deploying the Appliance</li><li>3.2 Configuring the Appliance Settings</li></ul>	13 14
4	ZENworks Reporting Configuration	17
	<ul> <li>4.1 Configuring ZENworks Reporting Appliance</li></ul>	
5	ZENworks Reporting Migration	35
	<ul> <li>5.1 Prerequisites for ZENworks Reporting Migration from 7.8.x to 8.1.x</li> <li>5.2 Backing up the ZENworks Reporting 7.2 or 7.8.x Data</li> <li>5.3 Migrating to the ZENworks Reporting 8.1.x Appliance</li> <li>5.3.1 Pre-Migration Tasks</li> <li>5.3.2 Migration</li> <li>5.3.3 Post Migration Tasks</li> </ul>	
6	ZENworks Reporting System Management	41
	<ul> <li>6.1 ZENworks Reporting Configuration</li></ul>	
7	Appliance Management	51
	7.1         Network           7.2         Time	51

7.3	Storage		52
7.4	System	Services	52
	7.4.1	Starting, Stopping, or Restarting System Services	53
	7.4.2	Setting System Services to Automatic or Manual	53
7.5	Firewall		53
7.6	Adminis	trative Passwords	53
7.7	Field Pa	tch	54
7.8	Online I	Jpdate	54
7.9	Shuttin	g Down and Restarting ZENworks Reporting Appliance	55

#### A Troubleshooting

## **About This Guide**

This ZENworks Reporting Virtual Appliance Deployment and Administration Reference helps you to deploy and configure ZENworks Reporting Appliance to the ZENworks Reporting supported virtual infrastructure.

The information in this guide is organized as follows:

- Chapter 1, "Overview," on page 7
- Chapter 2, "System Requirements," on page 9
- Chapter 3, "Appliance Deployment," on page 13
- Chapter 4, "ZENworks Reporting Configuration," on page 17
- Chapter 5, "ZENworks Reporting Migration," on page 35
- Chapter 6, "ZENworks Reporting System Management," on page 41
- Chapter 7, "Appliance Management," on page 51
- Appendix A, "Troubleshooting," on page 57

#### Audience

This guide is intended for ZENworks Reporting administrators.

#### Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation.

#### **Additional Documentation**

ZENworks Reporting is supported by other documentation (in both PDF and HTML formats) that you can use to learn about and implement the product. For additional documentation, see the ZENworks documentation site.

# **1** Overview

ZENworks Reporting is available as a virtual appliance that can be deployed to a supported virtual infrastructure. ZENworks Reporting Appliance is built on a customized SUSE Linux Enterprise Server (SLES), and comes pre-installed with ZENworks Reporting and thus helps save on operating system license costs.

To effectively manage your configurations, you need deep visibility into your IT environment. The ZENworks Reporting provides that visibility with extensive reporting capabilities.

- Build a powerful reporting dashboard by integrating reports, charts, graphs, and more using an easy drag-and-drop dashboard designer
- Design a report and share it effortlessly with a full set of security
- Build reports on the fly using ad-hoc reporting and easy-to-understand business objects

Using the ZENworks Reporting Server you can publish reports in PDF, XLS, XLSX, HTML, DOC, and more. Choose from standard reports in the ZENworks Reporting library or create your own custom reports. You can also schedule reports and automate distribution.

ZENworks Reporting Appliance is a 64-bit (x86\_64) virtual machine. The following sections provide the requirements for deploying ZENworks Reporting Appliance onto a virtual infrastructure:

ZENworks Reporting 8.1.x Appliance is compatible with the following ZENworks versions:

- ZENworks 2020 Update 2
- ZENworks 2020 Update 3
- ZENworks 23.3
- ZENworks 23.4

Cool solutions pertaining to the ZENworks Reporting Appliance domain published in the Cool Solutions may also be configured.

Item	Requirements		
Hypervisor	VMware Workstation 6.5		
	<ul> <li>VMware ESXi 6.x and 7.x</li> </ul>		
	<ul> <li>Microsoft Hyper-V Server Windows 2012, 2012 R2, 2016 and 2019</li> </ul>		
	<ul> <li>XEN on SLES 12 SP4, SP5 and SLES 15 SP1, SP2, SP3 and SP4</li> </ul>		
	<ul> <li>Citrix XEN 7.x and Citrix Hypervisor 8.x</li> </ul>		
Virtual Machine Configuration	Appliance requires the following minimum configuration that have been preconfigured by default:		
	• RAM: 8 GB minimum		
	Disk Space: 60 GB minimum		
	CPU Cores: 2		
	For optimum results we recommend at least a 2.5 GHz multi- core processor		
	ZENworks Reporting require two hard disks. One hard disk of size 60 GB is pre-configured with the Appliance that contains the operating system and the other hard disk of size minimum 16 GB should be added for the ZENworks data.		
	Depending on your requirement, you can increase the pre- configured disk space after deploying ZENworks Reporting Appliance.		

Item Requirements	
User Source	ZENworks Reporting can be configured to use Microsoft Active Directory or NetIQ e-Directory user source.
	User with LDAP credentials can log in to ZENworks Reporting. User management is not possible through the ZENworks Reporting server.
	Supported Authoritative User Sources
	<ul> <li>NetIQ eDirectory 9.2 v40201.14 or later</li> </ul>
	<ul> <li>Microsoft Active Directory (as shipped with Windows 2016 or later)</li> </ul>
	<ul> <li>LDAP user access: ZENworks Reporting requires user with minimum Read-only access to the LDAP directory</li> </ul>
	<ul> <li>LDAP Authentication: Simple bind authenticates the user, and allows user to access the application.</li> </ul>
	Simple bind is where an application provides a Distinguished Name (DN) and password for that DN. To use a simple bind, the client must supply the DN of an existing LDAP entry and a password that matches the user password attribute for that entry.
IP Address	The server must have a static IPv4 address or a permanently leased DHCP address.
Ports	The following ports are required for Primary Server communication:
	<ul> <li>Database ports of Microsoft SQL, Oracle, and Sybase</li> </ul>
	Reporting Server: 443
	• LDAP: 389 or 636
	SMTP: 25 for email
	NTP: 123 for time sync
	• SSH: 22
	<ul> <li>Appliance: 443</li> </ul>
	<ul> <li>Appliance administration console: 9443</li> </ul>
Database	The following are the supported databases:
	<ul> <li>Microsoft SQL Server, 2012 SP3 and later, 2014 SP2 and later, and 2016, 2016 SP1, 2017 and 2019.</li> </ul>
	<ul> <li>Oracle 12c (12.1.0.1 and 12.1.0.2), 12c RAC, 18c R1, 19c, and 20c.</li> </ul>
	<ul> <li>PostgreSQL 12.x as Embedded Database and PostgreSQL 11.x, 12.x, 13.x, 14.x as External Database</li> </ul>
	For more information, see <i>Database Requirements</i> in the System Requirements.

Item	Requirements		
Web Browser	The following are supported web browsers for the Appliance console:		
	<ul> <li>Firefox version 95 and higher</li> </ul>		
	• Firefox ESR 91.x		
	<ul> <li>Edge Chromium 95 and higher</li> </ul>		
	<ul> <li>Chrome version 95 and higher</li> </ul>		
Supported Languages	These are the supported languages for the Appliance console:		
	<ul> <li>English - en</li> </ul>		
	<ul> <li>French - fr</li> </ul>		
	• German - de		
	Italian - it		
	<ul> <li>Japanese - ja</li> </ul>		
	<ul> <li>Portuguese (Brazilian)</li> </ul>		
	<ul> <li>Simplified Chinese - zh_CN</li> </ul>		
	<ul> <li>Traditional Chinese - zh_TW</li> </ul>		
	<ul> <li>Spanish - es</li> </ul>		

- New Installation: If you are deploying the ZENworks Reporting Appliance for the first time, then see Deploying the Appliance.
- **Upgrade or Migrate:** If ZENworks Reporting Appliance is already installed, you need to upgrade or migrate to the latest version. For more information, see ZENworks Reporting Migration.

## 3.1 Deploying the Appliance

**NOTE:** If you are deploying ZENworks Reporting for the first time and configuring it to use with ZENworks 2020 Update 3, then after successfully deploying the appliance, ensure that you download and update the latest domain file provided with the appliance deployment file. For more information, see ZENworks Reporting Migration.

To deploy ZENworks Reporting Appliance, perform the following:

- 1 Ensure that the hyper-visor to which you want to deploy ZENworks Reporting Appliance meet the requirements listed in System Requirements.
- 2 Download the ZENworks Reporting Appliance file from the *Micro Focus Customer Center* website.

