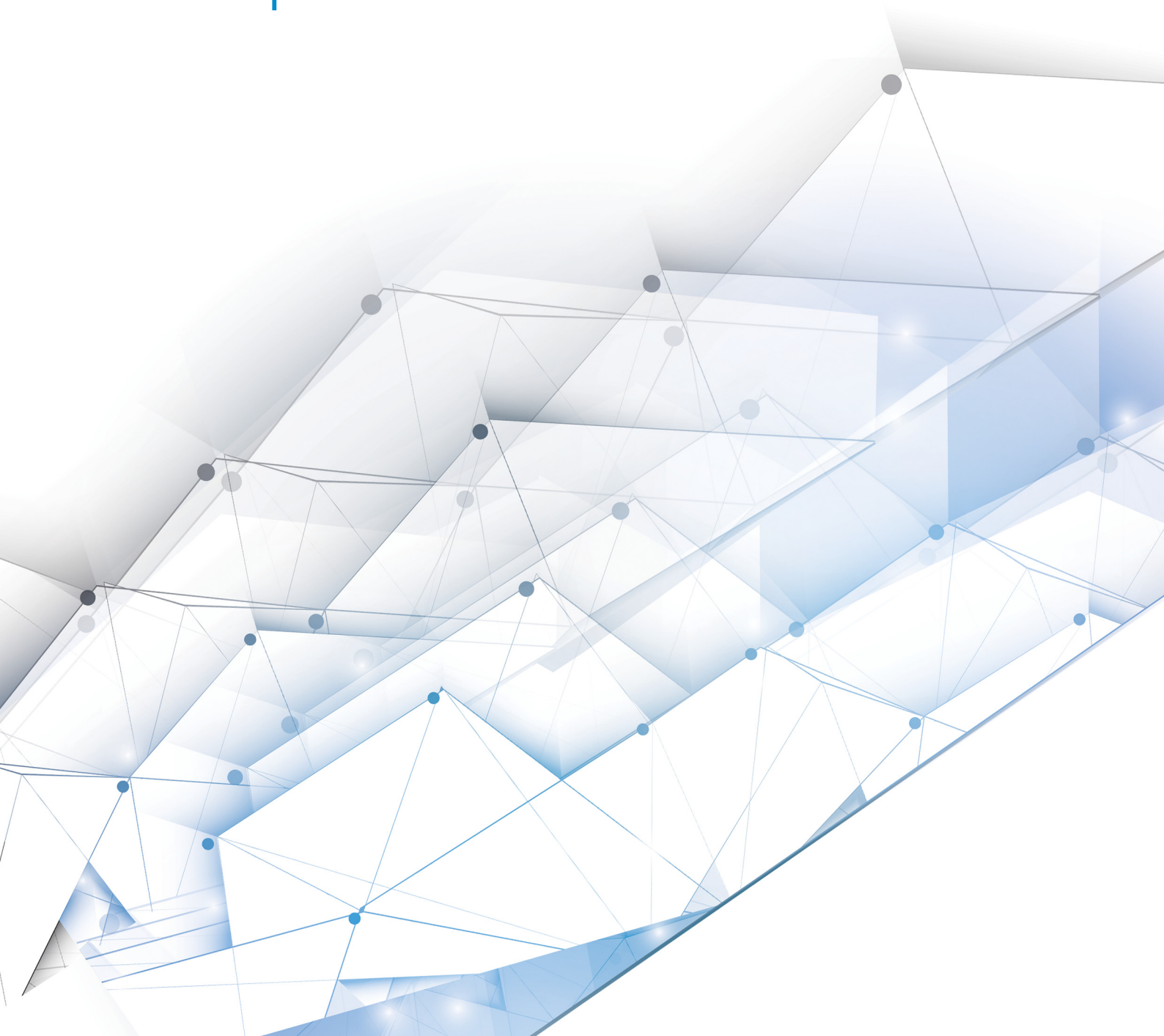
panagenda

ConnectionsExpert

Setup Guide



SETUP GUIDE

Contact

panagenda Austria
(Headquarters)
panagenda GmbH
Schreyvogelgasse 3/10
AT 1010 Vienna (Austria)
Phone: +43 1 89 012 89
Fax: +43 1 89 012 89 – 15

panagenda Germany
panagenda GmbH
Lahnstrasse 17
DE 64646 Heppenheim
(Germany)
Phone: +49 6252 67939 – 00
Fax: +49 6252 67939 – 16

panagenda USA
panagenda Inc.
60 State Street
Suite 700
Boston, MA 02109 (USA)
Phone: +1 (617) 855 5961
Fax: +1 (617) 488 2292

E-Mail Sales: sales@panagenda.com
E-Mail Support: support@panagenda.com
Web: www.panagenda.com

Table of Contents

SETUP GUIDE

Welcome to panagenda ConnectionsExpert!

This guide will help you to set up panagenda ConnectionsExpert in no time. If you have any comments or suggestions, please contact us at support@panagenda.com.

About ConnectionsExpert

ConnectionsExpert offers unique insights into your IBM Connections environment and provides vital information for many roles in your organization: Operative monitoring dashboards and performance analytics for administrators, as well as adoption and usage KPIs for social adoption experts and management.

ConnectionsExpert is a virtual appliance, which collects various statistical information from IBM Connections. **All data is stored on premises!**

System Requirements

IBM Connections

In order to run ConnectionsExpert properly, the following prerequisites must be met:

- IBM Connections 5.0 or 5.5
- IBM Connections Backend Database is based on DB2 or Oracle
- IBM Connections Metrics Application is available

Running Cognos is not a prerequisite. The Metrics application collects data in the background to the Metrics database. ConnectionsExpert processes the data from this database.

Host Software

panagenda ConnectionsExpert comes as a virtual appliance including its own operating system based on the popular Ubuntu Linux distribution. No operating system needs to be prepared for the installation on virtulization software side.

The virtual image can be deployed on VMWare Player, Workstation, Server, ESX, ESXi, vSphere and Microsoft Hyper-V as host system. The underlying hardware and OS need to have VT-x support enabled (in BIOS). This is mainly relevant in scenarios where Player or Workstation act as host system. Detailed information about operating system requirements can be found on the respective product page: www.vmware.com/products/ & www.microsoft.com/en-us/server-cloud/solutions/virtualization.aspx

Virtual Hardware

Minimum hardware requirements for production environment:

- a modern CPU with 2-4 processor cores
- 4 GB - 16 GB of RAM available to the virtual appliance
- min. 40 GB of free disk space for virtual appliance

If additional disk space is required for long term storage, the disk can be enlarged (see “Enlarging ConnectionsExpert Data Disk” on page 33). It is not an option to add additional disks to the system in order to provide more disk space.

Access and Permissions

User Accounts:

During the configuration of ConnectionsExpert's Bridgehead application, a WebSphere administrator account must be supplied (see "Configure the adminclient.props settings:" on page 16). It will be used to perform WebSphere internal operations.

In order to perform user simulations and connect to the Bridgehead application, an active Connections account (LDAP User) is required. Creating a dedicated account is recommended (see "Bridgehead Connector - User Information" on page 26).

Network (Firewall/Ports):

Connections to and from the appliance need to be allowed for the following services:

Outbound (originating in virtual appliance):

- **HTTP/HTTPS** to WebSphere servers for data collection (TCP 80/443)

Inbound (accessing virtual appliance):

- **HTTP/HTTPS** for configuration and reports (TCP 80/443)
- **SSH** for system configuration and application tuning (TCP 22)
- **VNC** for system configuration (TCP 5901)
- Optional: PostgreSQL for data warehouse access where enabled (TCP 5432)

It is recommended that the ConnectionsExpert application owner has access to the console of the virtual machine.
Internet access for the appliance is not mandatory, but it is recommended to grant at least proxy access to panagenda.com and ubuntu.com for security and application updates.

Client System Requirements

Hardware, Operating System and Software Requirements:

The panagenda ConnectionsExpert web interface is based on HTML5 and therefore accessible on any **HTML5 capable device**.

- We recommend the following browsers in latest **64-bit** versions: **Chrome** and **Firefox**

Browser Security and Network Access:

No special web browser security settings are required to run the panagenda ConnectionsExpert web interface.

To access the ConnectionsExpert web interface, you need to have access to the panagenda ConnectionsExpert appliance via TCP/IP, Port 80 (HTTP) and Port 443 (HTTPS).

ConnectionsExpert Appliance Details

panagenda ConnectionsExpert is developed as a virtual appliance:

The panagenda ConnectionsExpert Virtual Image

- **Ubuntu**

  12.04 LTS (Precise Pangolin)
  panagenda ConnectionsExpert is based on the very popular Ubuntu Linux distribution, which is a fork of the Debian projekt's codebase. Ubuntu 12.04 LTS was chosen because of its stability and its long time support option (LTS = Long Time Support). It uses a current kernel version (3.2.x) for virtual systems. Only security patches are configured for automatic update via the Debian update framework/APT

- **Tomcat 8 Application Server**
- **NodeJS 6 Application Server**
- **Nginx 1.10 Reverse Proxy Server**
- **Java 8 Virtual Machine**
- **PostGreSQL 9.5 Relational Database Server**

GETTING STARTED

Setup

In the downloads section of our website (www.panagenda.com/downloads), the latest versions of the following files are available:

- **panagenda_ConnectionsExpert.ova** – image file directly deployable via the VMWare vSphere client. It holds the ConnectionsExpert virtual appliance in open virtualization format (OVF)
- **panagenda_ConnectionsExpert.exe** – self-extracting 7z archive which contains the ConnectionsExpert virtual appliance in VMWare Workstation format
- **panagenda_ConnectionsExpert_HyperV.exe** – self-extracting 7z archive which contains the ConnectionsExpert virtual appliance in Microsoft Hyper-V format
- **Connections Expert Setup Guide** – extended installation and configuration guide.

We recommend running ConnectionsExpert production systems in a VMWare vSphere/ESX enterprise environment. Additional options are available with images for Microsoft Hyper-V and VMWare Player/Workstation. Especially the latter is mainly targeted at temporary evaluation environments and are not supported for production use.

