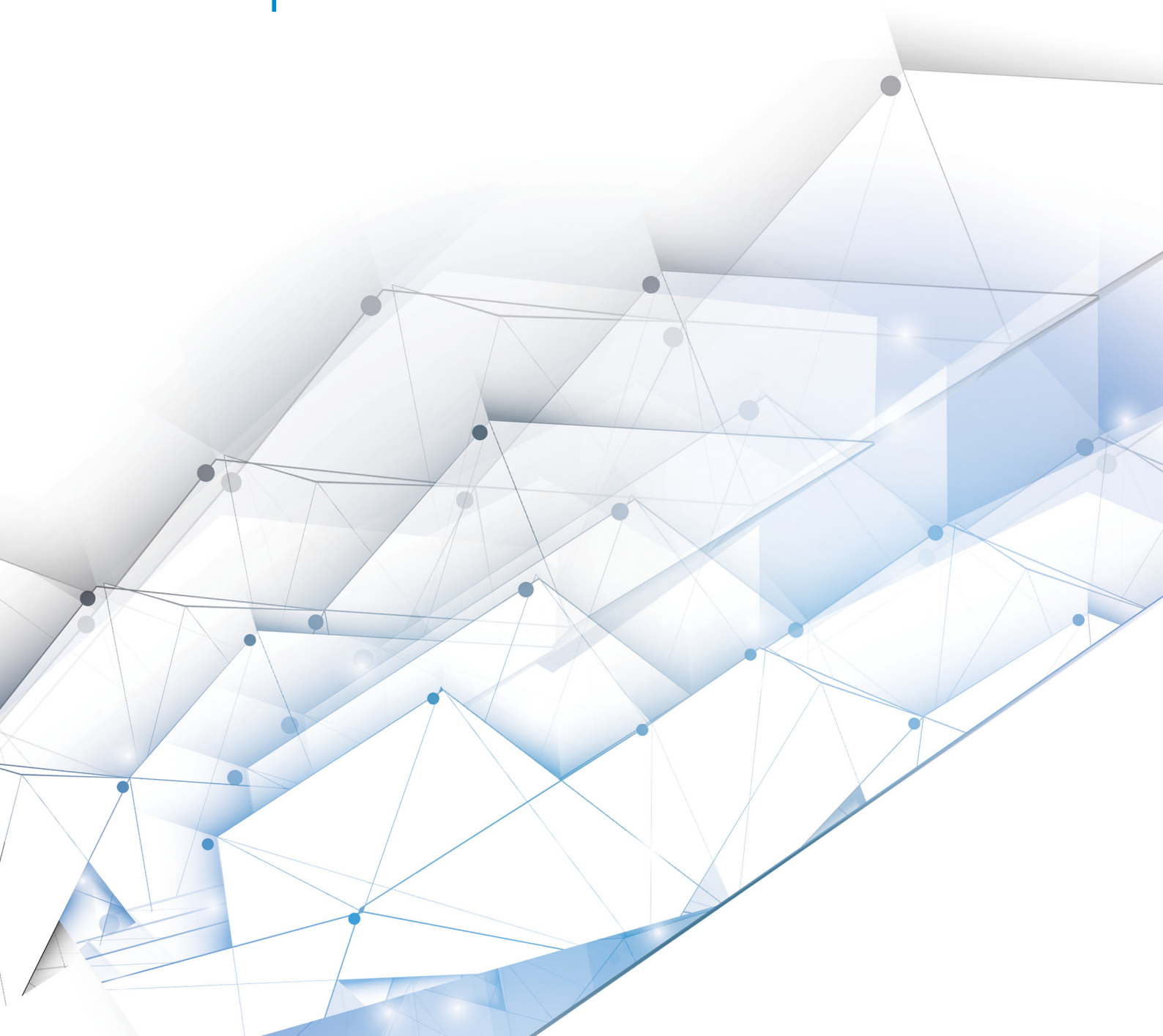
panagenda

ConnectionsExpert

Setup Guide



SETUP GUIDE

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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, 5.5 or 6.0
- 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.

Elasticsearch is currently not supported.

To be able to access your environment, ConnectionsExpert needs to authenticate against the Bridgehead (/bridgehead; see "Bridgehead Installation" on page 17) via basic authentication. To perform the user simulations checks, the appliance requires form-based authentication to authenticate against your IBM Connections environment. Please contact support@panagenda.com in case those requirements are not met or if you have any question related to this topic.

Host Software

panagenda ConnectionsExpert comes as a VMWare appliance including its own operating system based on the popular CentOS Linux distribution. The requirements on the underlying operating system running the VMWare server solution depend on the chosen VMWare product.

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 “Disclaimer” on page 43). 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 18). 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 27).

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 your defined CentOS repository (default *.centos.org) for security and application updates.

See "Customize IP Docker Settings" on page 41 if the following IP address ranges are routable in your nework environment:
- 172.17.0.1/16
- 172.18.0.1/16.

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

- **CentOS 7.5**

  panagenda ConnectionsExpert is based on the very popular CentOS Linux distribution, which is based on the source code of Red Hat Enterprise Linux (RHEL). CentOS 7 was

chosen because of its stability and its long time support (Maintenance until June 2024). It uses a current kernel version (3.10.x) for virtual systems. Only security patches are configured for automatic update via the YUM (yellowdog updater modified).

- **Docker 18 CE**
- **Docker Compose 1.19**
- **Tomcat 8 Application Server**
- **NodeJS 8.11 Application Server**
- **Nginx 1.11 Reverse Proxy Server**
- **Java 8 Virtual Machine**
- **PostGreSQL 10 Relational Database Server**

GETTING STARTED

Setup

On our website (www.panagenda.com/downloads-connectionsexpert/), 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_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.

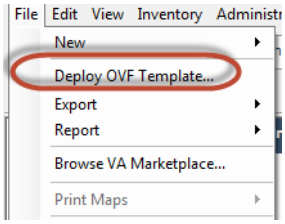
Please note that a license file is required to run ConnectionsExpert. This also applies to the free Basic edition. Please contact sales@panagenda.com to request a license.

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.

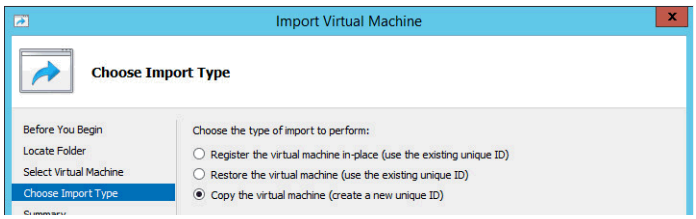
Alternative: Microsoft Hyper-V

- Extract the file **panagenda_ConnectionsExpert_HyperV.exe**

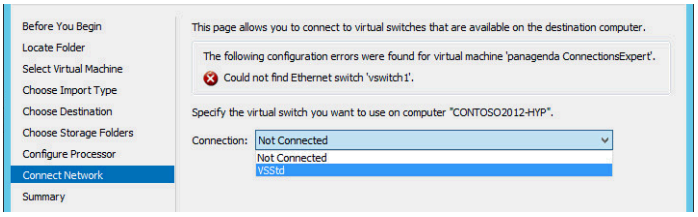
- Start Hyper-V Manager

- 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: Starting up on VMWare Workstation

- Start VMWare Workstation
- Open Virtual Machine

Select the file panagenda_ConnectionsExpert.ova

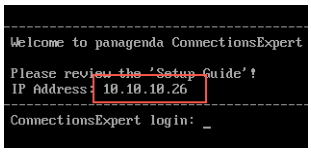
Starting the Virtual Appliance

For VMWare products, we recommend raising the hardware version of the virtual machine according to your environment.