Based on your hypervisor, download any of the following files:

- VMware ESXi: Download the .ova file.
- Microsoft Hyper-V: Download the .vhd and .vhdx file.
- XenServer on SLES 12 / SLES 15: Download the xen.tar.gz file.
- Citrix Hypervisor (formerly XenServer): Download the xva.tar.gz file.
- **3** Deploy the ZENworks Reporting Appliance to a hypervisor by using the downloaded (.ova, .vhd, xva.tar.gz, or xen.tar.gz) file.

By default, the VMware tools are installed at the first boot of ZENworks Reporting Virtual Appliance.

4 (Optional) Take a snapshot of the virtual machine that you created.

To save the state and data of a virtual machine at a specific point in time.

**5** After deploying ZENworks Reporting Appliance, you must add a hard disk before you power on the Virtual Machine.

**IMPORTANT:** If you have not added a hard disk, then a warning message is displayed when you power on the machine. You need to power off the virtual machine, add a hard disk, and then power on the appliance.

**6** To configure the appliance, continue with the *Configuring the Appliance Settings*.

After deployment, ZENworks Reporting can be re-configured by using an easy to use web based console. Also, the same console can be used to maintain ZENworks Reporting Appliance and perform basic tasks such as executing commands, starting and stopping services, viewing logs, uploading, and downloading files. You can also tweak basic server settings and monitor the server performance.

## 3.2 Configuring the Appliance Settings

**IMPORTANT:** If you have not added a hard disk after deployment, then a warning message is displayed. In this scenario, you need to power off the virtual machine, add a hard disk, and then power on the appliance.

To configure the appliance settings, perform the following:

- **1** On the License Agreement page, select the required License Language and Keyboard Language, then click Accept.
- 2 On the Passwords and Time Zone page, specify the following information:
  - Root Password and Confirmation: The root password for ZENworks Reporting Appliance.
  - zenadmin Password and Confirmation: The zenadmin password for ZENworks Reporting Appliance.
  - NTP Server: The IP address or DNS name of the external Network Time Protocol (NTP) server.
  - **Optional NTP Server:** The IP address or DNS name of the external Network Time Protocol (NTP) server.
  - **Region:** The local region.
  - Time Zone: The local time zone.
- 3 Click Next.
- **4** On the Network Settings page, specify the following information:
  - Hostname: The Fully Qualified Domain Name (FQDN) associated with the appliance IP address. For example, server.domain.com.

The hostname must be resolveable, or some features in ZENworks Reporting do not work properly. Server names must support the DNS requirements, or the ZENworks Reporting login fails. Acceptable characters are the letters a-z (uppercase and lowercase), numbers, and the hyphen (-).

- Obtain IP Address using DHCP: Select this option to get the IP Address using DHCP address. If you select this option IP Address and Networks Mask will be disabled.
- **IP Address:** The server must have a static IP address or a permanently leased DHCP address.
- Network Mask: The network mask associated with the appliance IP address.
- **Gateway:** The IP address of the gateway on the subnet where ZENworks Reporting Appliance is located.
- DNS Server: The IP address of a primary DNS server for your network.
- **Optional DNS Server:** The IP address of a primary DNS server for your network.
- Domain Search: By default, domain that you specified in the Hostname field is displayed.

- **Optional Domain Search:** The alternate domain.
- (Optional) Configure a Network Proxy: If required, you can configure a network proxy by selecting the Configure a Network Proxy check box.

After selecting the check box, specify the following information:

- Proxy URL
- Proxy User Name
- Proxy Password
- 5 Click Next.
- 6 On the Data Store Location page, verify the new hard disk that you added.
- 7 Click Configure.

After configuration, URL is displayed in the console. Use the URL (https://<FQDN>:9443) for administering the appliance and configuring ZENworks Reporting.

**8** Continue with the next task specified in the ZENworks Reporting Configuration.

ZENworks Reporting Configuration

The following sections provide the configuration and reconfiguration flow:

- Section 4.1, "Configuring ZENworks Reporting Appliance," on page 17
- Section 4.2, "Reconfiguring ZENworks Reporting Appliance," on page 22

## 4.1 Configuring ZENworks Reporting Appliance

After deploying the ZENworks Reporting Appliance to a hypervisor, perform the following steps to configure ZENworks Reporting:

1 Launch the URL on a supported web browser.

The URL (https://<FQDN>:9443 or https://<ipaddress>:9443) is displayed on the Appliance console.

- 2 Choose the required language. If the web browser supports the selected language, then it displays in that language, else it displays in English.
- **3** Log in to ZENworks Reporting with the root or zenadmin credentials that were specified while configuring the appliance settings.

When you log in for the first time, you are prompted to configure ZENworks Reporting.

- **4** Verify the prerequisites on the Configure ZENworks Reporting page. You should be prepared with the required information to complete the configuration.
  - Domain specific to your reporting needs
  - Certificate Authority configuration

The ZENworks Reporting server requires a certificate to communicate securely. ZENworks Reporting supports internal and external certificates. If you want to use an internal certificate, it will be automatically generated by ZENworks Reporting. If you want to use an external certificate, you can generate a Certificate Signed Request (CSR) using ZENworks Reporting or by using your organization-specific methods, and then get the signed certificates.

A CSR is encrypted text, provided by a user to the Certificate Authority (CA), through a Secure Sockets Layer (SSL) digital certificate application. The CSR is validated by the CA and a signed certificate is issued.

- 5 Choose If this is a new ZENworks Reporting server.
- 6 If you want ZENworks Reporting to generate a CSR, click Generate CSR.

If you generate the CSR from this page, the Private Key will be stored on the server.

While configuring ZENworks Reporting, you need to have a signed server certificate, private key, and a CA certificate. To get the signed server certificate, you need to generate a CSR and validate by the CA.

6a Specify the following information.

- **Common Name (CN):** The Fully Qualified Domain Name of the ZENworks Reporting server. This name should match the server name in the URL, in order for browsers to accept the certificate for SSL communication. For example, mail.novell.com.
- Organization (O): Organization name.
- **Organizational Unit (OU):** Organizational unit name, such as a department or division.
- City or Locality (L)
- State or Province (ST)
- Country or Region: Two-letter country code or region. For example, US.
- Key length: The required key length can be 1024 or 2048.
- 6b Click Generate and download the CSR.
- 7 Click Configure new ZENworks Reporting server.
- **8** Specify the following to create an administrator account:
  - Username: The user name can have a maximum length of 50 characters. It can contain alphanumeric characters and special characters (underscore \_ and hyphen -).
  - **Password:** The administrator password is used for logging in to ZENworks Reporting. The password must contain a minimum of six characters.
  - **Confirm Password:** Use this field to confirm a correct password. If there is a mismatch, an error message is displayed after you click **Next**. You must re-enter the correct passwords.

This user will have administrator rights. This administrator account can be used to log into ZENworks Reporting independent of user sources and is given higher priority over any similar user existing in configured user sources.

- 9 Click Next.
- 10 (Optional) If you have configured ZENworks Service Desk in your zone, then ensure that you reconfigure the latest System Domains (ZCM, ZSD, etc). For more information, see Reconfiguring ZENworks Reporting Appliance.
- **11** Specify one or more domains that you want to use for ZENworks Reporting. You can add domains from ZENworks Management Zone or import domain resource files.
  - 11a Click Add.
  - **11b** On the Add Domain page, select how you want to add the domain and configure a datasource.

Add Domain 🕜		
Select how you want to add the domain and configure a datasource.		
Add domains fro	m ZENworks Management Zone 🗸	
Specify the follow	ing for a Primary Server in the Management Zone:	
Server address:		
Port:	$\hat{}$	
Username:		
Password:		
r assword.		
	ZENworks Domains	
	ZENworks	
	🗹 Audit	
Domain to add:	Sundle	
	ZENworks Vertica Domains	
	Bundle	
	Patch	
	Add Cancel	

- Choose Add domains from ZENworks Management Zone, then specify the following:
  - Server address: A valid IP address or a Fully Qualified Domain Name (FQDN) of the ZENworks Primary Server in the Management Zone. This Primary Server will be referenced to download the domain resource file and the required database information to configure the datasource for that domain.
  - **Port:** The port used by the Primary Server in the Management Zone.
  - Username: The Management Zone's administrator username for logging in to ZENworks Control Center.
  - Password: The password for the Management Zone's administrator user specified in the Username field.
  - **Domains to add:** Select the domains that you want to add.

or

You can add domains from the ZENworks Management Zone or upload domain resource files.

**NOTE:** While adding Vertica domain using the resource file, ensure that you select **ZENworks Management Zone** in the **Datasource**.