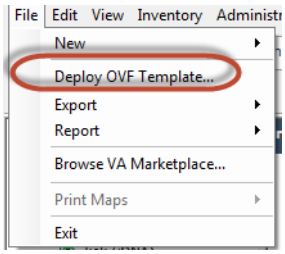
Please note that a license file is required to run ConnectionsExpert. This also applies to the free Basic edition. Please contact sales@panagenda.com to request a license.

Place the license file ConnectionsExpert.lic in a folder on your local hard drive. This file will be uploaded to the virtual appliance in a later step using the panagenda ConnectionsExpert web interface.

Starting up on the virtualization software

Recommended: VMWare vSphere/ESX via OVA

Open VMWare ESX, ESXi or vSphere and select:



The Deploy OVF Template dialog will open:

1. **Source:** Specify the location where you saved the ConnectionsExpert OVA file on your hard drive – for example: *C:/Temp/panagena_ConnectionsExpert.ova*

2. **OVF Template Details:** In this step you can inform yourself about the ConnectionsExpert version you are about to deploy. When you are done, just click on Next

3. **Name and Location:** Is the next relevant step for deploying ConnectionsExpert. We recommend to name this template "**panagenda ConnectionsExpert**"

4. **Storage:** Then you have to select a destination storage for the virtual machine files.

5. **Disk Format:** In this step, please select the format you want to store the virtual disks. We recommend to choose "Thick Provision Eager Zeroed"

6. **Network Mapping:** Then select the network the deployed ConnectionsExpert template should use.

7. **Ready to Complete:** In the final step you are shown the options you set up. Click on Finish if you are satisfied with you setting to start the deployment task.

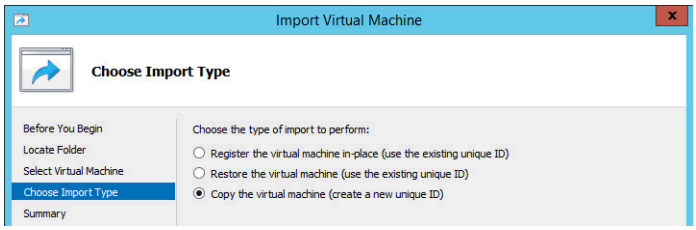
Alternative: Microsoft Hyper-V

- Extract the file **panagenda_ConnectionsExpert_HyperV.exe**

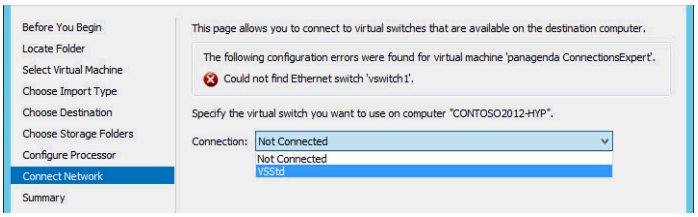
- Start Hyper-V Manager

- Right-click on your server and select "Import Virtual Machine" from the context menu

- Click **Next** on "Before you Begin" screen
- Select the folder that contains the extracted files and click **Next**
- Select the ConnectionsExpert image
- Select "Copy the virtual machine (create a new unique ID)"



- Click **Next** in the "Choose Destination" screen, unless you want to set the folders individually
- Select the folder where you want to store the virtual hard disk
- Click **Next** int the "Configure Processor" step – please don't change the processor settings
- Specify a network connection



- Select **Finish** on the summary screen to start the copy

Alternative: VMWare Workstation/Player via VMX

- Extract the file **panagenda_ConnectionsExpert.exe**
- Start VMWare Player or VMWare Server
- Open Virtual Machine
  - Navigate to the folder where the files from the ConnectionsExpert EXE are extracted
- Select the ConnectionsExpert VMX file

If you are prompted to update the VMWare Tools during appliance update, decline the request. Appropriate VMWare Tools are already installed on the panagenda ConnectionsExpert appliance.

Alternative: VMWare vSphere/ESX via VMX and Converter

After extracting the file **panagenda_ConnectionsExpert.exe**, a VMWare Workstation type virtual machine is available (ConnectionsExpert VMX file). To use this machine on a VMWare ESX Server, a free tool from VMWare named vCenter Converter Standalone (downloads.vmware.com) can be used to convert and upload it to your VMWare environment. Please see VMWare product documentation (www.vmware.com/support/pubs/converter_pubs.html) on detailed installation and usage instructions.

Converter:

To convert and install panagenda ConnectionsExpert, please follow these steps:

- Start converter
- Select **convert machine**
  - Source Type: VMWare Workstation virtual machine
  - Navigate to the folder, to where the files from panagenda_ConnectionsExpert.exe are extracted
  - Select the ConnectionsExpert VMX file
  - Select **Next**
  - Destination Type: VMWare Infrastructure virtual machine
  - Enter your VMWare ESX Server connection details and credentials
  - Select **Next**
  - Host/Resource: No changes required
  - Select **Next**
  - Options: No changes recommended for Trial Version
  - Select **Finish** to start Upload

- Depending on your network speed the upload can take several minutes
- After the Upload is finished, start your VMWare server management tool and run the newly created virtual machine
- The first few steps of setting up the system will require access to the virtual machine console

Starting the Virtual Appliance

Welcome Screen and IP Address

After starting up the appliance for the first time, you should be presented with a panagenda ConnectionsExpert welcome screen. If your network has a public DHCP server available, the system might already have acquired an IP address and will display the URL. **Use the shown IP address (interface URL) in your web browser to connect to the panagenda ConnectionsExpert web interface.** If your network does not support DHCP or the panagenda ConnectionsExpert appliance did not acquire any IP address, you have to configure the panangenda ConnectionsExpert appliance network settings (see "Network Settings:" on page 14).

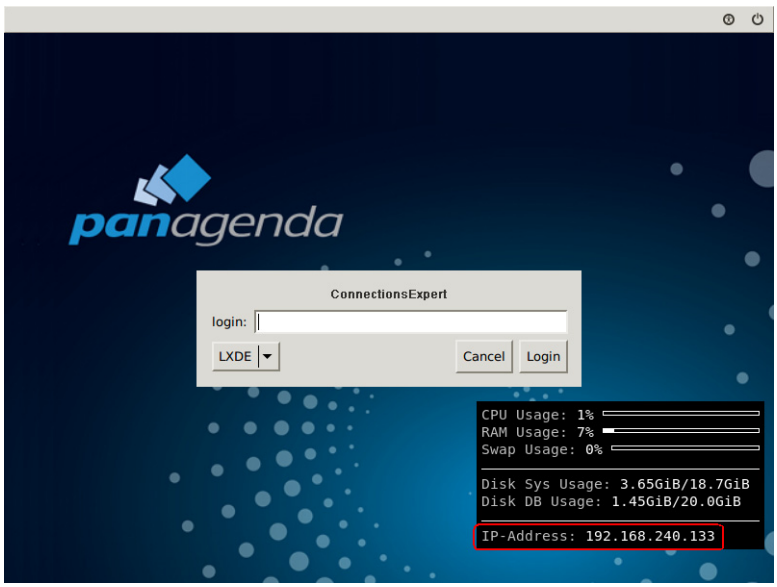


Figure 1: Welcome Screen

Appliance Login

ConnectionsExpert provides a graphical user interface in order to configure operating system level settings like network, time and time zone settings.

Default login information:

- user "config" with password "config"

The Appliance Environment

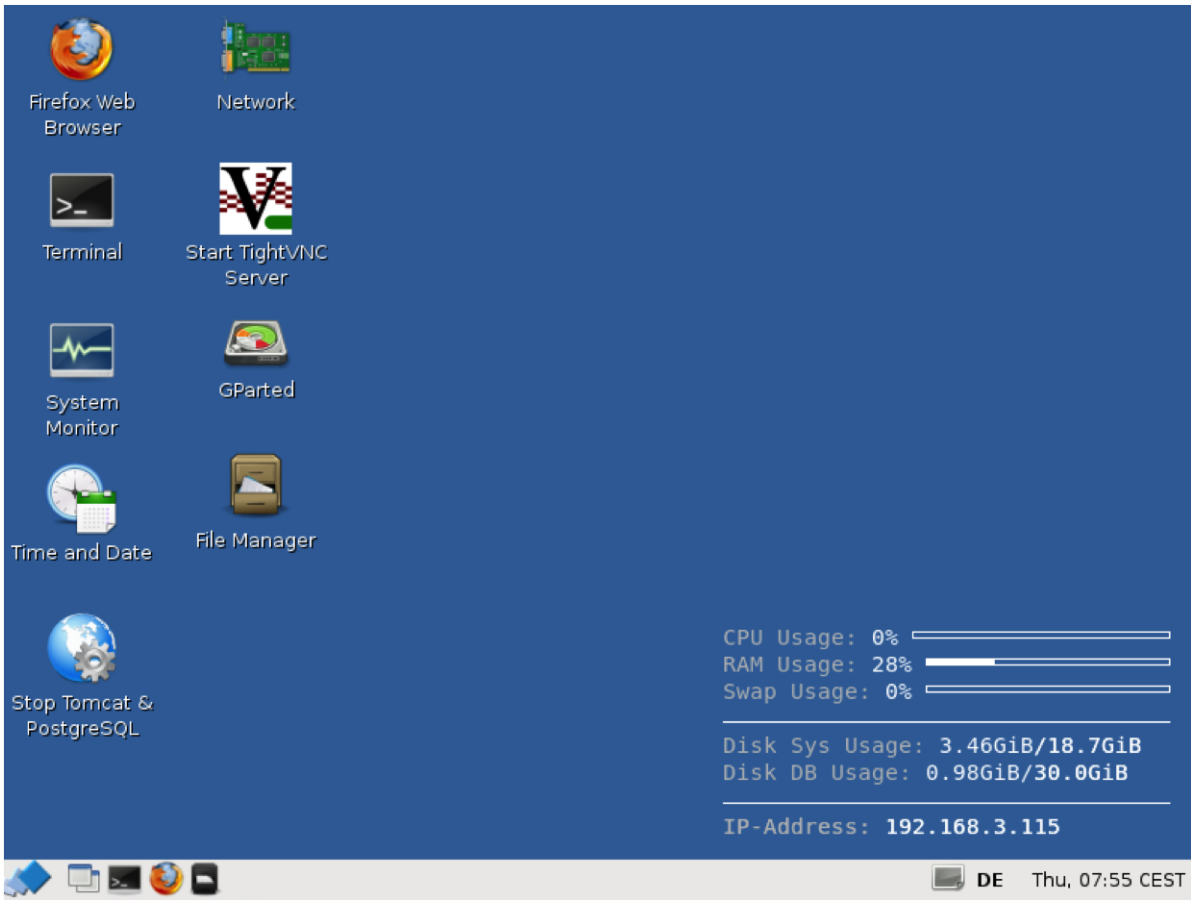


Figure 2: ConnectionsExpert Desktop

To check an established internet connection, a **web browser** (Mozilla Firefox) is available on the panagenda ConnectionsExpert appliance.