Further information: *https://kb.vmware.com/s/article/1010675*

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 DHCP is not available within your network or the ConnectionsExpert appliance did not acquire any IP address, you have to configure the network settings (see "Network Settings:" on page 15).



Appliance Login

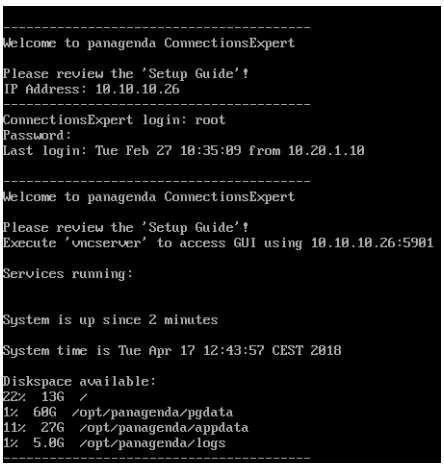
ConnectionsExpert provides a console and a graphical user interface in order to configure operating system level settings like network, time and time zone settings.

Default login information:

user "root" with password "config"

Console

After login, basic information, such as disk space, system time and IP address, are shown:



Graphical User Interface

There are two ways to use the GUI to configure your ConnectionsExpert appliance:

1 **Local**

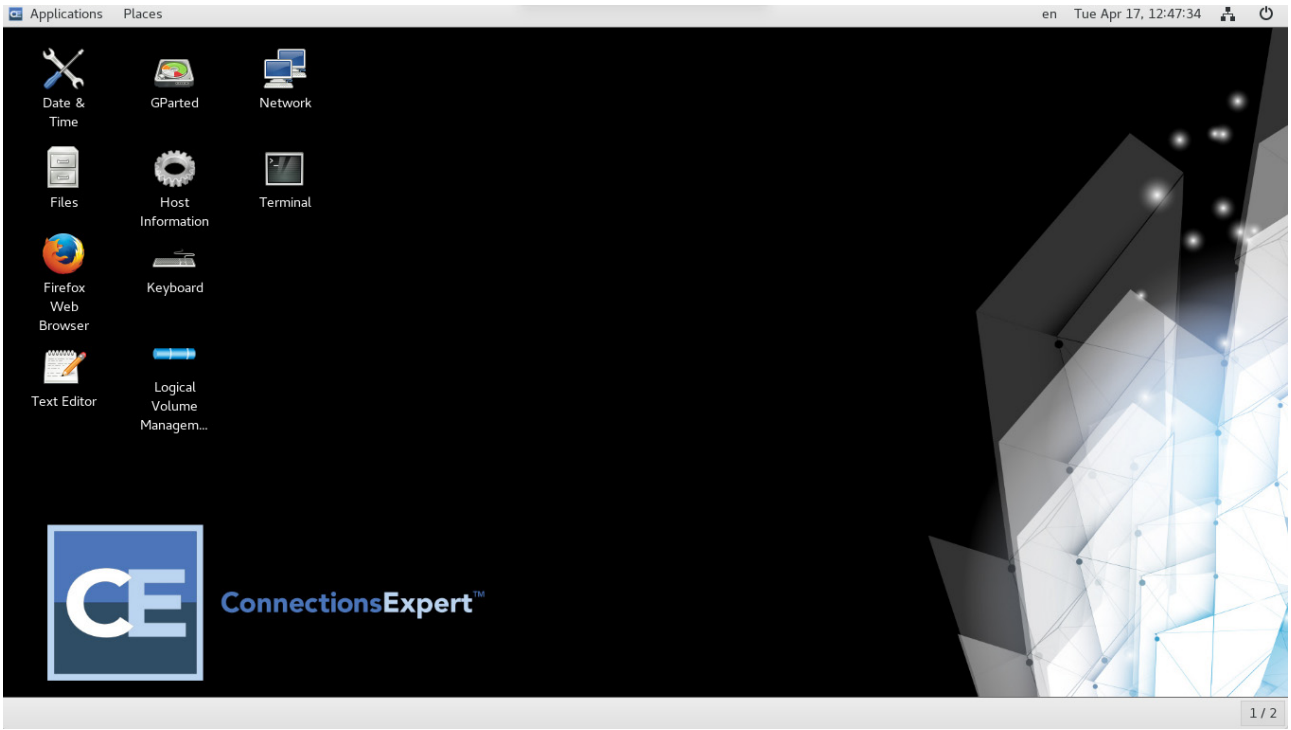
In order to start the GUI locally, enter the command "**startx**"
To start the GUI automatically when ConnectionsExpert is booted, please enter the following command: "**systemctl set-default graphical.target**"

2 **Remote Access via VNC**

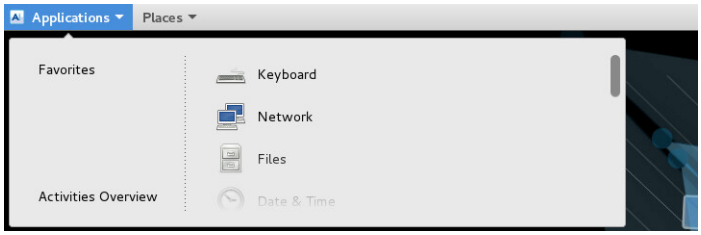
Please note that remote VNC access is only possible if the ConnectionsExpert appliance received an IP address via DHCP.

Please refer to "Remote Appliance Access (VNC)" on page 32 for more details on VNC access.

GUI Basics



The Applications menu provides access to all required applications:



You can access all required applications by using the desktop icons, too.

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

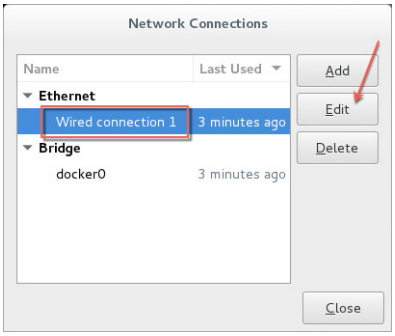
You can use the **terminal window** to check if your TCP/IP connection is established, using Linux *ping* and *ifconfig* command. For more information about *ping* and *ifconfig* commands, type *man ping* or *man ifconfig* in the terminal console window.

panagenda ConnectionsExpert log files can be found within the /opt/panagenda/logs directory. The main log file (/opt/panagenda/logs/tomcat/idna.log) holds essential information about panagenda ConnectionsExpert runtime behavior. Use the **Files** app to navigate to these log files.