Select how you w	ant to add the domain and configure a datasource.	
Add domain usir	ng resource file 🔹	
Upload the doma	in resource file and select the datasource type:	
Resource File:	Browse	
Datasource:	PostgreSQL 🗸	
Specify the follow	ing for the selected datasource:	
Server address:		
Port:	5432	
Database name:		
Username:		
Password:		

- Choose Add domain using resource file.
- **Resource file (\*.zip):** Drag and drop the domain resource file that had been downloaded and is locally available.
- Datasource: Select the datasource for the uploaded domain.

If the datasource is a database server, specify the following:

- Server Address: A valid IP address or a Fully Qualified Domain Name (FQDN) of the database server.
- **Port:** The port used by the database server.
- Database Name: The name of the database.
- Username: The username that has read and write permissions to access the database.
- **Password:** A valid password to access the database.

If your database server is Microsoft SQL Server, then specify the following:

- Instance name: Specify the name of the Microsoft SQL server instance that is hosting the database.
- Authentication type: Select the authentication type.
- **Domain:** This field is enabled if you select Windows Authentication. Specify the Fully Qualified Domain Name (FQDN) or hostname.

If the datasource is a ZENworks Management Zone, specify the following:

- Server address: A valid IP address or a Fully Qualified Domain Name (FQDN) of the ZENworks Primary Server in the Management Zone. This Primary Server will be referenced to download the domain resource file and the required database information to configure the datasource for that domain.
- **Port:** The port used by the Primary Server in the Management Zone. Until ZENworks 2020 Update 2 443 was the default port. However, from ZENworks 2020 Update 3 onwards 7443 is the default port number.
- Username: The Management Zone's administrator username for logging in to ZENworks Control Center.
- **Password:** The password for the Management Zone's administrator user specified in the Username field.

#### 11c Click Add.

- 12 (Optional) Click Domain hyperlink to edit a configured domain.
- **13** Choose the type of Certificate Authority (CA) for the Management Zone.
  - Internal CA: The certificate is automatically generated.
  - External CA: Choose Secure certificate (.p12, or .pfx), Root certificate and Server certificate with Private key, or Root certificate and Server certificate.
  - 13a Based on the required certificate, specify the details:
    - Secure certificate (.p12 or .pfx)
      - Secure certificate: This certificate stores the server certificate, any intermediate certificate chains, and the private key in a encrypted file, which is password-protected. It supports the .p12 or .pfx file format.
      - **Password:** Password for the secured certificate file.
    - Root certificate and Server certificate with Private Key
      - Root certificate: The top-level certificate in the certificate tree issued by the CA that signed the Server certificate and any intermediate certificate chains. It supports the .pem, .crt, .cer, .der, .p7b, or.p7c file format.
      - Server certificate: It is a signed certificate that is used for the ZENworks server. It supports the .pem, .crt, .cer, .der, .p7b, or .p7c file format.
      - **Private key:** The private key file that is associated with the signed server certificate. It supports the .der file format.
    - Root certificate and Server certificate

To use **Root certificate and Server certificate**, you must have generated a CSR by using the **Generate CSR** link.

- Root certificate: The top-level certificate in the certificate tree issued by the CA that signed the Server certificate and any intermediate certificate chains. It supports the .pem, .crt, .cer, .der, .p7b, or.p7c file format.
- Server certificate: It is a signed certificate that is used for the ZENworks server. It supports the.pem, .crt, .cer, .der, .p7b, or .p7c file format.
- 13b Click Finish.

ZENworks Reporting configuration starts and it might take several minutes. The configuration process will continue in the background even if you close the browser or the browser times out.

After ZENworks Reporting is configured, from the Summary page you can use the **ZENworks Reporting Console** to access the ZENworks Reporting capabilities.

**IMPORTANT:** Ensure that you perform the following:

- When you upgrade the ZENworks Management Zone, the domain should be reconfigured to get the latest ZRS domain resource files available in ZENworks.
- When you change the ZENworks database, domain should be reconfigured so that the domain points to the new database.
- When you change the ZENworks administrator Primary Server password, the domain should be reconfigured.
- When you change the LDAP credentials, reconfigure the LDAP server.

## 4.2 Reconfiguring ZENworks Reporting Appliance

After configuring ZENworks Reporting, you can reconfigure the settings.

To reconfigure the ZENworks Reporting settings.

- 1. On the ZENworks Reporting Appliance home page, click ZENworks Reporting Configuration.
- 2. In the Summary tab, configure the following required settings, and then click Apply:
- Section 4.2.1, "Certificate Configuration," on page 23
- Section 4.2.2, "Domain Configuration," on page 23
- Section 4.2.3, "User Source Configuration," on page 27
- Section 4.2.4, "User Group Configuration," on page 29
- Section 4.2.5, "Admin Group Configuration," on page 31
- Section 4.2.6, "Email Server Configuration," on page 33
- Section 4.2.7, "ZENworks System Integration," on page 33
- Section 4.2.8, "Administrator," on page 33

The asterisk (\*) indicates that one or more configurations are modified. Changes should be applied to take effect.

For more information about the ZENworks Reporting Configuration page, see ZENworks Reporting Configuration.

#### 4.2.1 Certificate Configuration

- Click **Remint** to remint the Internal certificate, if the configured Certificate Authority (CA) is Internal.
- Click Change CA to change the configured CA. Based on the External CA type, specify the details.
   For information on certificates, see Step 13 in ZENworks Reporting Configuration.
- Click View Certificate to see the certificate details.

#### 4.2.2 Domain Configuration

The domain is packaged in the resource file. So, when a new resource file (updated domain) is released as part of a ZENworks or ZENworks Reporting release, you will need to reconfigure domains with this resource file to get the new updates.

This page enables you to add or edit domains. To edit a configured domain, click on the name. You can choose the latest version or the earlier version of the domain or change the datasource details for that domain.

#### NOTE:

- If you reconfigure a domain with the new ZENworks resource file, the existing custom reports, custom datasource, and custom domain will not be changed. Only predefined reports will be updated.
- Before reconfiguring ZENworks Reporting, back up the ZENworks Reporting resources (reports, views and so on) as follows:
  - 1. Log in to the ZENworks Reporting server console (https://<ip>:443) as an administrator.
  - 2. Go to Manage > Server Settings > Export.
  - 3. Save the export.zip file to your local machine.

For reconfiguring domains, see "Reconfiguring the Domain Files" on page 23

#### **Reconfiguring the Domain Files**

1 Launch the URL on a supported web browser.

The URL (https://<FQDN>:9443 or https://<ipaddress>:9443) is displayed on the Appliance console.

- **2** Choose the required language. If the web browser supports the selected language, then it displays in that language, else it displays in English.
- **3** Log in to ZENworks Reporting with the root or zenadmin credentials that were specified while configuring the appliance settings.

When you log in for the first time, you are prompted to configure ZENworks Reporting.

4 Click ZENworks Reporting Configuration under ZENworks Reporting Appliance.

- 5 Click Domain Configuration in the Summary tab.
- 6 Click Add.
- 7 On the Add Domain page, select how you want to add the domain and configure a datasource. You can add domain files in one of the following methods:
  - Add domains from ZENworks Management Zone
  - Add domain using resource file

#### Method 1: Add domains from ZENworks Management Zone

Prerequisites:

You can upload the domain files that you downloaded from SLD to the ZENworks Server on the following locations and then reconfigure the domains:

- ZENworks Windows Primary Server: C:\Program Files (x86)\Micro Focus\ZENworks\resources\zrs
- ZENworks Linux Primary Server: /opt/microfocus/zenworks/resources/zrs

For information on domain files downloaded from SLD, see Section 5.3.3, "Post Migration Tasks," on page 38.

• Choose Add domains from ZENworks Management Zone, then specify the following:

Add Domain 0		
Select how you want to add the domain and configure a datasource.		
Add domains fro	m ZENworks Management Zone 🐱	
Specify the follow	ing for a Primary Server in the Management Zone:	
Server address:		
Port:	\$	
Username:		
Password <sup>.</sup>		
1 455 Word.		
	ZENworks Domains	
	ZENworks	
	S Audit	
Domain to add:	Sundle Sundle	
	ZENworks Vertica Domains	
	Bundle	
	Patch	
	Add Cancel	)

- Server address: A valid IP address or a Fully Qualified Domain Name (FQDN) of the ZENworks Primary Server in the Management Zone. This Primary Server will be referenced to download the domain resource file and the required database information to configure the datasource for that domain.
- **Port:** The port used by the Primary Server in the Management Zone.
- Username: The Management Zone's administrator username for logging in to ZENworks Control Center.
- **Password:** The password for the Management Zone's administrator user specified in the Username field.
- Domains to add: Select the domains that you want to add.
- Click Add.