You can use the **terminal window** to check if your TCP/IP connection is established, using Linux *ping* and *ifconfig* command. For more information about *ping* and *ifconfig* commands, type *man ping* or *man ifconfig* in the terminal console window.

panagenda ConnectionsExpert log files can be found on the default Tomcat log file location (/opt/tomcat/logs). The main log file (idna.log) holds essential information about panagenda ConnectionsExpert runtime behavior. Use the **file manager** to navigate to these log files.

To check the panagenda ConnectionsExpert appliances system behavior, you can use the installed **system monitor**.

Network Settings:

Click the **Network** icon on the desktop to configure host name, IP address and DNS. When changing the host name (default is "ConnectionsExpert") on the "General" tab, please make sure to adapt the host alias properties for 127.0.1.1 on the "Hosts" tab as well. It is recommended that both host name and full qualified domain name are entered here.

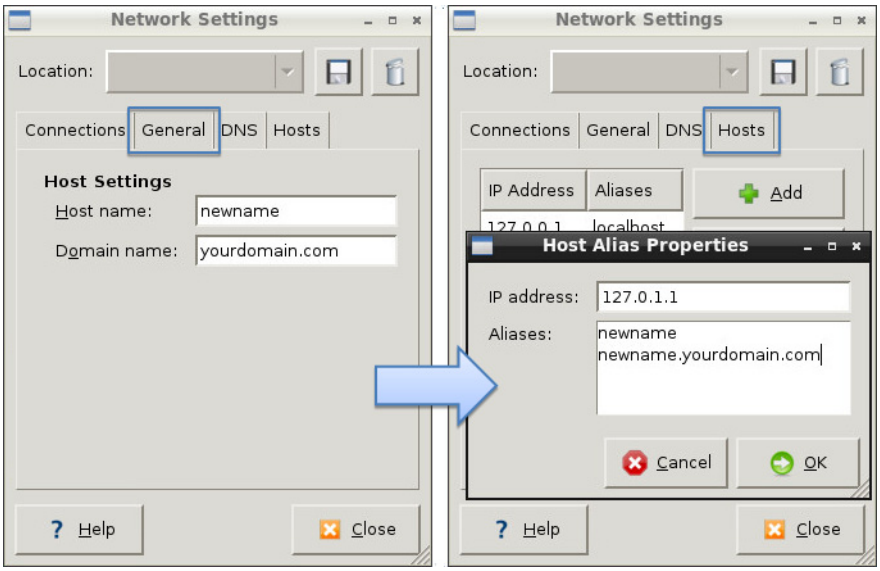


Figure 3: Network Settings

The virtual appliance MUST be able to resolve its own host name. Please verify that by opening a terminal window (click "Terminal" on the desktop) and using the ping command. It is recommend that both host/common name as well full qualified domain name are pingable. See "Network (Firewall/Ports):" on page 6 for incoming and outgoing network access requirements.

Time Zone Settings:

Please check the time zone settings of the appliance, use the **Time and Date** shortcut to adjust.

It is very important to adjust the appliance's time zone. Please reboot the appliance after changing the date/time settings as the web server and database system require a clean start with the new configuration.

Bridgehead Installation

The Bridgehead is an interface application for WebSphere that transfers IBM Connections statistics directly to ConnectionsExpert.

Follow these steps to deploy the Bridgehead application on your WebSphere server.

In the Bridgehead installation described here, the EAR will be installed in the AppsCluster, so all scopes are set to AppsCluster. If you want to deploy the EAR to a different Cluster, please adjust the scope.

1 Download and copy Files

In the ConnectionsExpert web interface, navigate to the Configuration view by clicking on the cogwheel icon (top-right corner). In the Configuration view you can download the **ConnectionsExpert_Bridgehead.zip**. This archive includes EAR and configuration files for the installation of the so called Bridgehead:

- *bridgehead.ear*
- *pbh/*

  - adminclient.props

  - jyscripts

  - jython-standalone-2.5.3.jar

  - queries

Please copy the folder “pbh” into the Connections customization directory.

2 Configure the **adminclient.props** settings:

```
host=<dmgr_fqdn> (default: localhost)
port=<dmgr_soap_port> (default: 8879)
type=SOAP
securityEnabled=true
username=<username>
password=<password>
autoAcceptSignerForThisConnectionOnly=true
```

localhost only works in non-clustered environments. Please use the hostname (FQDN) in clustered environments.

Enter your *username* and *password* and configure the other settings according to your WebSphere environment.

You need to add a WebSphere Administrator Account here, no special Connections access roles are needed.

So you can use an already existing account (local or LDAP), or you create a local WebSphere Administrator Account.

Create a local user **Users and Groups > Manage Users > Add...** and add this user to **Users and Groups > Administrative** user roles:

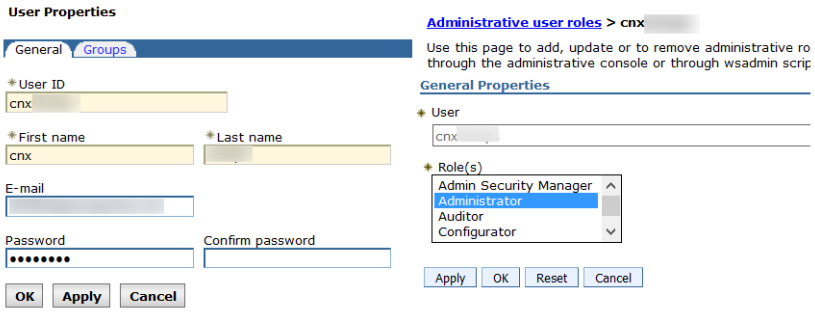


Figure 4: User Roles

Optional: To encrypt the password in the **adminclient.props** you can use the following command:

- Linux:
  `/opt/IBM/WebSphere/AppServer/bin/PropFilePasswordEncoder.<sh|bat> /<path_to_pbh_dir>/adminclient.props password`
- Windows:
  `<customer-specific>\WebSphere\AppServer\bin\PropFilePasswordEncoder.<sh|bat> \<path_to_pbh_dir>\adminclient.props password`

3 Create WebSphere Cluster

In the WebSphere Integrated Solution Console (ICS) go to **Clusters** > **WebSphere Application Clusters**. Create a cluster with one or optionally more nodes.

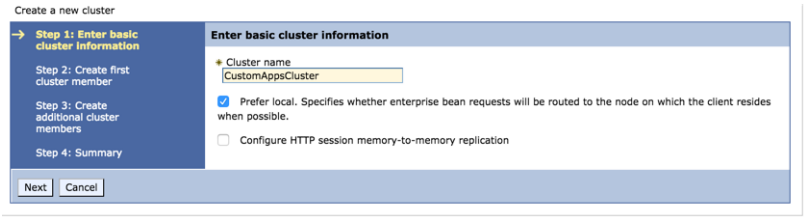


Figure 5: Create Cluster 1

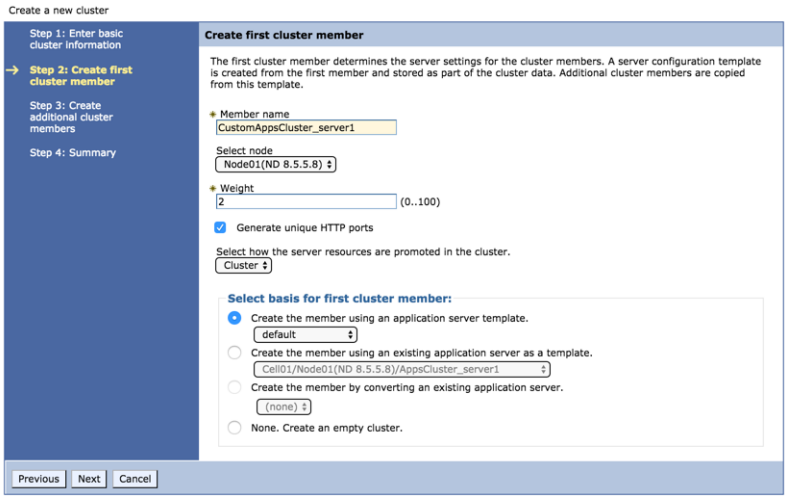


Figure 6: Create Cluster 2

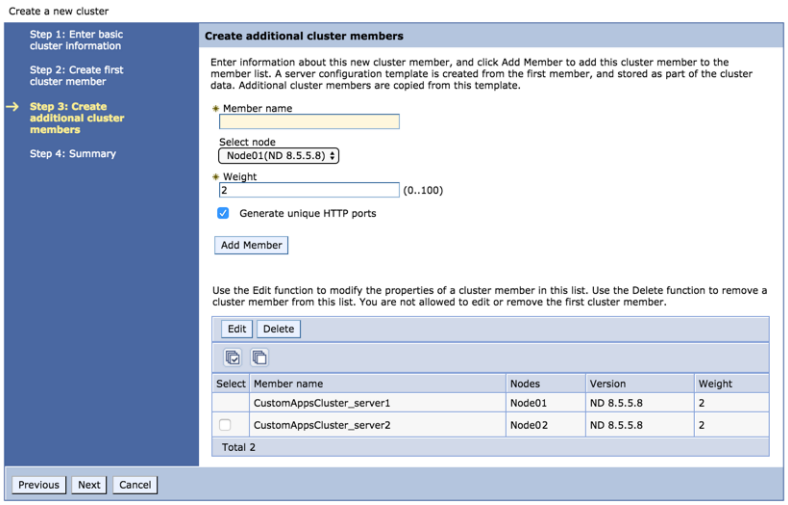


Figure 7: Create Cluster 3

In clustered Connections environments you can select more than one node to install the panagenda Bridgehead on.

After creating the application servers, please change the JVM maximum heapsize setting to a value of 2048.