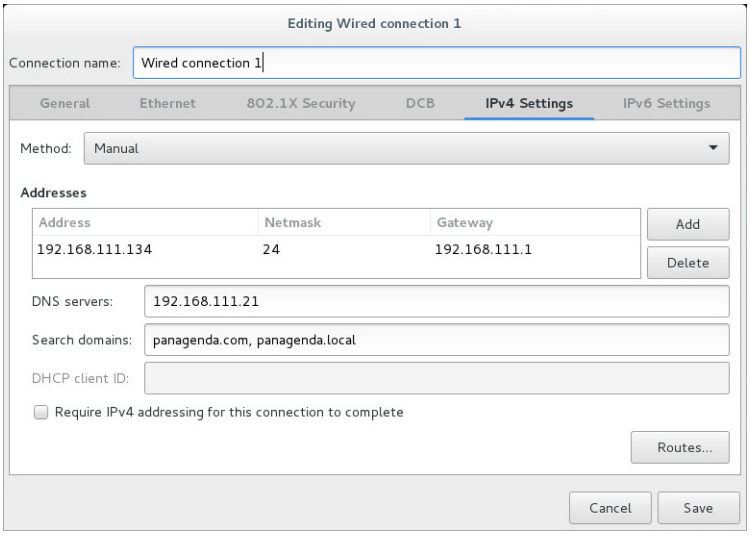
To check the panagenda ConnectionsExpert appliances system behavior, you can use the installed **system monitor**.

Network Settings:

To change the IP address and DNS configuration please click on the **Network** icon. Select the *Ethernet* connection and click on *Edit*:



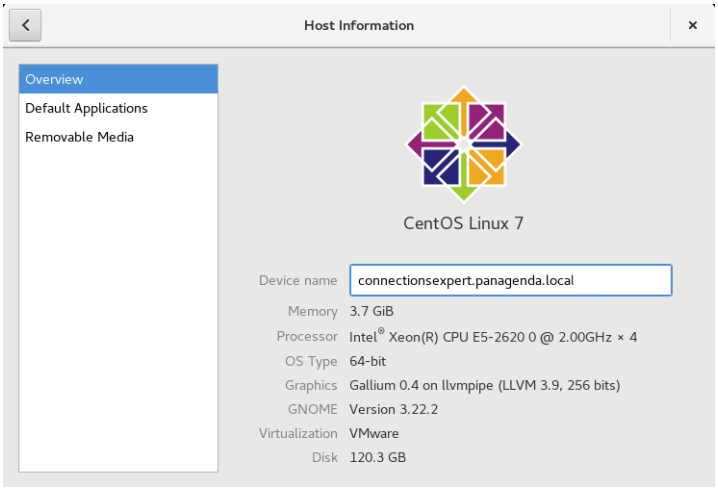
Go to the IPv4 Settings tab and select *Manual* from the *Method* drop down menu to configure the network settings as required:

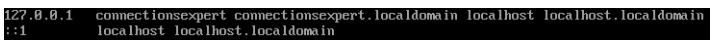


TIP: If you configure "DNS Search domains", not full qualified names will also be resolved.

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 recommended that both host/common name as well full qualified domain name are pingable.

When changing the host name (default is "ConnectionsExpert") in the **Host Information** application, please make sure to adapt the host alias properties for 127.0.1.1 in /etc/hosts. This can be done using the **gedit** application. It is recommended that both host name and full qualified domain name are entered here:





Time Zone Settings:

Please check the time zone settings of the appliance, use the **Time and Date** application 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