#### Method 2: Add domains using resource file

**NOTE:** While adding Vertica domain using the resource file, ensure that you select **ZENworks Management Zone** in the **Datasource**.

Choose Add domain using resource file.

Add Domain		0	
Select how you want to add the domain and configure a datasource.			
Add domain usin	g resource file 🔹		
Upload the domain	n resource file and select the datasource type:		
Resource File:	Browse		
Datasource:	PostgreSQL •		
Specify the followi	ng for the selected datasource:		
Server address:			
Port:	5432		
Database name:			
Username:			
Password:			
	Add Cancel		

- Resource file (\*.zip): Drag and drop the domain resource file (Audit Domain zrs-auditres.zip, Bundle Domain - zrs-bundle-resource.zip, ZENworks Domain - zrs-resource.zip and Vertica Domain - zrs-vertica-resource.zip) that had been downloaded and is locally available.
- Datasource: Select the datasource for the uploaded domain.

If the datasource is a database server, specify the following:

- Server Address: A valid IP address or a Fully Qualified Domain Name (FQDN) of the database server.
- **Port:** The port used by the database server.
- Database Name: The name of the database.
- Username: The username that has read and write permissions to access the database.
- Password: A valid password to access the database.

If your database server is Microsoft SQL Server, then specify the following:

- Instance name: Specify the name of the Microsoft SQL server instance that is hosting the database.
- Authentication type: Select the authentication type.

• **Domain:** This field is enabled if you select Windows Authentication. Specify the Fully Qualified Domain Name (FQDN) or hostname.

If the datasource is a ZENworks Management Zone, specify the following:

- Server address: A valid IP address or a Fully Qualified Domain Name (FQDN) of the ZENworks Primary Server in the Management Zone. This Primary Server will be referenced to download the domain resource file and the required database information to configure the datasource for that domain.
- **Port:** The port used by the Primary Server in the Management Zone. Until ZENworks 2020 Update 2 443 was the default port. However, from ZENworks 2020 Update 3 onwards 7443 is the default port number.
- Username: The Management Zone's administrator username for logging in to ZENworks Control Center.
- **Password:** The password for the Management Zone's administrator user specified in the Username field.
- Click Add.

#### 4.2.3 User Source Configuration

Click User Source Configuration.

To add or edit multiple user sources.

Configure User Sources				0
Add user sources to access ZE them. Ordering is required to re- attempts to log into ZENworks F	works Reporting. Use Mo olve user conflict if a user eporting.	we up (个) or Move existing across mu	down (়✦) to order Itiple user sources	
Add Delete Test 🛧 🔸				
Server	Port	User		
				_
			OK Cance	el

• Click Add to add a user source, specify the following details:

Add User Source	0
Specify the user Reporting.	source details used to log in to ZENworks
Server address:	X00., X00., X00., X
Port:	389 🖶 🗉 Use SSL
Username:	cn=admin,o=microfocus cn=ReadOnlyUser,o=mycompany(eDr) cn=ReadOnlyUser,dc=organization,dc=com (Active Directory)
Password:	•••••
	Add Cancel

- Server Address: Specify the Fully Qualified Domain Name (FQDN) or IP address of the User Source, which is used for user authentication.
- **Port:** The default port value is displayed based on the selected SSL. The default SSL port is 636 and the default non-SSL port is 389. If the user source is configured with a different port, other than the above mentioned default ports, then the port must be updated accordingly.
- Username: ZENworks Reporting server needs read-only access to the LDAP directory to authenticate every login attempt. The credentials of this user is used to get read-only access.

Specify the username in distinguished name (DN) format. For example:

- **eDirectory:** cn=ReadOnlyUser,o=mycompany
- Microsoft Active Directory:

cn=ReadOnlyUser, cn=users, dc=organization, dc=com

After configuration, if the credentials of this user is modified, ZENworks Reporting server will not be able to access the LDAP directory to authenticate login attempts. You must reconfigure ZENworks Reporting with the new credentials.

Active Directory allows you to create an organization unit (OU) and username with some special characters that are not accepted by the ZENworks Reporting Appliance (the appliance does not proceed further with the unsupported special characters). In this scenario, each of these special characters ; = , + < >" must be appended with a backslash "\". For example, specify ReadOnly, User as ReadOnly\,User

- Password: Specify the password of the first authentication user.
- Click **OK** to check whether the connection to the user source is established.

If you have enabled the Use SSL check box, then a certificate popup is displayed. Verify the details, and then click Accept.

- Click **OK** to continue.
- **Delete:** Select the user source that you want to remove and click **Delete**. If a user source is deleted, the users from that user sources cannot have access to ZENworks Reporting.
- Move up: Select the user source that you want to step up in the list. This ensures that the user authentication for this user source is attempted with higher priority than those listed below.

- **Move down:** Select the user source that you want to step down in the list. This ensures that the user authentication for this user source is attempted with lower priority than those listed above.
- **Test:** Select the user source that you want to test, and then click **Test** to check whether the connection to the user source is established.

#### 4.2.4 User Group Configuration

To add user groups from the configured user sources so as to get ZENworks Reporting administrator rights for the members of the those groups.

Configure User Groups for Administrator Role
Specify one or more groups from user sources that you want to assign the administrator role. Users in these groups will have administrator privileges.
Add Delete
Group User Source
cn=admingroup.o=novell
OK Cancel

• Click Add and specify the following to add a LDAP group:

Add Admin	istrator Groups		0
Source		•	
Look in	Entire user source	Browse	
	Search sub-folders		
Search for		٩	
Name	Location		
		OK Add Ca	ancel

- **Source:** Select a configured user source.
- Look in: You can search the entire user source or click Browse to select a specific search container from the user source. Select the Search sub-folders check box to search the container recursively.
- Search for: Specify the name or a few characters that contain the name of the group you want to search and click the search icon. The names of the groups in the search container that contain the search text is displayed. You can select one or more groups from the search results, then click Ok to add user groups. Else, click Add if you want to configure them and continue.
- Select one or more groups from the list and click Delete to revoke administrator privileges from the users belonging to these administrator groups.
- Select the Group check box to select all the groups from the list and delete.

**IMPORTANT:** •Only administrators have access permissions to ZENworks Reporting. The administrator privileges are:

- View, run, schedule, create, save, and delete various ZENworks Reporting resources (For example: reports, views, domain, and data sources)
- Assign access permissions (read, write, delete, execute, and administer) for various ZENworks Reporting resources to other users either at a role level or at a user level.
- Manage ZENworks Reporting server settings
- Delete users or roles
- If you have selected a parent group (a group containing other sub-groups), note the following:
  - For Active Directory: Users in those sub-groups will not have administrator privileges. To assign these users administrator privileges, configure them individually.
  - For eDirectory: All the sub-groups will also have administrator privileges.

#### 4.2.5 Admin Group Configuration

Configure the groups from the configured User Sources as ZENworks Reporting administrator groups. Users belonging to these groups will have administrator privileges in ZENworks Reporting.

Configure User Groups for Administrator Role	0
Specify one or more groups from user sources that you want to assign the administrator role. I in these groups will have administrator privileges.	Users
Add Delete	
Group User Source	
cn=Admin_grp_test,o=novell	
cn=admingroup,o=novell	
CN=test-grp-1200-1250,CN=Large2kUsers,CN=DEV- Users,CN=Users,DC=RRTDEV,DC=com	
CN=AUTOMATION_ZRS,CN=Builtin,DC=RRTDEV,DC=com	
OK Ca	ncel

• Add: Click Add to add groups from a configured User Source. These groups will be listed below after they are configured.

Add Admin	istrator Groups		0
Source		•	
Look in	Entire user source	Browse	
Search for	Search sub-folders	0	
Name	Location		
		OK Add Can	cel

Specify the following to add a Admin Group:

- Source: Select a configured user source.
- Look in: You can search the entire user source or click Browse to select a specific search container from the user source. Select the Search sub-folders check box to search the container recursively.
- Search for: Specify the name or a few characters that contain the name of the group you
  want to search and click the search icon. The names of the groups in the search container
  that contain the search text are displayed. You can select one or more groups from the
  search results and click Add if you want to configure them and continue.
- Delete: Select one or more groups from the list and click Delete to revoke administrator privileges from the users belonging to these administrator groups.
- Select All: Select the Group check box to select all the groups from the list. You may then perform a bulk delete action on the selected groups.