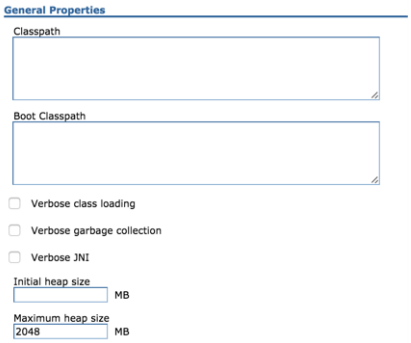


Figure 8: WebSphere Cluster Heapsize

4 Create Shared Library

Go to **Environment** > **Shared Libraries**, select the scope on which your Bridgehead should run (CustomAppsCluster) and click on the **New...** button:

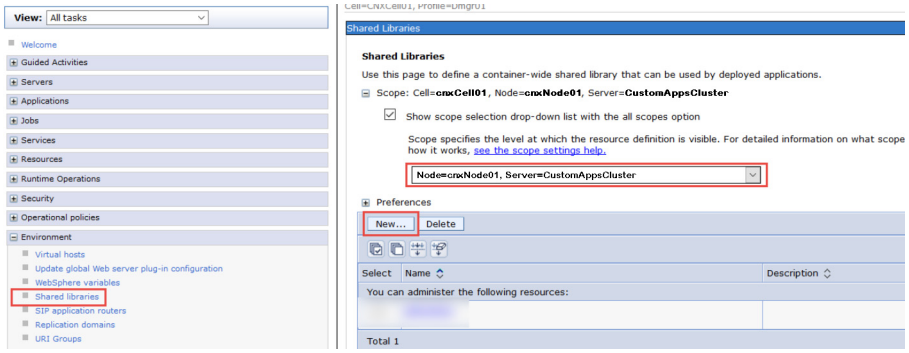


Figure 9: Create Shared Library 1

Enter "pbhJython" in the **Name** field and use a **Classpath** based on the Connections Customization directory, such as `${CONNECTIONS_CUSTOMIZATION_PATH}/pbh/jython-standalone-2.5.3.jar` *(WebSphere Variable: CONNECTIONS_CUSTOMIZATION_PATH.)*

Click on **OK** when you are done:

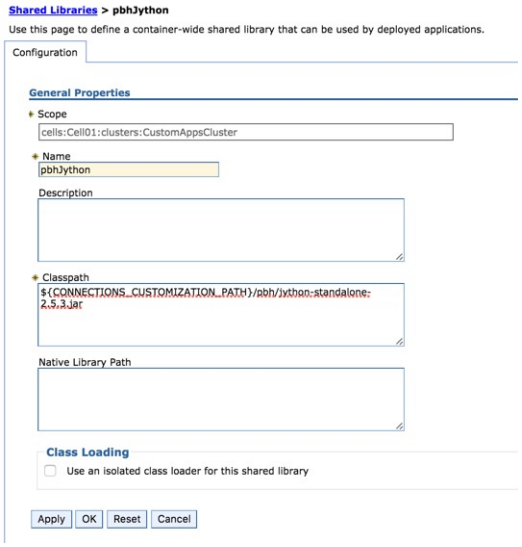


Figure 10: Create Shared Library 2

5 Create URL Resources

In the ICS go to **Resources** > **URL** select the scope on which your Bridgehead should run (CustomAppsCluster) from URLs and click on the **New...** button. Use as specification like `file:///${CONNECTIONS_CUSTOMIZATION_PATH}/pbh/...`

panagenda Bridgehead Admin Client Properties

Name:
`panagenda Bridgehead Admin Client Properties`
JNDI Name:
`url/bridgeheadAdminClientProps`
Specification:
`file:///${CONNECTIONS_CUSTOMIZATION_PATH}/pbh/adminclient.props`

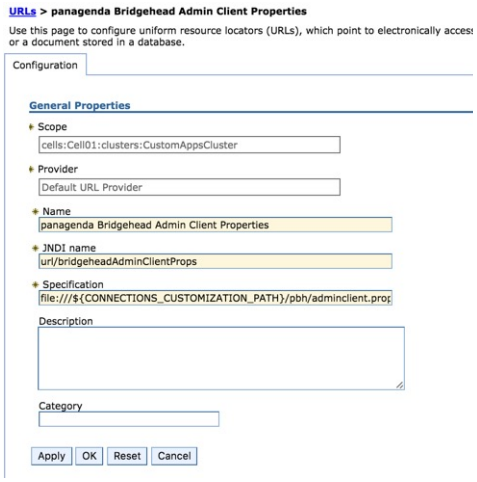


Figure 11: Create URL Resources - Example

panagenda Bridgehead SQL Queries

Name:
`panagenda Bridgehead SQL Queries`
JNDI Name:
`url/bridgeheadQueries`
Specification:
`file:///${CONNECTIONS_CUSTOMIZATION_PATH}/pbh/queries`

panagenda Bridgehead jyscripts

Name:
`panagenda Bridgehead jyscripts`
JNDI Name:
`url/bridgeheadJyScripts`
Specification:
`file:///${CONNECTIONS_CUSTOMIZATION_PATH}/pbh/jyscripts`

6 Deploy EAR

In the ICS go to **Applications** > **Application Types** > **WebSphere Enterprise Applications**, click the **Install** button and select the path to the file **bridgehead.ear:**

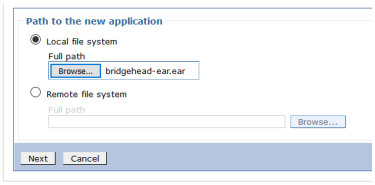


Figure 12: Deploy EAR 1

Select **Fast Path** and click *Next*.

Just click on *Next* in Step 1 (no need to adjust/change anything here).

In Step 2, select the newly created cluster and a web server.

For licensing reasons, the Bridgehead application has to be accessible via the Connections HTTP server. If this is not possible in your environment, please contact support@panagenda.com.

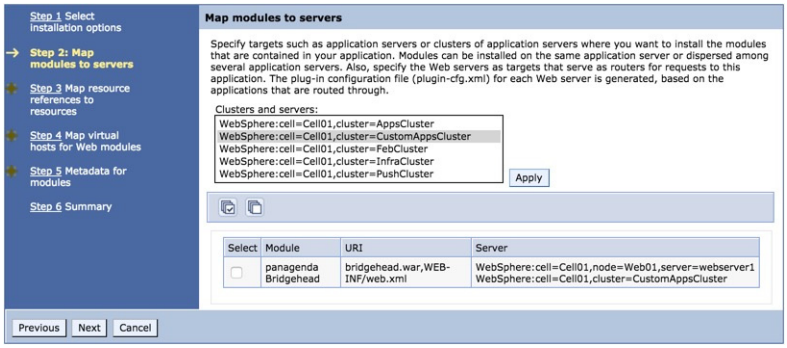


Figure 13: Deploy EAR 2

In the next step, map JNDI names for URLs and all DataSources:

Select	Module	Bean	URI	Resource Reference	Target Resource JNDI Name
☐	panagenda Bridgehead		bridgehead.war,WEB-INF/web.xml	url/bridgeheadAdminClientProps	url/bridgeheadAdminClientPro Browse...
☐	panagenda Bridgehead		bridgehead.war,WEB-INF/web.xml	url/bridgeheadQueries	url/bridgeheadQueries Browse...
☐	panagenda Bridgehead		bridgehead.war,WEB-INF/web.xml	url/bridgeheadJyScripts	url/bridgeheadJyScripts Browse...

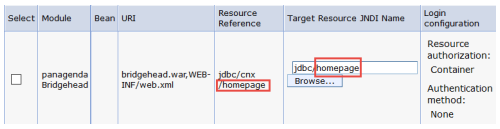


Figure 14: Deploy EAR 3

Continue the steps and click on **Finish**.

Wait until you see the message "Application panagenda Bridgehead installed successfully" and click on **Save**:

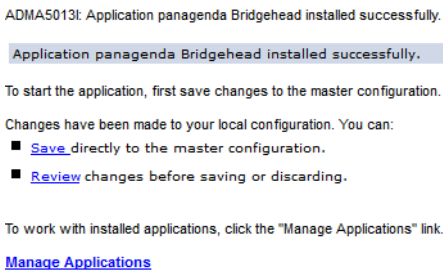


Figure 15: Bridgehead Installed Successfully

7 Map Shared Library Reference

In the ICS go to **Applications** > **Application Types** > **WebSphere Enterprise Applications**, select **panagenda Bridgehead** and set **Shared library references** to "pbhJython"

Select the second entry and click **Reference shared libraries**

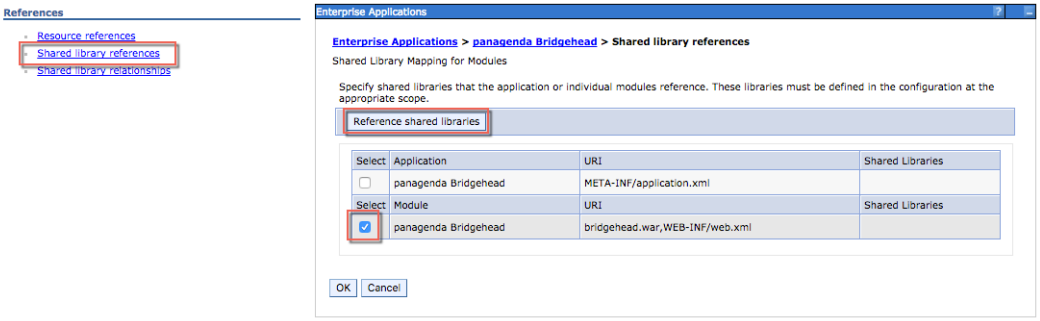


Figure 16: Map Shared Library Reference 1

Add "pbhJython" to the right box and click **OK**:

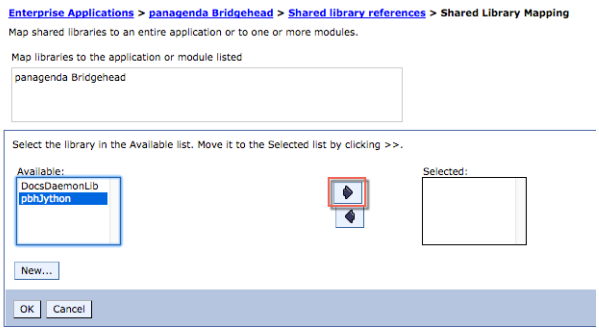


Figure 17: Map Shared Library Reference 2

Your shared library reference should look like on this screenshot:

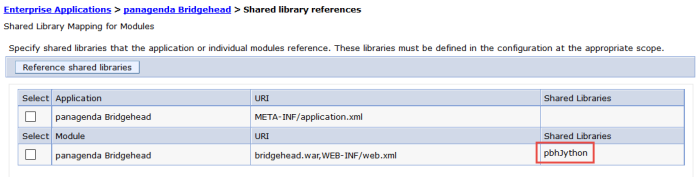


Figure 18: Map Shared Library Reference 3

Close with **OK** and save to master configuration.