Connect to the ConnectionsExpert web interface (see "Using the Web Interface" on page 26). In the Configuration view you can download the **ConnectionsExpert_Bridgehead.zip**. If you are not in the Configuration view, click on the cogwheel icon (top-right corner). The Bridgehead 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
```

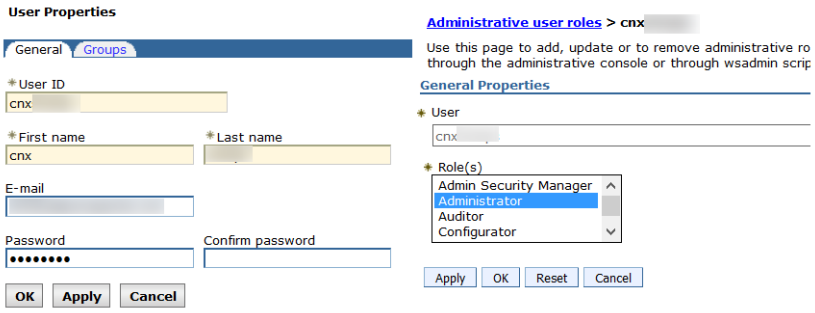
localhost only works in non-clustered environments. Please use the hostname (FQDN) in clustered environments.

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:

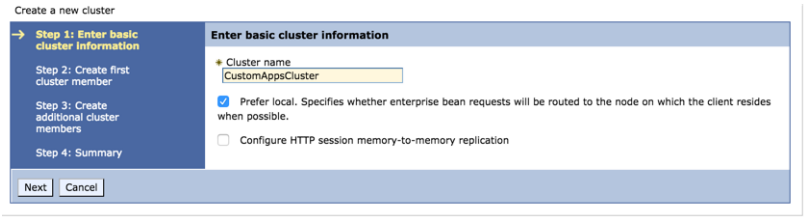


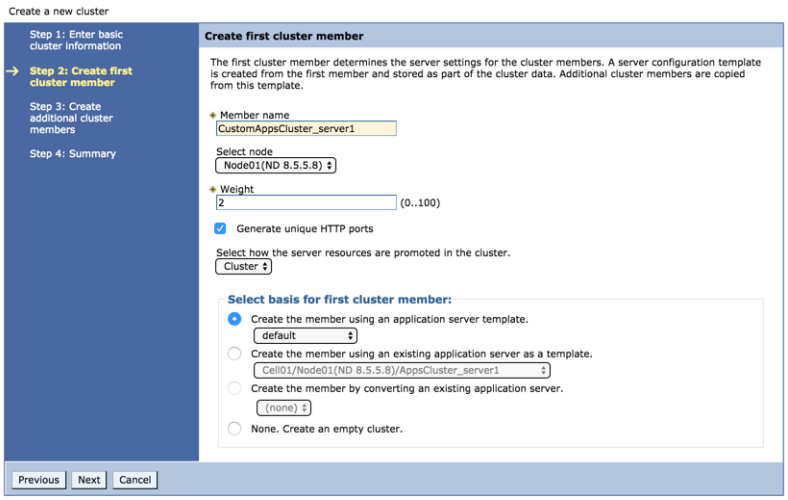
Optional: To encrypt the password in the **adminclient.props** you can use the following command:

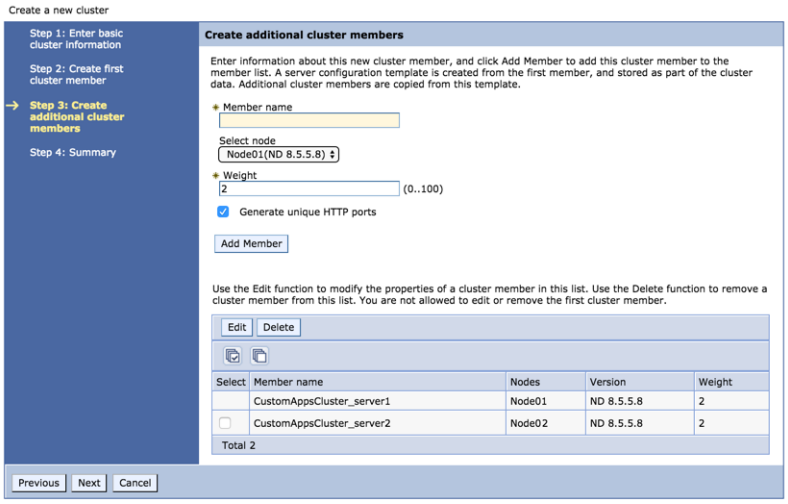
- Linux:
  `/opt/IBM/WebSphere/AppServer/bin/PropFilePasswordEncoder.<sh|bat> /<path_to_pbh_dir>/adminclient.props password`
- Windows:
  `<customer-specific>\WebSphere\AppServer\bin\PropFilePasswordEncoder.<sh|bat> \<path_to_pbh_dir>\adminclient.props password`

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.

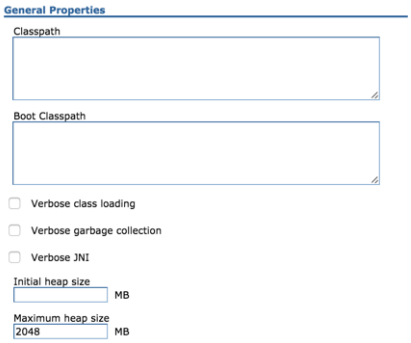






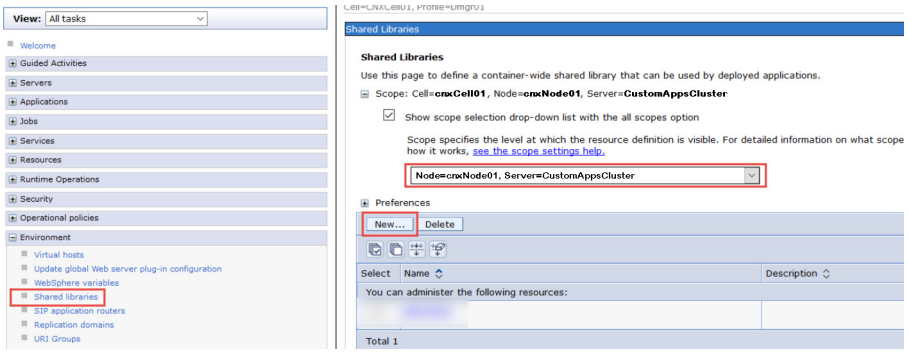
In clustered Connections environments you can select more than one node to install the panagenda Bridgehead on.

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



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:

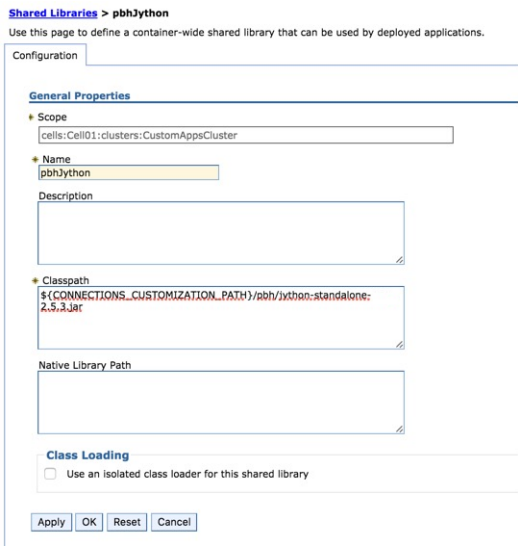


Enter "pbhJython" in the **Name** field and use a **Classpath** based on the Connections Customization directory, such as

`${CONNECTIONS_CUSTOMIZATION_PATH}/pbh/jython-standalone-2.5.3.jar`

(WebSphere Variable: CONNECTIONS_CUSTOMIZATION_PATH.)

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

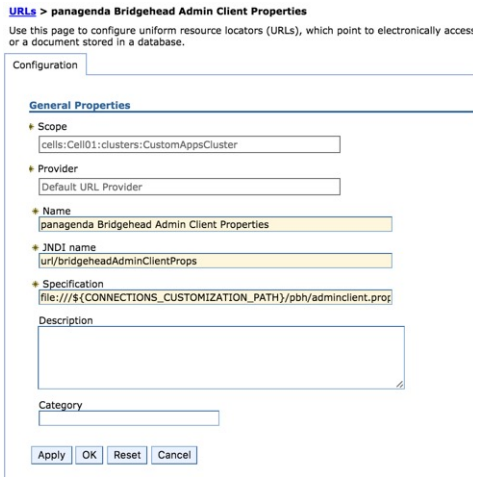


5 Create URL Resources

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`



panagenda Bridgehead SQL Queries

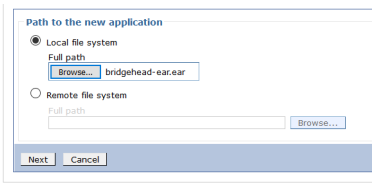
Name:
`panagenda Bridgehead SQL Queries`
JNDI Name:
`url/bridgeheadQueries`
Specification:
`file:///${CONNECTIONS_CUSTOMIZATION_PATH}/pbh/queries`

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:**

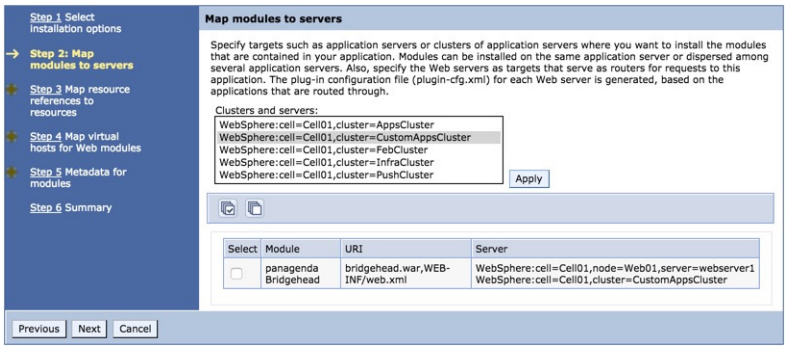