**IMPORTANT:** •Only administrators have access permissions to ZENworks Reporting. The administrator privileges are:

- View, run, schedule, create, save, and delete various ZENworks Reporting resources (For example: reports, views, domain, and data sources)
- Assign access permissions (read, write, delete, execute, and administer) for various ZENworks Reporting resources to other users either at a role level or at a user level.
- Manage ZENworks Reporting server settings
- Delete users or roles
- If you have selected a parent group (a group containing other sub-groups), note the following:
  - For Active Directory: Users in those sub-groups will not have administrator privileges. To assign these users administrator privileges, configure them individually.
  - For eDirectory: All the sub-groups will also have administrator privileges.

#### 4.2.6 Email Server Configuration

**Click Email Server Configuration.** 

Configure the outbound email server settings to send email notifications and reports.

To configure the outbound email server, specify the following:

- **Outbound email server:** Specify the FQDN or IP address of the SMTP server. The SMTP server is used for mailing scheduled reports.
- **Port:** Specify the port number on which the SMTP server is listening. The default port number is 25.
- Use SSL/TLS: Select this option if the SMTP server is running on SSL or TLS.
- Sender email address: Specify the sender email address from which all scheduled reports will be sent.
- **Requires Password:** Clear the check box to configure the Outbound email server without authentication. Select the check box if you want the sender to use a password for authentication.
- **Password:** Specify the sender's password.
- Click Ok.

#### 4.2.7 ZENworks System Integration

If ZENworks Reporting Server is integrated with ZENworks Service Desk or ZENworks Configuration Management, then ensure that you review the database details of domain communication and verify ZRS with the latest domains. For more information, see Reconfiguring ZENworks Reporting Appliance.

For more information connecting to the ZENworks Service Desk domain (database), see ZENworks Service Desk database Configuration in ZENworks Service Desk Administration Guide.

For more information connecting to the ZCM Domain (database), see the ZENworks Database Management Reference.

#### 4.2.8 Administrator

Change the password for ZENworks Reporting administrator.

## **5** ZENworks Reporting Migration

This chapter includes information to help you migrate from ZENworks Reporting 6.4.x, 7.2 or 7.8.x to ZENworks Reporting 8.1.x.

**NOTE:** If you are migrating from ZENworks Reporting 6.4.x, you need to first migrate to 7.2, and then migrate to ZENworks Reporting 8.1.x.



For more information on migrating ZENworks Reporting 6.4.x to 7.2, see Migrating ZENworks Reporting.

The following sections provide instructions for migration:

- Section 5.1, "Prerequisites for ZENworks Reporting Migration from 7.8.x to 8.1.x," on page 35
- Section 5.2, "Backing up the ZENworks Reporting 7.2 or 7.8.x Data," on page 36
- Section 5.3, "Migrating to the ZENworks Reporting 8.1.x Appliance," on page 36

## 5.1 Prerequisites for ZENworks Reporting Migration from 7.8.x to 8.1.x

Ensure that you perform the following in ZENworks Reporting 7.8.x before migrating to ZENworks Reporting 8.1.x:

1. Download the ZRS\_811\_Prerequisite.zip file from the following location:

https://sld.microfocus.com/mysoftware/download/downloadCenter

2. In ZENworks Reporting Appliance, click **Terminal & File Explorer** and run the following command:

mkdir /tmp/ZRS\_811\_Prerequisite

This command create a /tmp/ZRS\_811\_Prerequisite directory.

- 3. Copy the ZRS\_811\_Prerequisite.zip file into the /tmp.
- 4. Extract the contents of the file by running the following command: unzip /tmp/ZRS\_811\_Prerequisite.zip -d /tmp/ZRS\_811\_Prerequisite
- 5. Run the following command to provide the Execute permissions: chmod -R +x /tmp/ZRS\_811\_Prerequisite
- Run the following command to change the directory: cd /tmp/ZRS\_811\_Prerequisite
- 7. Run the following command to apply the patch:
  - ./patch\_zrs\_78.sh
- 8. Restart Jetty and the datamodel services by running the following commands:
  - rcvabase-jetty restart
  - rcvabase-datamodel restart
- 9. Continue with the next tasks specified in Backing up the ZENworks Reporting 7.2 or 7.8.x Data.

## 5.2 Backing up the ZENworks Reporting 7.2 or 7.8.x Data

To back up the ZENworks Reporting 7.2 or 7.8.x data:

- **1** Log into ZENworks Reporting Appliance admin console.
- 2 Under ZENworks Reporting Appliance click ZENworks Reporting Backup (https:// <FQDN>:9443 or https://<ipaddress>:9443).

ZENworks Reporting backup is stored in the /vastorage/backup folder in the file system.

**3** Note the location of the second hard disk and then copy the hard disk to an accessible location.

For example, if you are using VMware ESX, right-click on the machine, Edit settings, note down where the hard disk is located. Go to the location and copy the hard disk file. The file format will be in <machinename>.vmdk

It is recommended to back up the  $/{\tt vastorage/backup}$  directory to another location on the 7.2 or 7.8.x appliance.

- **4** Power off the older ZENworks Reporting Appliance and take a snapshot.
- **5** Continue with the next tasks specified in Migrating to the ZENworks Reporting 8.1.x Appliance.

**IMPORTANT:** If you make any changes in the ZENworks Reporting server after backing up, then ensure that you back up ZENworks Reporting before initiating the migration.

### 5.3 Migrating to the ZENworks Reporting 8.1.x Appliance

- Section 5.3.1, "Pre-Migration Tasks," on page 37
- Section 5.3.2, "Migration," on page 37
- Section 5.3.3, "Post Migration Tasks," on page 38

#### 5.3.1 Pre-Migration Tasks

- If you are migrating from ZENworks Reporting 6.4.x, you need to first migrate to 7.2, and then migrate to ZENworks Reporting 8.1.x.
- If you are using the eDirectory or Active Directory, then ensure that you update your setup to the following versions.
  - NetIQ eDirectory 9.2 v40201.14 or later
  - Microsoft Active Directory (as shipped with Windows 2016 or later)

For other requirements, see "System Requirements" on page 9.

**IMPORTANT:** The appliance migration might fail if the minimum version of eDirectory or Active Directory is not used.

 After configuring ZENworks Reporting Appliance, if you make any modifications to the zone administrator, user name, password, LDAP credentials or certificates in ZENworks, then before migrating the appliance, reconfigure ZENworks Reporting Appliance to get the latest updates from ZENworks.

#### 5.3.2 Migration

To migrate reporting appliance, perform the following steps:

- 1 Deploy the ZENworks Reporting appliance. For more information, see Chapter 3, "Appliance Deployment," on page 13
- 2 Add the hard disk copied while Backing up the ZENworks Reporting 7.2 or 7.8.x Data as a second hard disk (vastorage).
- **3** Boot the ZENworks Reporting 8.1.x Appliance and specify the new password for zenadmin and root users.

After the process is completed, on Appliance login console the URL is displayed, which is used for configuring the appliance.

Appliance supports root and zenadmin users.

The root and zenadmin users have the following privileges:

- On Appliance
  - Network
  - Time
  - Storage
  - System Services
  - Firewall
  - Administrative Passwords
  - Field Patch
  - Online Update
  - Shutting Down and Restarting ZENworks Reporting Appliance

- On ZENworks Reporting
  - ZENworks Reporting Configuration
  - Terminal and File Explorer
  - Logs
  - ZENworks Reporting Backup
- **4** Specify the ZENworks Reporting Administrator password. The password must contain a minimum of six characters.
- **5** Click Validate Domain to verify the connection to the ZENworks server and to ensure domains are up-to-date.
- 6 Click Finish to complete the migration process.

**IMPORTANT:** •The migration is complete only when certificates are valid. The hostname of the appliance should be same as the hostname specified in the certificate.

- After migration, ensure that all your configuration are visible under Summary: LDAP, Certificates, Domain, SMTP and so on.
- If the following error is displayed during migration, then ensure that you perform the steps specified in the Section 5.1, "Prerequisites for ZENworks Reporting Migration from 7.8.x to 8.1.x," on page 35.



Your appliance is migrated. You can perform the post migration steps, if applicable.

#### 5.3.3 Post Migration Tasks

After successfully migrating, perform the following tasks only if required.

 In the ZENworks Reporting 8.1.x release, we have made modifications to the ZENworks Reporting Domains (Audit, Bundle, ZENworks, and Vertica). If you are using ZENworks 2020 Update 3 with ZENworks Reporting, then you need to download the ZENworks2020U3\_Domain\_files.zip file from the following link and add it to the Reporting Appliance.

Adding the domain file resolves the ZENworks domain related issues. For information on list the issues that are resolved, see the Readme\_ZENworks2020U3\_Domain\_files.txt file on SLD.