8 Change Security Role

Please assign the **pbh_admin** role to the user which you use on the ConnectionsExpert Configuration page (see "User Accounts:" on page 6):

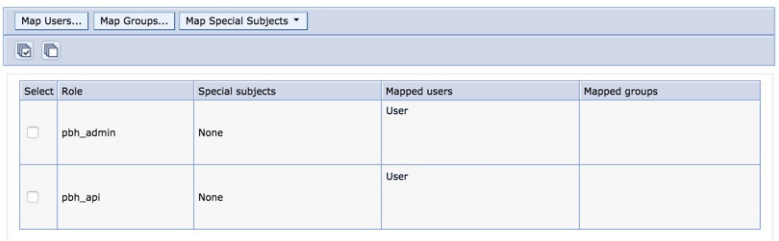


Figure 19: Security Roles

9 Restart Cluster

Please restart the newly created Cluster or Application Server (which is used for the Bridgehead application) in order to get everything initialized.

10 Populate Web Server Plugins

For licensing reasons, the Bridgehead application has to be accessible via the Connections HTTP server. If this is not possible in your environment, please contact support@panagenda.com.

In the ICS go to **Servers** > **Server Types** > **Web servers**

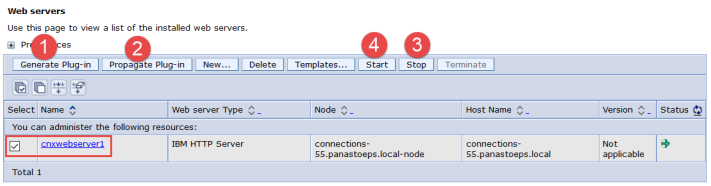


Figure 20: Populate Web Server Plugins

If you have a firewall between your HTTP and application server, please note that the panagenda Bridgehead ports need to be opened. Otherwise your HTTP server will not be able to access the Bridgehead cluster.

11 OPTIONAL: Adjust SPNEGO Configuration

If SPNEGO is used, the panagenda Bridghead has to be added to its exceptions!

In the ICS go to **Security** > **Global Security** > **Web and Sip Security** > **SPNEGO Web Authentication**:

- Select your SPNEGO filter

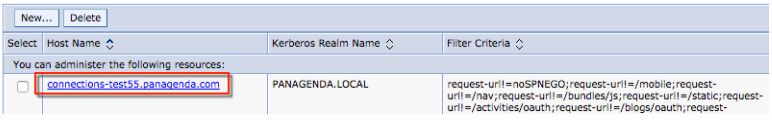


Figure 21: SPNEGO Configuration Adjustment 1

- Add
  `;request-url!=/bridgehead`
  to the end of the **Filter criteria**, as shown on the screenshot:

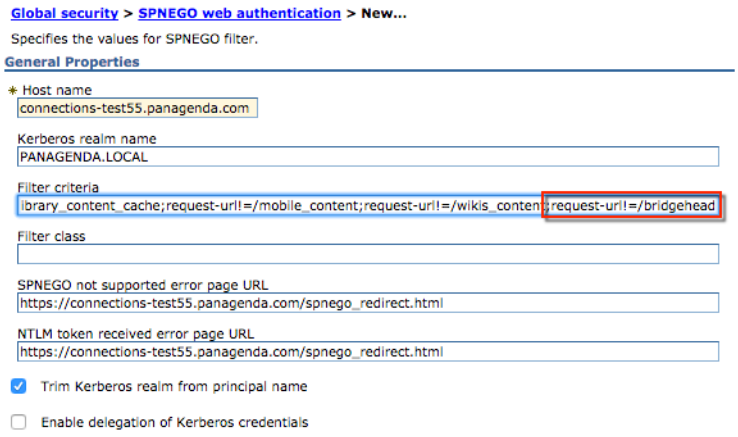


Figure 22: SPNEGO Configuration Adjustment 2

- Confirm by clicking **OK**

- Store your adjustments with **Save**:

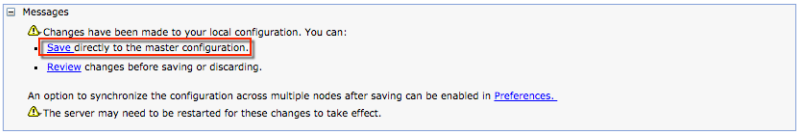


Figure 23: SPNEGO Configuration Adjustment 3

- If **Dynamically update SPNEGO** is deactivated, you have restart your entire environment

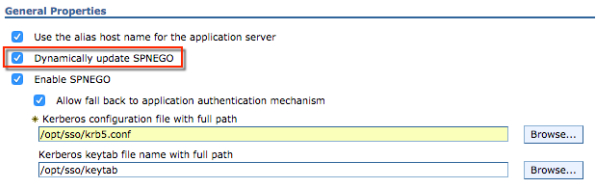


Figure 24: SPNEGO Configuration Adjustment 4

12 Check Bridgehead Access and Version

Open **https://***<your connections url>***/bridgehead**. Login with the user you assigned the **pbh_admin** role to, see step 8 “Change Security Role” on page 22.

You should see a line similar to the following:

```
{“status”:”OK”,”ts”:1476867238257,”version”:”3.0.0”}
```

If the status is OK (“status”:”OK”), the Bridgehead installation has been successful.

Using the Web Interface

Please enter **https://***<FQDN or IP>* in your browser to connect to the panagenda ConnectionsExpert web interface. For further information about your ConnectionsExpert appliance's IP address, please refer to "Welcome Screen and IP Address" on page 12 and for further information about its hostname (FQDN), please refer to "Network Settings:" on page 14.

panagenda ConnectionsExpert uses HTTPS for secure communication between its appliance and its web interface, so you have to accept the security certificate, to continue.

Login

By default, a user with administrative credentials is available to access the panagenda ConnectionsExpert web interface.

Default login information:

user "config" with password "config"

System Configuration and License File Upload

When you start ConnectionsExpert for the first time, an install wizard will guide you through the initial system configuration. Later on, you can always navigate to the System Configuration view by clicking on the **cogwheel icon** (top-right corner).

1 License File Upload

To upload the panagenda ConnectionsExpert license file **ConnectionsExpert.lic**, just drag and drop it to the Upload area in the Configuration view. Clicking this area opens an upload dialog. After the upload, your license information will be displayed.

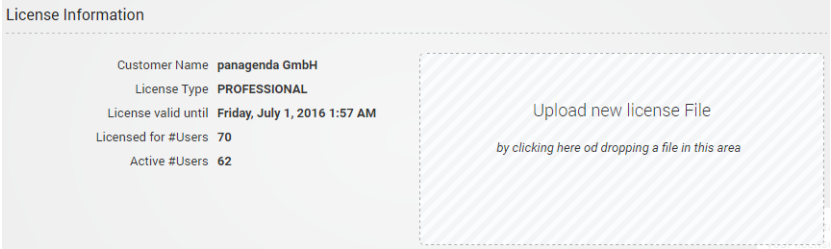


Figure 25: Install Wizard: License File Upload

2 Bridgehead Connector - Endpoint

Bridgehead installation has to be completed (see "Bridgehead Installation" on page 15) before you perform this final configuration step.

The host name of your IBM Connections server will be filled out automatically based on your license information and cannot be edited. If needs to be changed, please contact sales@panagenda.com.

Please enter the **Bridgehead Application** path according to your installation:

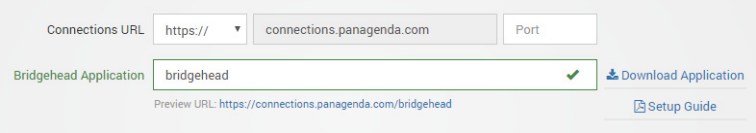


Figure 26: Install Wizard: Bridgehead Connector - Endpoint

3 Bridgehead Connector - User Information

This user must be able to use Connections (LDAP user), have an active profile and needs roles in Bridgehead (pbh_admin or pbh_api, see "Bridgehead Installation" on page 15).

Please verify the entered settings by clicking the **Test Settings** button:

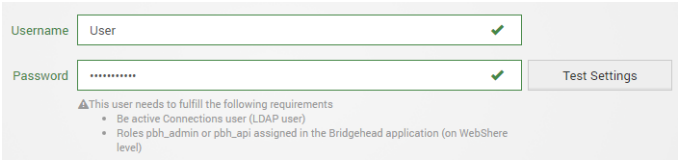


Figure 27: Install Wizard: Bridgehead Connector - User

4 Start Data Collection

By clicking the **Update Configuration** button the configuration is stored. After around two minutes ConnectionsExpert will have collected the first batch of data from IBM Connections:

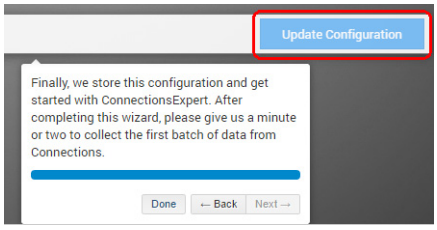


Figure 28: Install Wizard: Final Step

ADDITIONAL INFORMATION

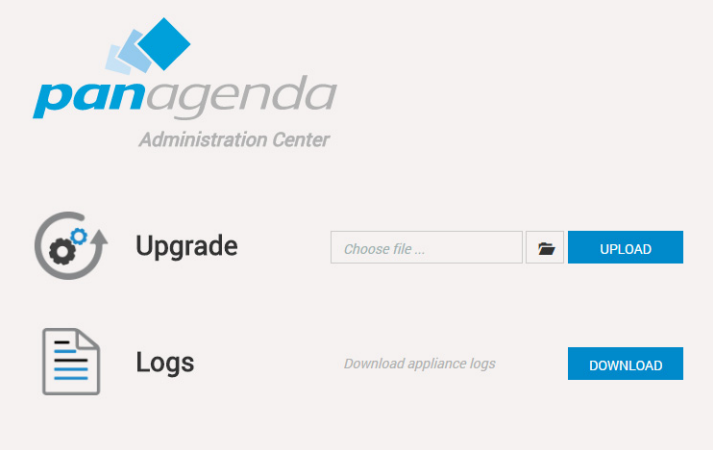
Appliance Upgrade

1. An ConnectionsExpert upgrade package is nedded to perform an upgrade. Please contact support@panagenda.com in order to obtain the respective URL and login credentials.