Select **Fast Path** and click *Next*.

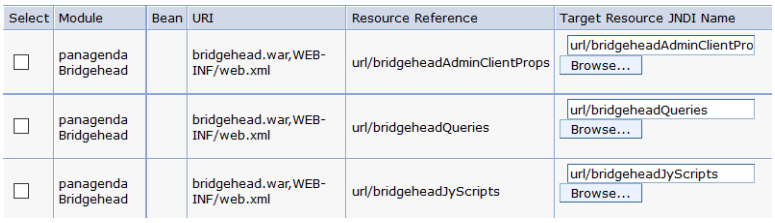
Just click on *Next* in Step 1 (no need to adjust/change anything here).

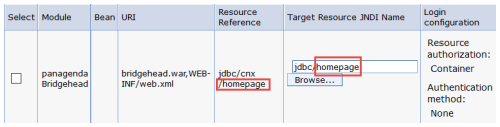
In Step 2, select the newly created cluster and a web server.

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*.



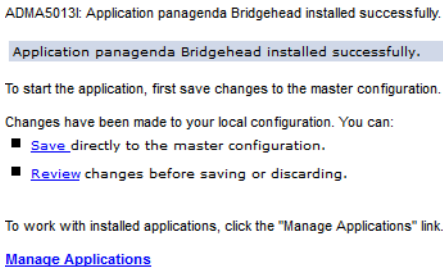
In the next step, please recheck the predefined values. If your installation differs from the default values, please adjust the JNDI names for URLs and all Data sources:





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

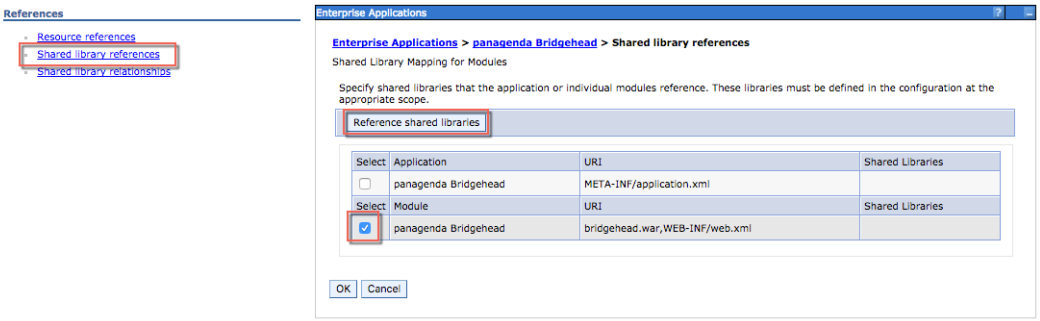
Wait until you see the message "Application panagenda Bridgehead installed successfully" and click on **Save**:



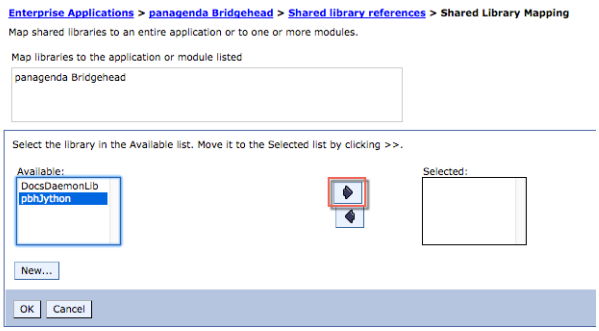
7 Map Shared Library Reference

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

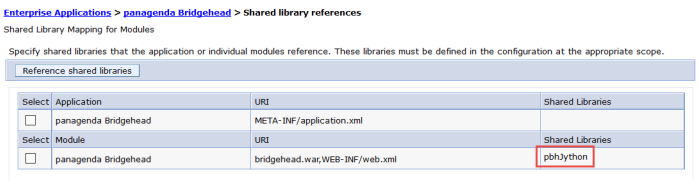
Select the second entry and click **Reference shared libraries**



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



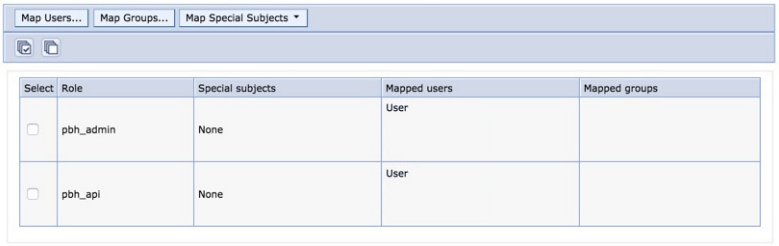
Your shared library reference should look like on this screenshot:



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 7):



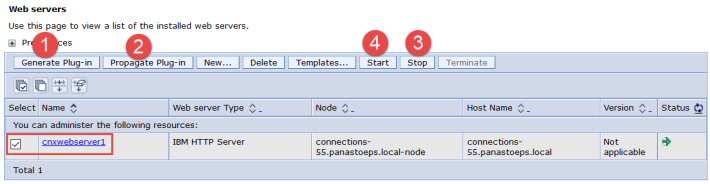
9 Restart Cluster

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**



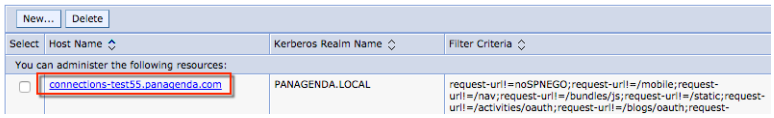
If you have a firewall between your HTTP and application server, please note that the panagenda Bridgehead ports need to be opened. Otherwise your HTTP server will not be able to access the Bridgehead cluster.

11 OPTIONAL: Adjust SPNEGO Configuration

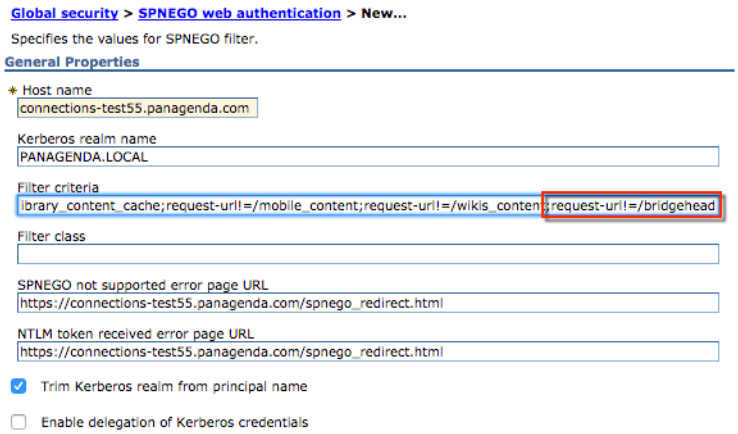
If SPNEGO is used, the panagenda Bridghead has to be added to its exceptions!

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

- Select your SPNEGO filter

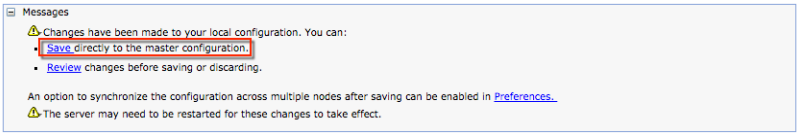


- Add
  `;request-url!=/bridgehead`
  to the end of the **Filter criteria**, as shown on the screenshot:

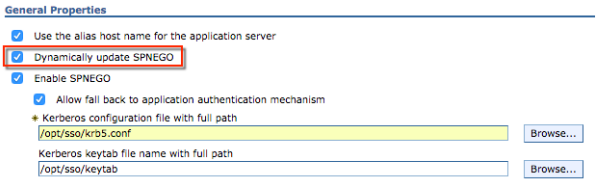


- Confirm by clicking **OK**

- Store your adjustments with **Save**:



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



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 24.