**NOTE:** It is mandatory to apply the ZENworks2020U3\_Domain\_files.zip file only if the ZENworks zone is on ZENworks 2020 Update 3. Do not add the domain files if you are currently on ZENworks 2020 Update 2 or earlier versions.

https://sld.microfocus.com/mysoftware/download/downloadCenter

Extract the ZENworks2020U3\_Domain\_files.zip file.The .zip file contains the following domain files:

- Audit Domain zrs-audit-res.zip
- Bundle Domain zrs-bundle-resource.zip
- ZENworks Domain zrs-resource.zip
- Vertica Domain zrs-vertica-resource.zip

For more information on how to add the downloaded domains, see "Reconfiguring the Domain Files" on page 23.

 If you are connected to ZENworks Service Desk, ensure that you upgrade the reporting database domain to the latest ZENworks Service Desk Database. For more information, see Reconfiguring ZENworks Reporting Appliance in ZENworks Reporting Appliance Deployment and Administration Reference.

# 6

**ZENworks Reporting System Management** 

The user interface helps you to configure and perform operations on ZENworks Reporting. Based on the login user the tiles are displayed.

On ZENworks Reporting Appliance, the root or zenadmin user has all privileges. The zenadmin user is used as a ZENworks Reporting administrator to perform day-to-day activities in ZENworks Reporting.

The following operations can be performed by root and zenadmin:

- Explore all files and folders of appliance system
- View and edit logs
- View and edit ZENworks Reporting configuration
- Restart both appliance and ZENworks Reporting
- Launch a terminal and execute ZENworks Reporting commands

Figure 6-1 Appliance Home page (after configuring ZENworks Reporting)

Appliance Config	uration					Reboot Shutdown
Network	Time	Storage	System Services	Firewall	Administrative Passwords	Field Patch
ZENworks Repor	ting Appliance					U Restart Services
ZENworks Reporting Configuration	Terminal & File Explorer	Logs	ZENworks Reporting Backup			

To manage ZENworks Reporting:

1 Launch the URL on a supported web browser.

For example: https://<FQDN>:9443 or https://<ipaddress>:9443

2 Specify the login credentials, then click Log in.

The following options are available under ZENworks Reporting Appliance:

- Section 6.1, "ZENworks Reporting Configuration," on page 42
- Section 6.2, "Terminal and File Explorer," on page 44
- Section 6.3, "Logs," on page 47
- Section 6.4, "ZENworks Reporting Backup," on page 49

## 6.1 **ZENworks Reporting Configuration**

The ZENworks Reporting Configuration page is enabled only after ZENworks Reporting is successfully configured.

1 On the ZENworks Reporting Appliance home page, under ZENworks Reporting Appliance, click ZENworks Reporting Configuration.

The ZENworks Reporting Configuration page has the Summary, Basic, and Advanced views. The Basic view displays frequently used server configuration settings. In the Advanced view, you can edit any relevant server configuration file online. To reflect modified changes, some services might need to restart.

The Summary view enables you to view and reconfigure the ZENworks Reporting settings, such as Certificate, Domain, User Source, User Group, Email Server configuration, change Administrator password, and Appliance details, such as type of hypervisor used, operating system, RAM and file system and HDD details.

Click Open ZENworks Reporting Console to use ZENworks Reporting.

To reconfigure ZENworks Reporting settings, see *Reconfiguring ZENworks Reporting Appliance*.

The Appliance comes with the built-in 43 GB of rootfs file system that is mounted on root directory. Additional hard disk that is added will be attached to the /dev/sdb1 and mounted on / vastorage. All ZENworks Reporting related configurations, log files, backup files, certificates, and binaries are stored in additional hard disk.

#### Figure 6-2 ZENworks Configuration Views

ZENworks Reporting Co	onfiguration				
Summary Basic Adva	nced				Ů Restart Services
C Refresh All	Reset To Default	n/apache-tomcat/o	onf		<b>B</b>   •
🔺 🚞 Tomcat	Download	Туре	Size	Date modified	
▷ 🔚 conf		POLICY File	12 KB	7/2/13 1:29:36 PM	
Scripts	Reset all values to defaults	PROPERTIES	6 KB	7/2/13 1:29:36 PM	
ZENworks Reporting	Download all files	XML File	1 KB	7/2/13 1:29:36 PM	
	server.xml	XML File	7 KB	5/18/15 2:27:24 PM	
	tomcat-users.xml	XML File	1 KB	7/2/13 1:29:36 PM	
	web.xml	XML File	164 KB	5/18/15 2:55:55 AM	

The Basic view displays frequently used server configuration settings as an individual configuration value. You can edit frequently used ZENworks Reporting related settings such as Min Heap Size, Max Heap Size, Min Permanent Generation size, Max Permanent Generation size, and Thread Stack size.

For example, you can configure Thread Stack size (in MB) by changing the default value, save, and then restart the pending service that is available in Restart Service page.

Basic view has the following options:

ZENworkse Reporting Appliance		root   Home   Logout 🕞
ZENworks Reporting Configuration		Restart Services     (?)
Summary Basic Advanced		
States D Refresh C Reset al values to defaults		÷
ZENworks Reporting Configuration		
Memory Heap		
Min Heap Size (in MB)	1024	
Max Heap Size (in MB)	4000	
Min Permanent Generation Size (in MB)	32	
Max Permanent Generation Size (in MB)	512	
Thread Stack Size (in MB)	2	
		-
© Copyright © 2018 Micro Focus Software Inc. All rights reserved.		

- Save: Saves the modified settings.
- **Refresh:** Refreshes all the ZENworks Reporting configurations.
- **Reset all values to default:** Reverts the settings to its original state after configuration. This is the last applied or migrated ZENworks Reporting.
- **Restart Services:** Enables you to select the services that need to be restarted for configuration changes and to reflect the changes.

When there is any changes in the configuration file that is associated with the ZENworks Reporting process, then the system determines automatically and process get listed in the Restart Services page.

The Advanced view enables you to view, configure, or edit any server configuration file that is related to ZENworks Reporting, such as Tomcat and ZENworks Reporting.

In the Advance tab the jvmsettings.properties file for minimum and maximum values has no validation functionality. Ensure that you use the values within the range. We recommend you to configure the size using the **Basic** tab.

Figure 6-3 Tool Bar

Edit Mode:	<b>່ວ</b> Reload	CReset To Default	
------------	------------------	-------------------	--

By default the file will be in Read-Only mode. To edit a file, toggle the **Edit Mode**, change the required content of the file, and then **Save**. Whenever there is any changes to the file, then corresponding process has to be restarted by clicking **Restart Services**.

The Advanced view has the following options:

ZENworks® Reporting Applian	ce	root   Home   Logout 🕞
ZENworks Reporting Configuration		C Restart Services (?)
Summary Basic Advanced		
Summary Basic Advanced	Server Configuration Files  Extreme Configuration Files  Tomcal Configure torcat that hosts ZENworks Reporting.  Configuring ZENworks Reporting application hosted in Tomcat.	÷ ( <b>A</b> )
© Copyright © 2018 Micro Focus Software Inc. All rights res	served.	

- **Download:** Downloads the server configuration files.
- Edit Mode: Enables you to toggle or edit a server configuration file in an editor.
- **Reload:** Loads the server configuration file from the file system. Any unsaved changes made in the browser editor will be lost.
- **Reset all values to default:** Reverts the file to its original state after configuration. This is the last applied ZENworks Reporting System update.
- **Download all Files:** Downloads all the server configuration folders that are displayed in the left pane. The appliance creates a compressed archive of the files to be downloaded.
- Save: Saves a server configuration file to file system.
- **Restart Services:** Enables you to select the services that need to be restarted for configuration changes (in Basic or Advanced view) and to reflect the changes.

When there is any change in the configuration file that is associated with the ZENworks Reporting process, then the system determines automatically and process the list of changes in the Restart Services page.

- Select Path: Click the select path 🕒 icon to copy the physical path of the configuration file.
- **Refresh:** Refreshes all the ZENworks Reporting configurations.

## 6.2 Terminal and File Explorer

This tile launches an integrated view for File System Explorer and Terminal.

- Section 6.2.1, "Terminal," on page 45
- Section 6.2.2, "File Explorer," on page 46

#### 6.2.1 Terminal

SSH service needs to be running for the terminal to work. SSH service is not started by default for security reasons.

- 1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click the System Services icon.
- 2 Select the SSH service on the System Services page.
- 3 Click Action, then click Start.

Set the SSH service to Automatic, if you want to restart the SSH service automatically after you reboot the device.

4 On the ZENworks Reporting Appliance home page, under ZENworks Reporting Appliance, click Terminal & File Explorer

A new browser window launches two frames that display a **File Explorer** (for performing file operations) and a **Terminal**. Whenever you close the Terminal browser or tab, then a confirmation message is displayed.