2. Log in to ConnectionsExpert, click on the cogwheel icon (top-right corner) and select ***Install New Version...***

3. Please click in the folder icon to select the ConnectionsExpert upgrade package *ce-complete.debz* and

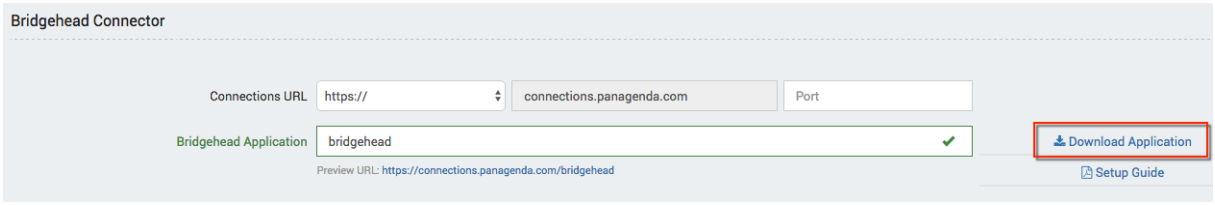
4. Click on the ***Upload*** button.



A message will appear that the upload is in progress or you will get an error message if something went wrong. When the installation is done, ConnectionsExpert will restart automatically.

Bridgehead Upgrade

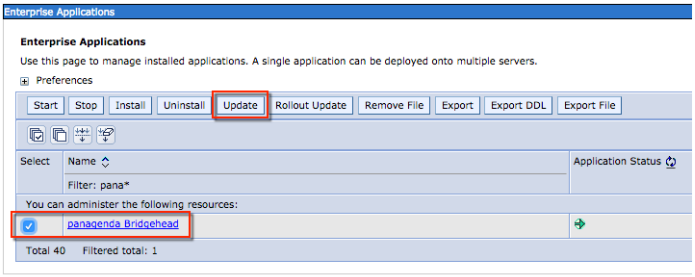
After the appliance upgrade (see "Appliance Upgrade" on page 27) you can download the current Bridgehead application from the ConnectionsExpert **System Configuration**:



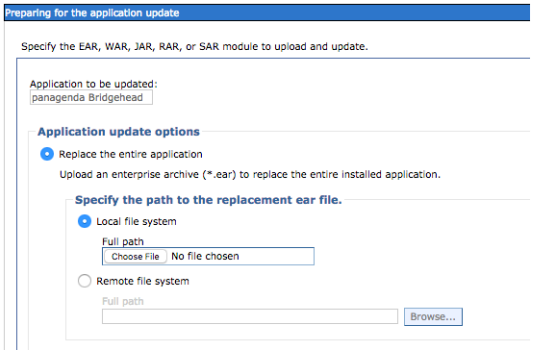
Please perform the following steps upgrade the panagenda Bridgehead application:

1. In the **ICS** go to **Applications** > **Application Types** > **WebSphere Enterprise Applications**

2. Select **panagenda Bridgehead** and click on **Update**:

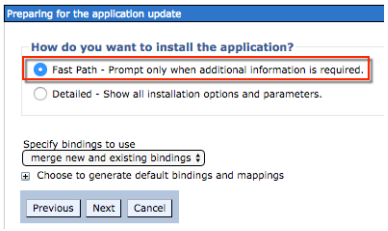


3. Select **Replace the entire application**. Here you can either upload the file (**Local file system**) or refer to a path on a application server (**Remote file system**):



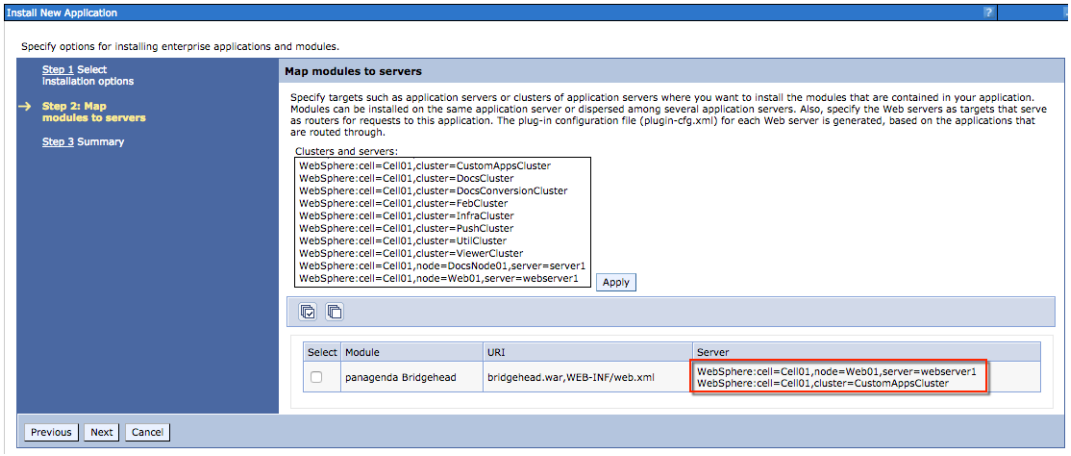
Click **Next**

4 Select **Fast Path** and click **Next**



5 Click **Next**

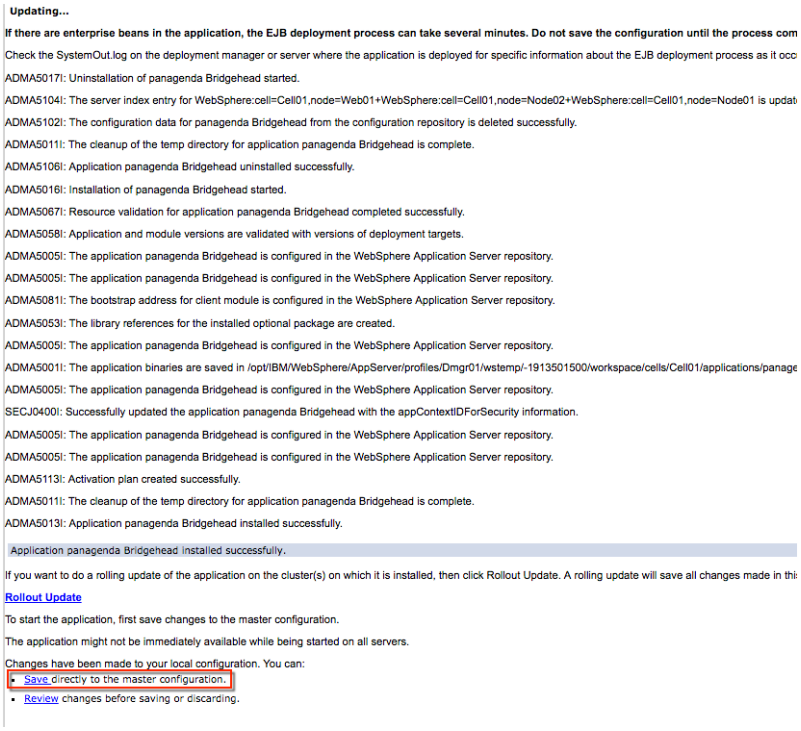
6 Please check the mapping in Step 2: Your applications should run on at least one application server or cluster. For licensing reasons, the Bridgehead application has to be accessible via the Connections HTTP server:



Click **Next**

7 Click **Finish**

8 Select **Save** to store the changes:



9 Please restart the application cluster or server

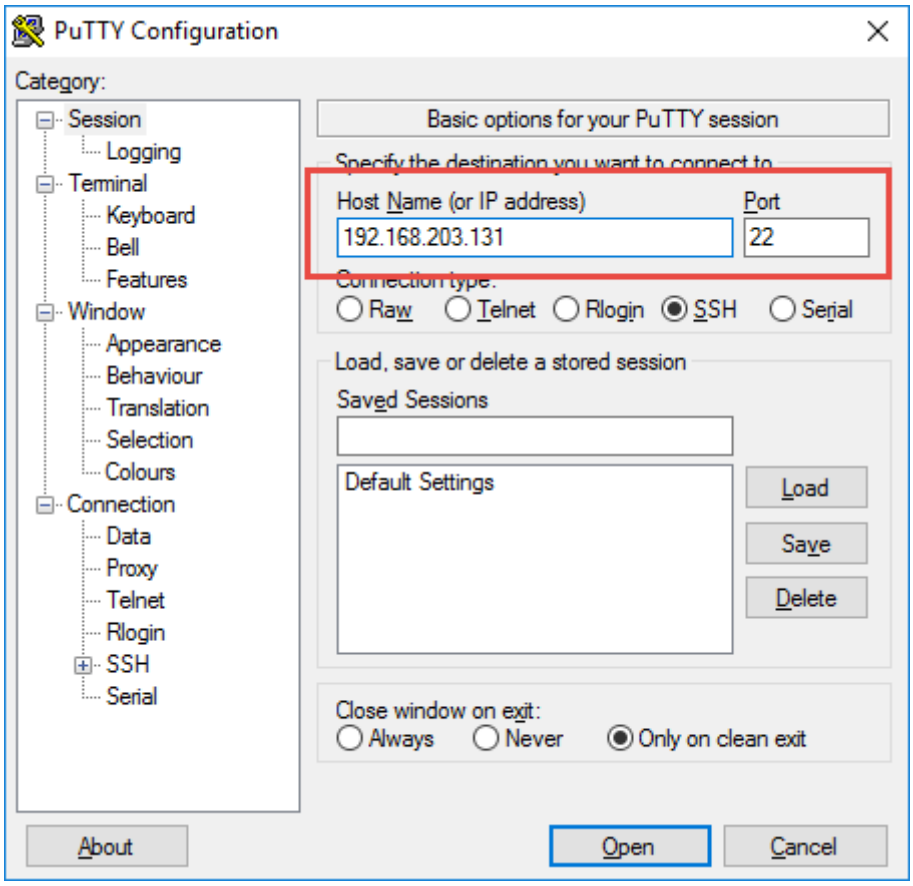
Download Log Files

1. Log in to ConnectionsExpert, click on the cogwheel icon (top-right corner) and select ***Download Logs...***
2. Please click the button Download next to "Download Appliance Logs"
3. Save the file to your computer
4. Please send this file with every support inquiry. These logs will greatly improve speed and quality of processing support tickets.