You should see a line similar to the following:

`{"status":"OK","ts":1524067997537...`

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 13 and for further information about its hostname (FQDN), please refer to "Network Settings:" on page 15.

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:

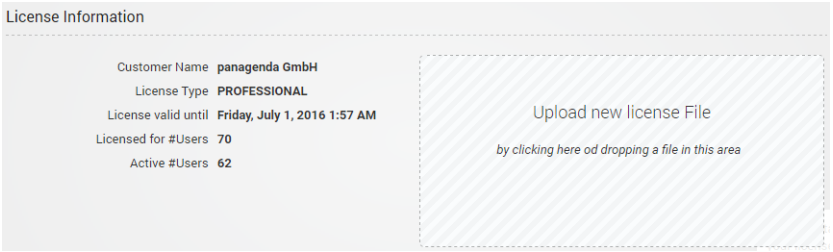
user "config" with password "config"

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.

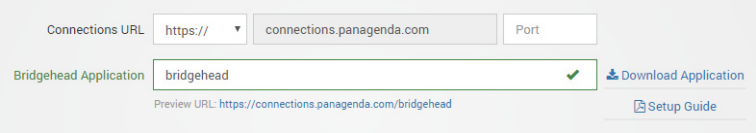


2 Bridgehead Connector - Endpoint

Bridgehead installation has to be completed (see "Bridgehead Installation" on page 17) 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.

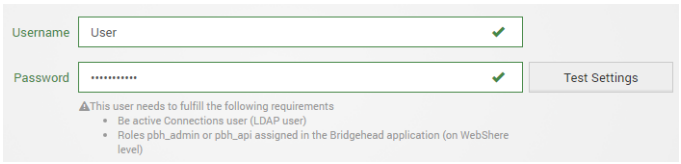
Please enter the **Bridgehead Application** path according to your installation:



3 Bridgehead Connector - User Information

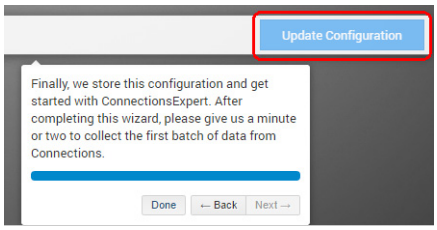
This user must be able to use Connections (LDAP user), have an active profile and needs roles in Bridgehead (pbh_admin or pbh_api, see "Bridgehead Installation" on page 17).

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



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:



Configure Connections Widgets

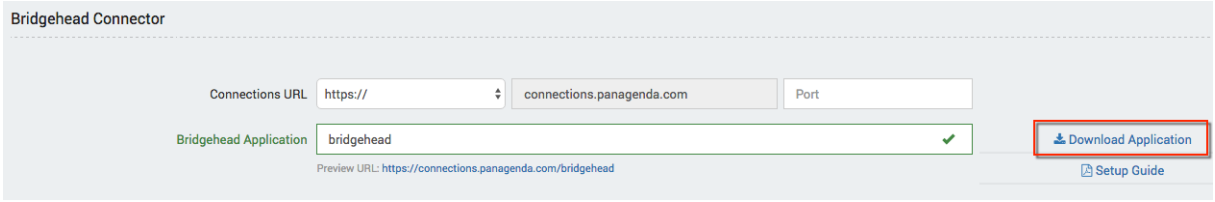
Please refer to the following article in the ConnectionsExpert knowledge base:

https://www.panagenda.com/kbase/display/CE/Configure+Connections+Widgets

ADDITIONAL INFORMATION

Bridgehead Upgrade

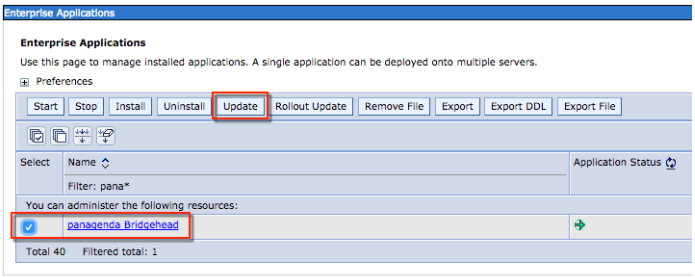
After the appliance upgrade (see “Bridgehead Upgrade” on page 28) you can download the current Bridgehead application from the ConnectionsExpert **System Configuration**:



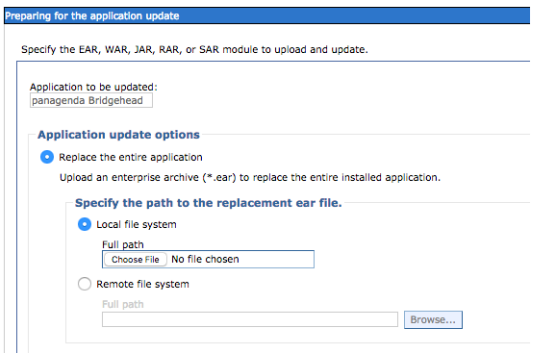
Please perform the following steps upgrade the panagenda Bridgehead application:

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

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

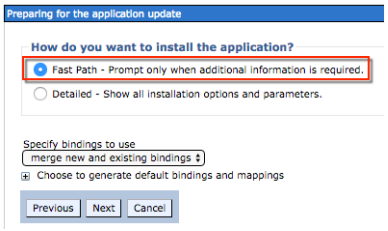


3 Select **Replace the entire application**. Here you can either upload the file (**Local file system**) or refer to a path on a application server (**Remote file system**):



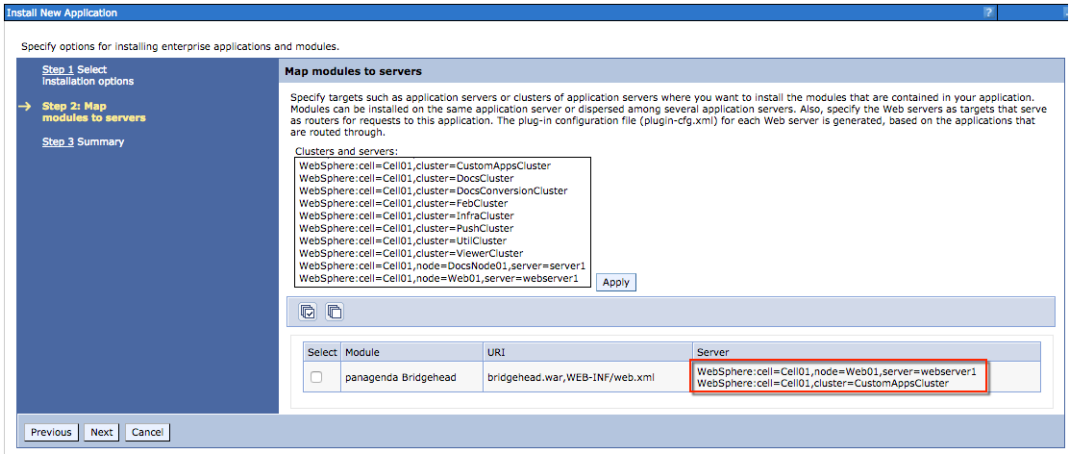
Click **Next**