Figure 6-4 Terminal



You can perform file operations by using an embedded File Explorer that enables you to transfer content between the local and the remote file systems. You can also open new terminals rooted at any folder in the remote file system.

You can launch more than one terminal by clicking **New Terminal**. By default, a maximum of five terminals can be launched.

To configure with any other value than the default value of the terminal:

- 1 Go to /etc/opt/novell/base
- **2** Open the terminal\_config.properties file.
- **3** Change the maxTerminalsPerBrowser value with the required value, then save the file.

To select a theme (foreground and background color) for the terminals:

1 Click the Settings icon, then select the required terminal theme.

To create a theme:

- 1 Go to /etc/opt/novell/base
- 2 Open the terminal-themes.xml file.
- **3** Add your own theme, then save the file. For example:

```
<theme>
        <name>example</name>
        <background-color>#000000</background-color>
        <foreground-color>yellow</foreground-color>
</theme>
```

#### 6.2.2 File Explorer

1 On the ZENworks Reporting Appliance home page, under ZENworks Reporting, click Terminal & File Explorer.

A new browser window launches two frames that display a **File Explorer** (for performing file operations) and a **Terminal** (SSH).

ZENworks。	Reporting			root Home Logout
🖵 New Terminal	🗅 Hide File Explorer			0
File Explorer				
<ul> <li>▲ □ /</li> <li>▶ □ bin</li> <li>▶ □ etc</li> </ul>	/ib			
home	Name	Type	Size	Date modified
<ul> <li>▷ □ lib64</li> <li>▷ □ lost+found</li> <li>▷ □ LVM1</li> </ul>	i firmware Isb	File folder File folder File folder		5/18/15 2:40:47 AM 5/18/15 2:46:38 AM 5/18/15 2:45:32 AM 2/3/12 9:23:27 PM
⊳ 🛅 LVM2 ⊳ 🚞 media	<ul> <li>modules</li> <li>security</li> </ul>	File folder File folder		5/18/15 2:46:38 AM 5/18/15 2:45:36 AM
<ul> <li>▷ □ mnt</li> <li>▷ □ opt</li> <li>▷ □ root</li> </ul>	<ul> <li>udev</li> <li>xcrypt</li> <li>YaST</li> </ul>	File folder File folder File folder		7/11/14 4:24:19 AM 5/18/15 2:45:36 AM 5/18/15 2:46:14 AM
⊳ 🖻 sbin File Explorer	× .3.so	File SO File	82 bytes 141 KB	10/7/14 5:14:20 AM 4/24/15 6:26:19 AM

This enables you to perform operations on files and folders.

- The file operations are based on user privileges (POSIX file permissions).
- If you log in as zenadmin, all file operations are executed as zenworks user.
- If you log in as root, all file operations are executed as root user.

- In the tabular view, a context menu is available with these options: Open Terminal, Refresh, Upload, New Folder, and New File.
- The Tree View for appliance file system displays the Appliance file system as a tree. Only folders are displayed in the tree view. The following options are available New folder, Delete, Rename, Open Terminal, Refresh, Cut, Copy, Paste, Upload, and Download.
- File explorer enables you to explore the Appliance's (SLES -Unix) file system, breadcrumb navigation, upload, download, refresh, rename, create, delete, or, CCP operations (cut, copy, and paste).

lcon	Name	Description
0	Terminal Settings	To change the terminal theme display settings.
6	Select Path	To select file path that is displayed on the breadcrumb.
0	Settings	To configure which file settings to show or hide.
1	Breadcrumb	Displays the path for selected file or folder.
t	Parent Directory	Display the contents of the parent folder in the tabular view.
*	Download	To download files and folders under a specified folder.
<u>1</u>	Upload	Supports multiple file upload; folder upload is not supported.
	New folder	Creates a folder in the current folder.
	New file	Creates a new file in the current folder.
2	Refresh	Updates the tabular view with the latest contents from the appliance.
Ē	Delete	Enables you to delete multiple files and folders under a specified folder.

Below the file path, a toolbar is displayed and you can perform the following:

#### 6.3 Logs

All log files that are monitored on ZENworks Reporting Appliance are organized in a virtual tree structure and path of the particular file or folder is displayed. Log files can be viewed in the Tail mode or View From Start mode.

In the Tail mode, a log file is displayed from the end of log file.

In the View From Start mode, a log file is displayed from the start of the log file. Whenever log files span across multiple version of files, then starting from the first version of that file the content is displayed.

1 On the ZENworks Reporting Appliance home page, under ZENworks Reporting Appliance, click Logs.

Figure 6-6 Logs

ZENworks® Reporting root   Home   Logout					
C Refresh All	/var/opt/novell/log/ZENworks Reporting				<b>B</b>  +
appliance	Name	Туре	Size	Date Modified	
▶ 🔄 OS	🛅 backup	File folder		7/6/15 12:30:42 PM	
ZENworks Reporting	🖻 js	File folder		7/6/15 11:06:58 AM	
▷ 🛅 backup	📄 postgresql	File folder		7/6/15 11:06:58 AM	
🕨 🛅 js	iomcat	File folder		7/7/15 12:37:29 PM	
postgresql	🔁 web	File folder		7/6/15 12:30:42 PM	
▷ image to be a set of the se	ZENworks-Reporting-Install_05_Jul_2015_11.48.21.log.xml	XML File	20 KB	7/5/15 9:21:52 PM	
Web Sector	ZENworks-Reporting-Install_06_Jul_2015_11.15.16.log.xml	XML File	190 KB	7/6/15 11:24:46 AM	
ZENworks-Reporting-Install_05_Jul_2015_11.48.21.log.xml	ZENworks-Reporting-Install_06_Jul_2015_11.46.32.log.xml	XML File	34 KB	7/6/15 11:51:50 AM	
ZENworks-Reporting-Install_06_Jul_2015_11.15.16.log.xml	ZENworks-Reporting-Install_06_Jul_2015_12.07.27.log.xml	XML File	32 KB	7/6/15 12:12:31 PM	
ZENworks-Reporting-Install_06_Jul_2015_11.46.32.log.xml	ZENworks-Reporting-Install_06_Jul_2015_15.29.08.log.xml	XML File	32 KB	7/6/15 3:34:06 PM	
ZENworks-Reporting-Install_06_Jul_2015_12.07.27.log.xml	ZENworks-Reporting-Install_07_Jul_2015_11.59.55.log.xml	XML File	101 KB	7/7/15 12:08:26 PM	
ZENworks-Reporting-Install_06_Jul_2015_15.29.08.log.xml	ZENworks-Reporting-Install_07_Jul_2015_12.26.09.log.xml	XML File	31 KB	7/7/15 12:30:54 PM	
ZENworks-Reporting-Install_07_Jul_2015_11.59.55.log.xml	ZENworks_Reporting_InstallLog.log	LOG File	19 KB	7/7/15 12:30:54 PM	
ZENworks-Reporting-Install_07_Jul_2015_12.26.09.log.xml					
ZENworks_Reporting_InstallLog.log					

This enables you to view logs of the ZENworks Reporting server. Logs are categorized based on Appliance logs, operating system logs, and ZENworks Reporting logs.

Logs has the following options:

- View, View From Start, and Refresh
- Download enables you to download a log file or a folder.
- Resume and Pause enable you to tail log files to see the latest information. You can configure
  the refresh interval of a tail by specifying the Refresh time in Seconds. Refresh specifies the
  interval of time between two requests.

Specify Lines to load to control the number of lines to be retrieved for the tail interval. By default Lines to load is set to 100.

Control the speed in which log file is displayed. Log files are loaded by making multiple HTTP requests in periodic intervals of time. Each request loads a configurable number of lines.

- Clear enables you to clear the current displayed logs. However, logs will not be cleared in ZENworks Reporting Appliance. To see the cleared logs, start the log file.
- Search enables you to filter logs based on the search criteria. You can use tail and grep to monitor log files from the terminal. The log viewer provides a GUI for tailing and filtering the content in log files. You can search based on log level such as INFO, ERROR, and DEBUG and also with regular expressions (AND and OR).

## 6.4 ZENworks Reporting Backup

ZENworks Reporting Backup enables you to back up the ZENworks Reporting related files such as ZENworks Reporting server configuration, properties, domains, certificates, customized reports, and schedules. Backup is used to restore all the backed up configuration files on a new appliance while migrating.

To back up the ZENworks Reporting files:

- 1 On the ZENworks Reporting Appliance home page, under ZENworks Reporting Appliance, click ZENworks Reporting Backup.
- 2 Click Start Backup.

The backed up files will be stored at /vastorage/backup location.