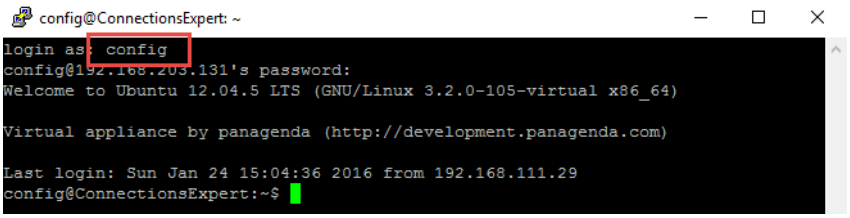
Remote Appliance Access (VNC)

In order to enable access to the Linux GUI, a VNC server is pre-installed on the ConnectionsExpert applicance. To start the VNC server, please follow these steps:

1 Start a SSH connection to the ConnectionsExpert appliance. For this, a tool such as PuTTY is needed (http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html):



2 Log into the appliance with the user **config**:



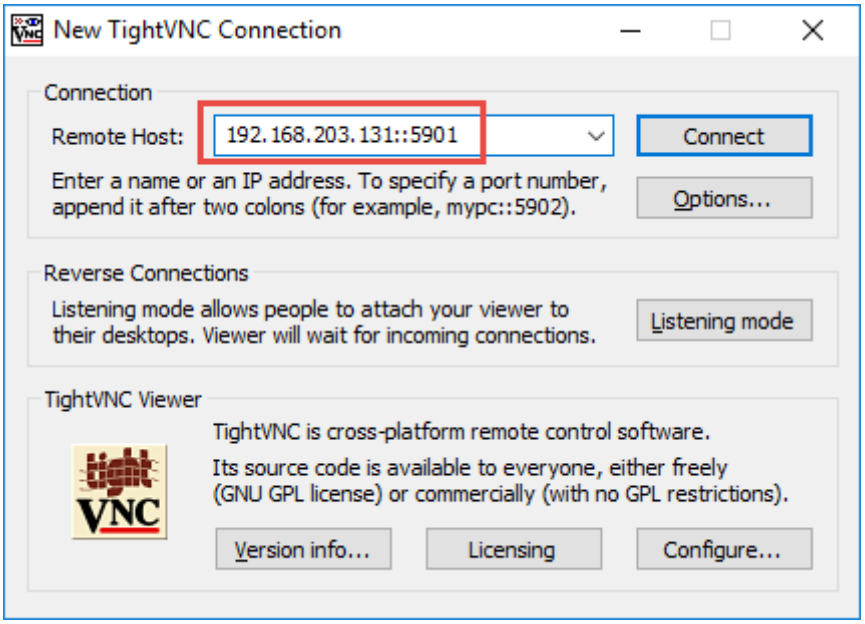
3 To start the VNC server, enter the command **tightvncserver**:

```
config@ConnectionsExpert:~$ tightvncserver

New 'X' desktop is ConnectionsExpert:1

Starting applications specified in /home/config/.vnc/xstartup
Log file is /home/config/.vnc/ConnectionsExpert:1.log
```

Now you can access the appliance's Linux GUI using a VNC client, such as Tight VNC Client (http://www.tightvnc.com/download.php):



The default connection password is **config**. It can be changed by issuing the command **vncpasswd** in PuTTY.

The VNC server is merely a tool to help in exceptional situations where the VM console cannot be accessed otherwise. Due to security considerations it is purposely configured for manual startup only.

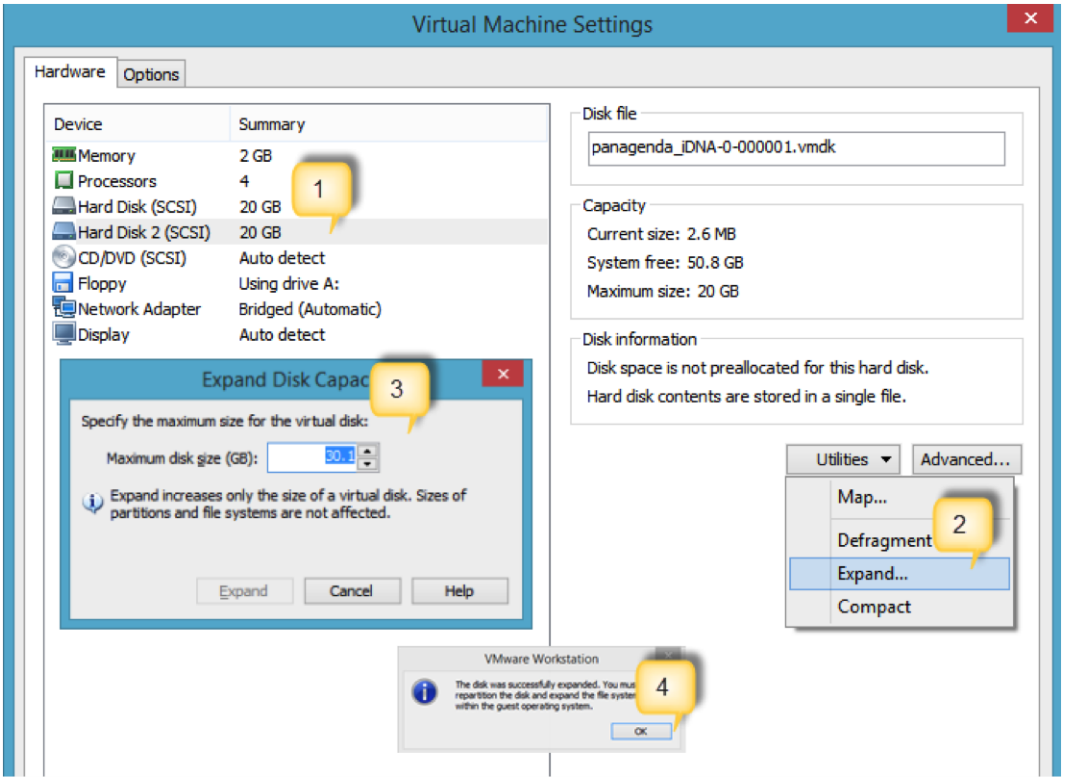
Enlarging ConnectionsExpert Data Disk

Depending on your environment you may need to enlarge the virtual disk on which ConnectionsExpert stores its data on.

In the following you will find a description on how to enlarge disks:

Enlarging VMWare Disk

Enlarging the physical disk is done using the VMWare host application. Here are examples of how to do this in VMWare Workstation/Player (to get an impression of how this is done on vSphere clients, please have a look at the following GreenLight K-Base article: http://kbase.panagenda.com/display/GL2KB/Enlarging+GreenLight+Disks).



1 Click on "Hard Disk 2 (SCSI)"

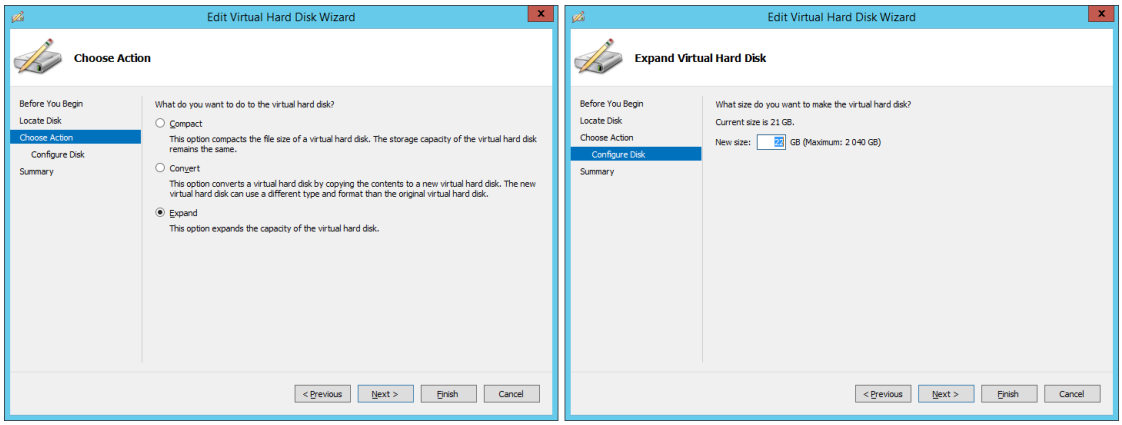
2 Select "Expand..." form the *Utilities* drop down menu

3 Specify the new size

4 When the procedure is done you will get a notification

Enlarging Hyper-V Disk

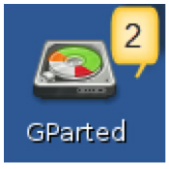
To expand the disk file, open the virtual machine properties and navigate to the disk you want to enlarge. Click **Edit** and follow the Wizard, choosing the **Expand** action to specify a new size:



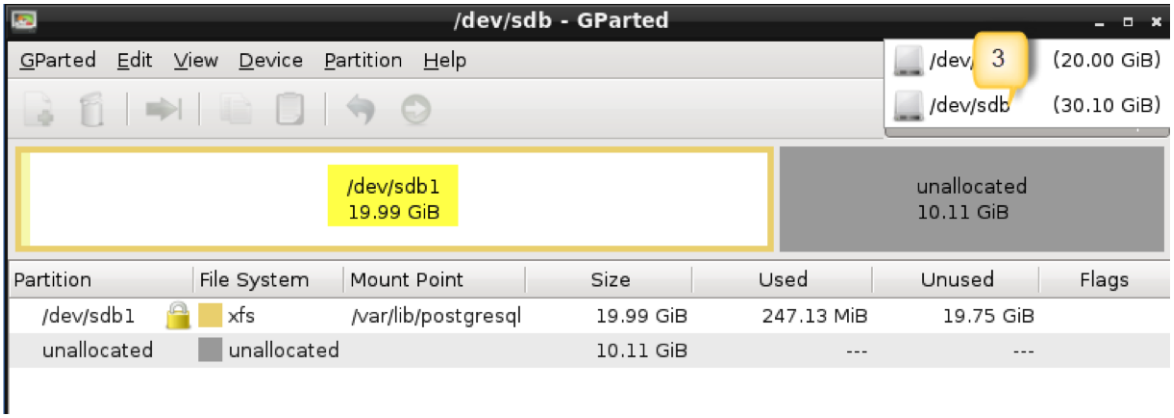
Enlarging the Partition in the ConnectionsExpert Appliance