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



5 Click **Next**

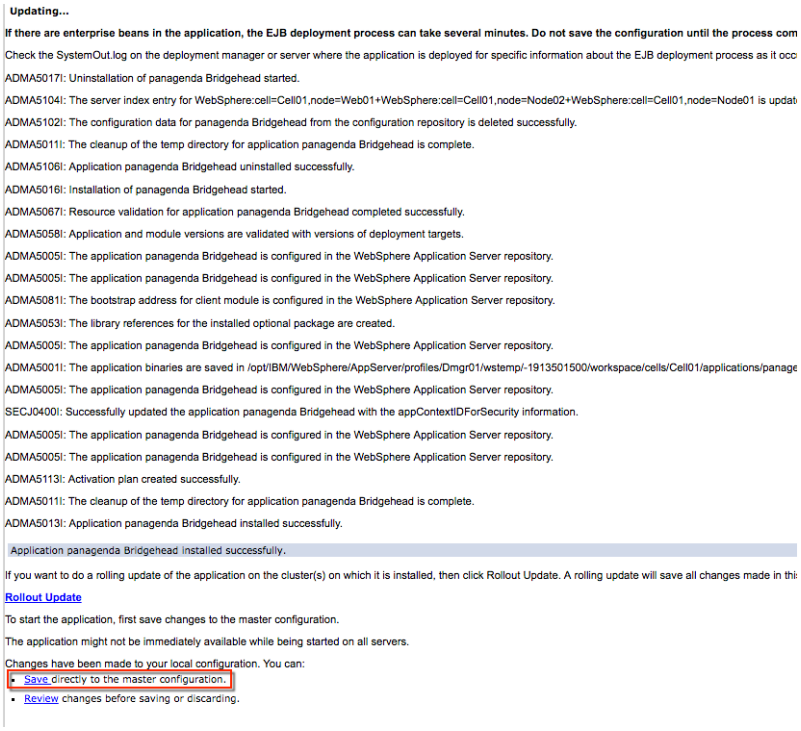
6 Please check the mapping in Step 2: Your applications should run on at least one application server or cluster. For licensing reasons, the Bridgehead application has to be accessible via the Connections HTTP server:



Click **Next**

7 Click **Finish**

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



9 Please restart the application cluster or server

SSL Certificate

The SSL certificate and key are stored in the folder ***/opt/panagenda/appdata/volumes/ce/nginx/ssl***. If you want to use your own certificate with ConnectionsExpert, just replace the files ***certfile.pem*** and ***keyfile.key*** in this folder with the corresponding files. **Both files must not be encrypted** (no pass phrase required)!

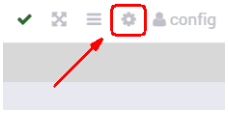
Please note that you have to keep the filenames!

Reboot the virtual appliance after changing the SSL certificate.

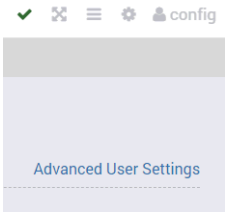
Adding New Users to ConnectionsExpert

1 To create new users in ConnectionsExpert you need to select the **Add User** option from the cogwheel icon menu at the top right hand side of the dashboard.

Note: You can also reference this shortcut when starting up ConnectionsExpert by going directly to this URL of your CE appliance: https://<your-CE-IP>/idna/sys/accounts.



2 From the User Settings screen, click on **Advanced User Settings** in the right hand corner of the configuration view:

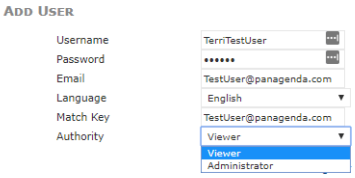


3 Log in to the **Appliance Configuration Admin Portal** with a user with the user role *Administrator* (default "config" user)

4 Create your user

Note, you can choose one of two roles for that user: Viewer (can see your data, but not change configuration) and Administrator (can edit the configuration dashboards etc.); see "User Roles" on page 32.

Important: You have to fill in the 'Match Key' field as well or otherwise the user creation will fail (that is a UI requirement).
You can use the email address of a user as the match key. It has to be unique among all other existing users.