**7** Appliance Management

In ZENworks Reporting Appliance, a web based interface is provided to manage the appliance. The user interface helps you to configure and perform operations on a ZENworks Reporting server. Based on the login user the tiles are displayed.

ZENworks Reporting Appliance enables you to reconfigure settings of the appliance, such as administrative passwords, network settings, and certificate settings.

ZENworks Reporting Appliance supports root and zenadmin users. You must use the root user if you want to perform any operations on ZENworks Reporting Appliance. Since, root user has all privileges on the ZENworks Reporting Appliance and ZENworks Reporting.

To manage ZENworks Reporting Appliance:

1 On a supported web browser, launch the URL to access the Management Console.

The URL (https://<FQDN>:9443 or https://<ipaddress>:9443) that is displayed on the Appliance console.

2 Specify the login credentials, then click Log in.

The following options are displayed under Appliance Configuration:

- Section 7.1, "Network," on page 51
- Section 7.2, "Time," on page 52
- Section 7.3, "Storage," on page 52
- Section 7.4, "System Services," on page 52
- Section 7.5, "Firewall," on page 53
- Section 7.6, "Administrative Passwords," on page 53
- Section 7.7, "Field Patch," on page 54
- Section 7.8, "Online Update," on page 54
- Section 7.9, "Shutting Down and Restarting ZENworks Reporting Appliance," on page 55

#### 7.1 Network

- 1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Network.
- 2 Below DNS Configuration, you can modify the name servers, search domains, and gateway settings for the ZENworks Reporting Appliance network.
- **3** Below NIC Configuration, click the ID to modify the IP address, hostname, and network mask of any Network Interface Controller (NIC) associated with the appliance. (If multiple NICs are configured for ZENworks Reporting Appliance, you can configure the additional NICs.)
- **4** Click **OK**, then restart the appliance to reflect the changes.

- **5** (Optional) In the **Appliance Administration UI (port 9443) Access Restrictions**, specify the IP address of any networks for which you want to allow access to the ZENworks Reporting Appliance. Leave this blank to allow any network to access the ZENworks Reporting.
- **6** (Optional) In the Proxy Settings, select the Use a proxy to connect to the internet checkbox, specify the required information.
- 7 Click OK.

## 7.2 Time

- 1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Time.
- 2 Change the required time configuration options:
  - NTP Server: Specify the NTP server that you want to use for time synchronization. Multiple servers can be specified by providing spaces.
  - **Region:** Select the region where ZENworks Reporting Appliance is located.
  - Time Zone: Select the time zone on which ZENworks Reporting Appliance is located.
  - Hardware Clock Set to UTC
- 3 Click OK.

### 7.3 Storage

If you have created hard disk partitions (/vastorage and /var), ZENworks Reporting Appliance provides tools that allow you to expand the storage space for the /vastorage and /var partitions.

- **1** Shutdown the appliance.
- **2** Use the tools provided by your virtualization platform vendor to expand the virtual disks that contain the partitions your are expanding.
- **3** Start the appliance.
- 4 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Storage.
- 5 In the Appliance Disks Containing Unallocated Free Space, select the partitions to be expanded.
- 6 Click Expand partitions.
- 7 Click OK in the pop-up window.
- 8 In the appliance home page, click Reboot so that the operating system detects the disks that are expanded.

### 7.4 System Services

This is the SSH service that is running on the ZENworks Reporting Appliance. The following system services are available:

• SSH

In the System Services page, you can perform the following actions:

- Section 7.4.1, "Starting, Stopping, or Restarting System Services," on page 53
- Section 7.4.2, "Setting System Services to Automatic or Manual," on page 53

#### 7.4.1 Starting, Stopping, or Restarting System Services

- 1 In the System Services page, select the service that you want to start, stop, or restart.
- 2 Click Action, then click Start, Stop, or Restart.

#### 7.4.2 Setting System Services to Automatic or Manual

- 1 On the System Services page, select the service that you want to make automatic or manual.
- 2 Click Options, then click Set as Automatic, or Set as Manual.

If you choose **Set as Automatic**, the SSH services will start automatically when you run the appliance.

If you choose **Set as Manual**, you need to start or stop the SSH services manually after you run the appliance.

## 7.5 Firewall

During the configuration a few ports on appliance are open. You can view the current firewall configuration from the ZENworks Reporting Appliance.

1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Firewall.

Port numbers are displayed with the current status.

If you have a firewall, you must allow the listed port numbers to ensure that you have a seamless experience with ZENworks Reporting Appliance. As a best practice, do not change any port numbers from the default ports.

## 7.6 Administrative Passwords

- 1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Administrative Passwords.
- 2 Specify the new passwords for the root and zenadmin administrators.

If you are changing the root password, you must first specify the current root password.

- **3** (Optional) Select or clear Allow root access to SSH. When this option is selected, the root user is able to SSH to the appliance. If this option is not selected, only the zenadmin user can SSH to the appliance.
- 4 Click OK.

## 7.7 Field Patch

The Field Patch page, enables you to manage field test patches for the ZENworks Reporting Appliance. You can install new patches that has fix for issues, view currently installed patches, and uninstalled patches.

- 1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Field Patch.
- 2 (Optional) Install a Downloaded Patch:
  - 2a Download the patch from the *Micro Focus Download* site on to your device.
  - 2b On the Field Test Patch page, click Browse to select the downloaded patch.
  - 2c Click Install.
- 3 (Optional) Manage Installed Patches:
  - **3a** Below the Manage Installed Patches, on the Patch Name column, select the patch that you want to uninstall.
  - 3b Click Uninstall Latest Patch.

### 7.8 Online Update

Online Update enables you to update the Appliance.

1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Online Update.

You can perform the following actions:

 Register: Enables you to register with Customer Center server or a Local Subscription Management Tool (SMT) server from where you can download software updates and install automatically to update the product.

To register online update service:

- 1. Click the Register tab.
- Choose the type of service Local SMT (Subscription Management Tool) or Novell Customer Center (NCC).

Based on the service type, specify the following:

#### Local SMT

- Hostname: The hostname of the server from where you want to download.
- SSL Cert URL (optional): The SSL certificate to communicate with the server.
- Namespace path (optional): The name space of the file or directory.

#### **Customer Center**

- Email: The email address to receive the updates on the appliance.
- Activation key: The activation key for the server base license.
- Allow data send: choose how you want to receive the data Hardware Profile or Optional information.
- 3. Click Register.

- Update Now: After registration, click Update Now to trigger downloaded updates.
- Schedule: After registration, you can configure type of updates to download and whether to automatically agree with the licenses.

To schedule online update:

- 1. Click the Schedule tab.
- 2. Select a schedule for download updates (Manual, Daily, Weekly, Monthly).
- View Info: Displays the list of installed and downloaded software updates.
- **Refresh:** Refreshes the status of updates on the Appliance.

## 7.9 Shutting Down and Restarting ZENworks Reporting Appliance

1 On the ZENworks Reporting Appliance home page, under Appliance Configuration, click Reboot or Shutdown.

This restarts or shuts down ZENworks Reporting Appliance.



The following sections provides solutions to the problems you might encounter while deploying and Configuring ZENworks Reporting Appliance:

#### java.lang.lllegalStateException: Form too large error message is displayed

- Source: ZENworks Reporting.
- Explanation: If the size of a file that is displayed in the Advanced Configuration tab exceeds the default value of 400000 Bytes (~ 400KB), the following error message is displayed:

java.lang.IllegalStateException:Form too large

- Action: Increase the form content size parameter in the start.ini file:
  - 1 Go to /opt/novell/jetty8
  - **2** Open the start.ini file.
  - **3** Search for the Dorg.eclipse.jetty.server.Request.maxFormContentSize parameter and increase the value.
  - **4** Stop the jetty server using the rcnovell-jetty stop command.
  - **5** Start the jetty server using the rcnovell-jetty start command.

#### **Changing ZENworks Reporting Session Time out**

- Source: ZENworks Reporting.
- Explanation: Default ZENworks Reporting session time out is set to 30 minutes.
  - Action: You can change ZENworks Reporting session time out by using the web.xml file.

To change the ZENworks Reporting session time out:

- 1. Backup the web.xml file.
  - For Windows: %ZRS\_HOME%\js\apachetomcat\webapps\jasperserver-pro\WEB-INF\web.xml
  - For linux: /opt/novell/zenworks-reporting/js/apachetomcat/webapps/jasperserver-pro/WEB-INF/web.xml
- 2. Open the web.xml file.
- 3. Go to <session-timeout>
- 4. Change the existing time out (30) to the required time out in <session-timeout>30</session-timeout>
- 5. Manually restart the ZENworks Reporting services.