1 First you have to stop Tomcat and PostgreSQL. We recommend using the short cut on the desktop:

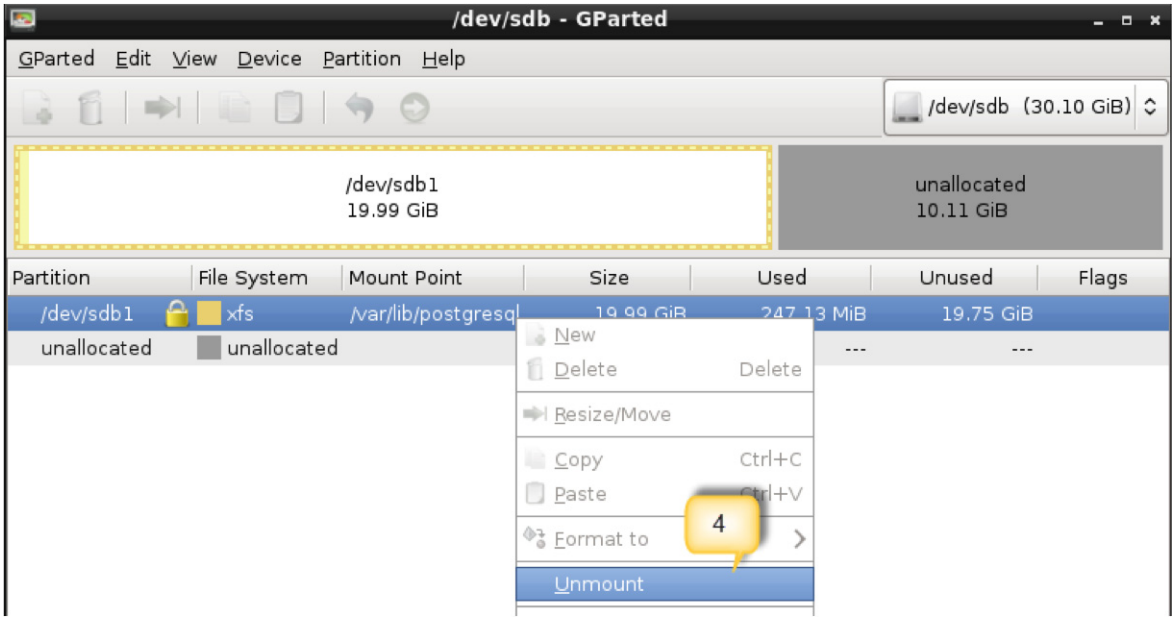
2 The easiest way to enlarge a partition in ConnectionsExpert is to use the installed partition manager **GParted** (you can also start GParted from the Terminal with "sudo gparted"):



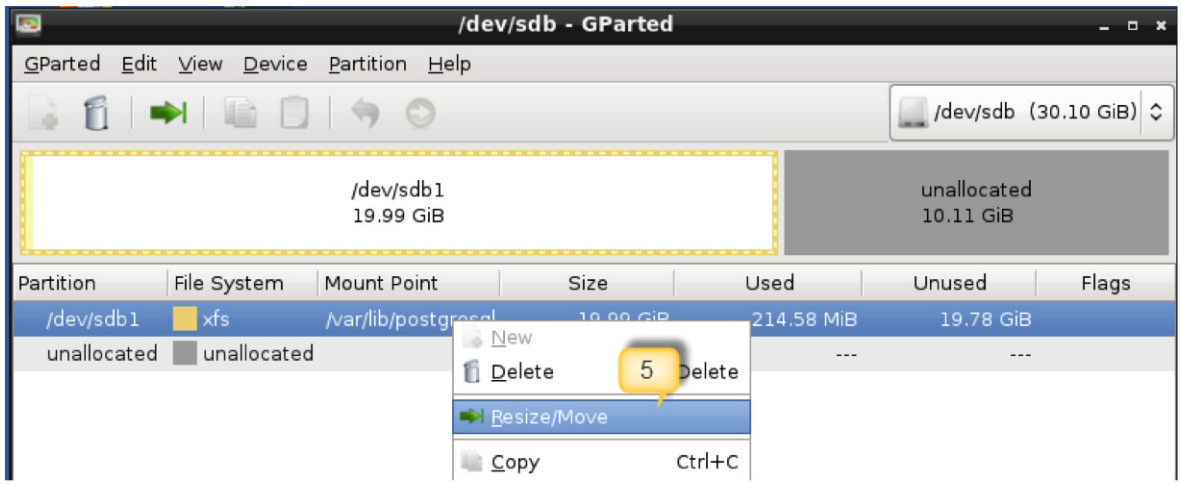
3 Select the physical disk "**sdb**" in GParted:



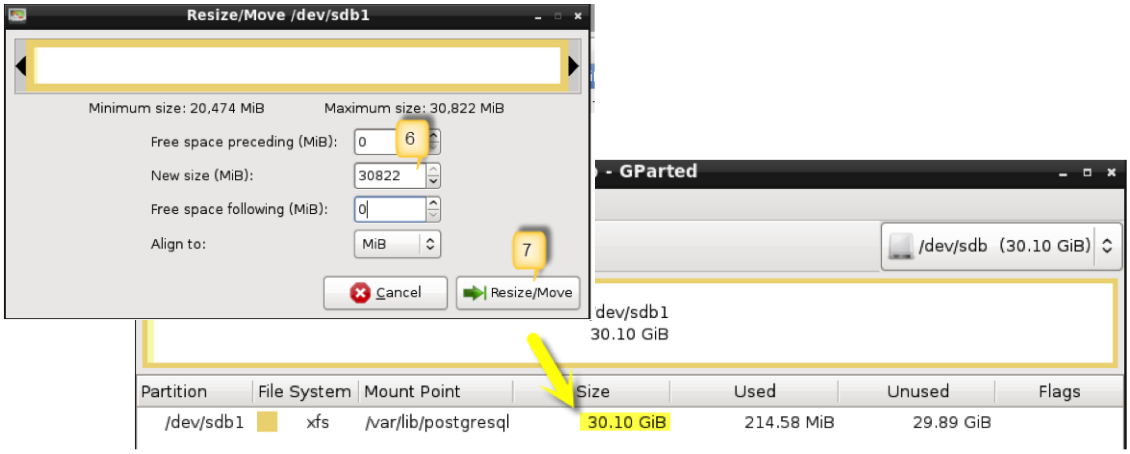
4 Click on partition **/dev/sdb1** and choose "Unmount" from the right click context menu:



5 After unmounting, select "Resize/Move" from the right click context menu:



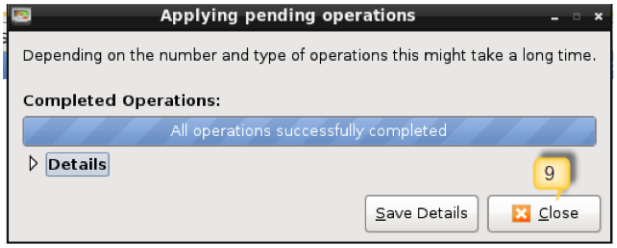
6 Set *New size (MiB):* to the maximum:



7 Click on "Resize/Move"

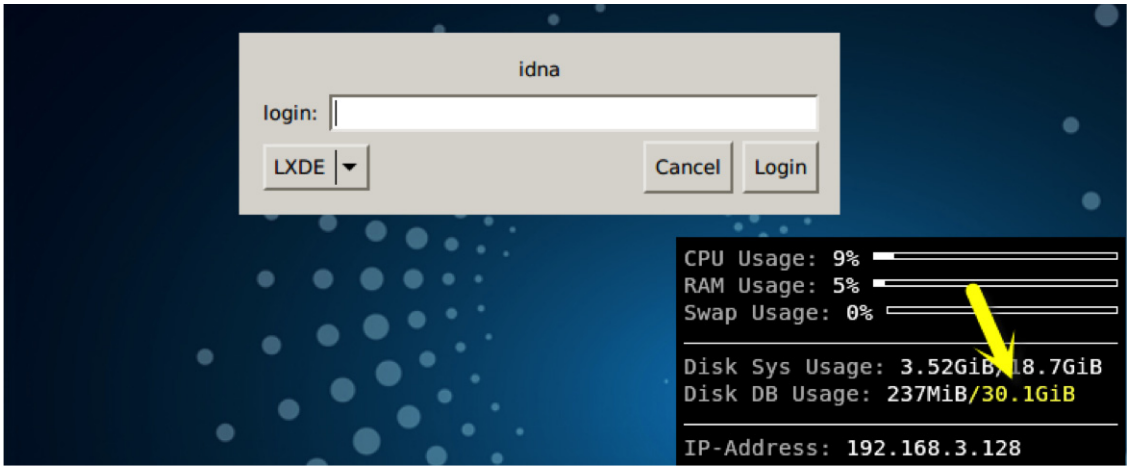
8 Your operations are not applied yet, so you have to click on the apply icon (in the GParted menu bar as well as in the notification you receive afterwards):

9 When all operations are done, please click on "Close" to close GParted:



Then click on the panagenda icon in the task bar:

10 and click on "Reboot"



DISCLAIMER

Limitation of liability for external links

This documentation contains links to the websites of third parties ("external links"). As the content of these websites is not controlled by panagenda, we cannot assume any liability for such external content. In all cases, the provider of information of the linked websites is liable for the content and accuracy of the information provided. At the point in time when the links were placed, no infringements of the law were recognizable to us. As soon as an infringement of the law becomes known to us, we will immediately remove the link in question.

NOTES