5 Once you have created that user, you can log in with that user name and password and you will see that you successfully logged in as that user in the upper right hand corner of the dashboard.

NOTE, if you give your user the role Viewer that user will not be able to see the configuration cogwheel when they are logged in.
Also note that it can be helpful to clear the browser cookies switching back and forth between users.

User Roles

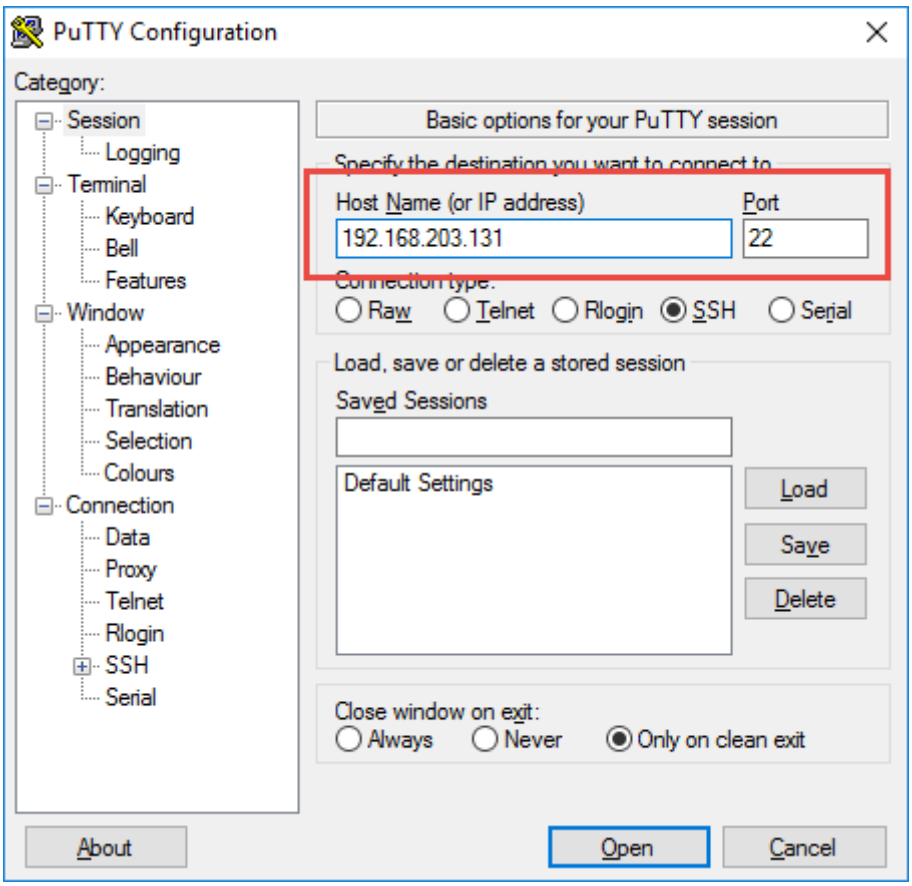
panagenda ConnectionsExpert has two types of users:

- **Viewer**: Can access all analysis and metrics data and interact with the visualizations but is restricted from changing panagenda ConnectionsExpert system settings.
- **Administrator**: Can access all analysis and metrics data and interact with the visualizations and is allowed to manage panagenda ConnectionsExpert system settings. Including creating accounts and resetting user passwords

Remote Appliance Access (VNC)

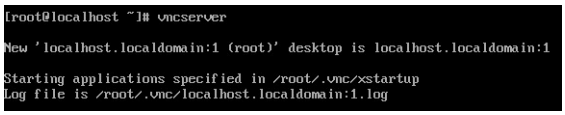
In order to enable access to the Linux GUI, a VNC server is pre-installed on the ConnectionsExpert applicance. To start the VNC server, please follow these steps:

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):

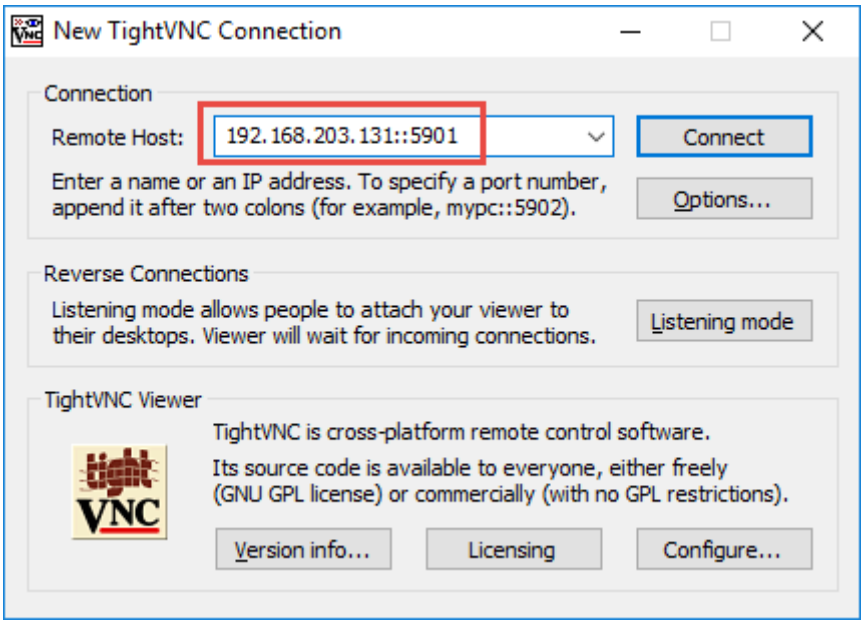


2 Log into the appliance with the user **root**

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



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.

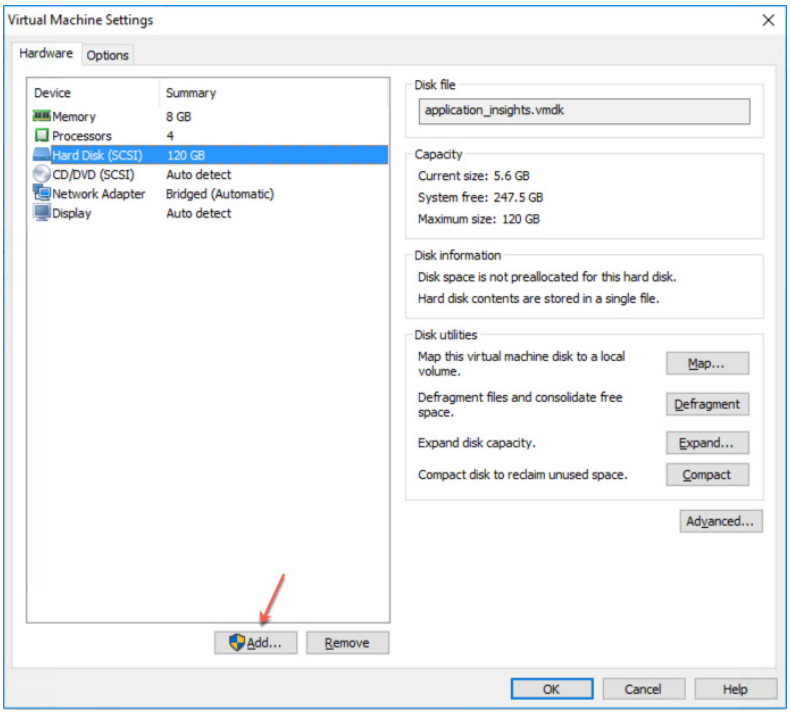
Extending Disk Space

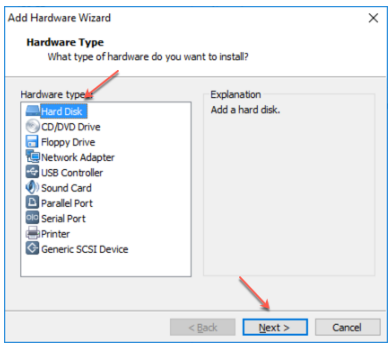
Depending on your environment you may need to enlarge the virtual disk on which ConnectionsExpertConnectionsExpert stores its data on.

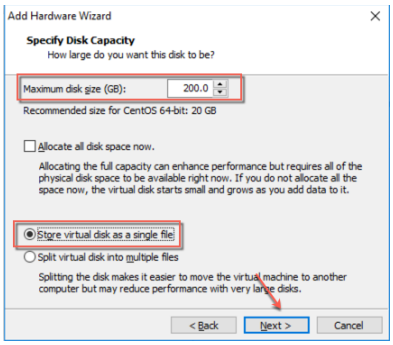
Please note that all virtual disks have to be located on the same physical storage. Please also note that extending disk space ALWAYS means that you have to add a new disk on virtual hardware level. I. e. extending disk space never means enlarging existing disks.

Extending VMWare Disk

Extending the virtual disk is done using the VMWare host application. Here are examples for VMWare Workstation and vSphere:





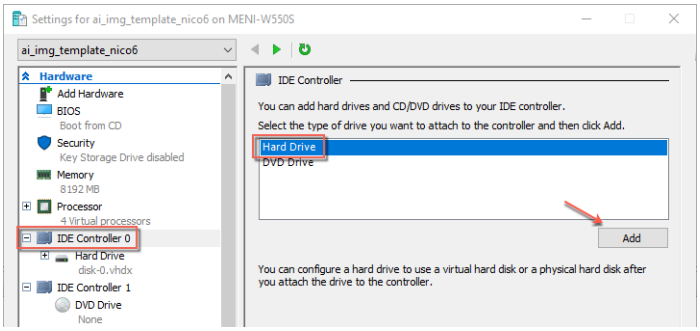


Please restart the virtual appliance after adding the new disk.

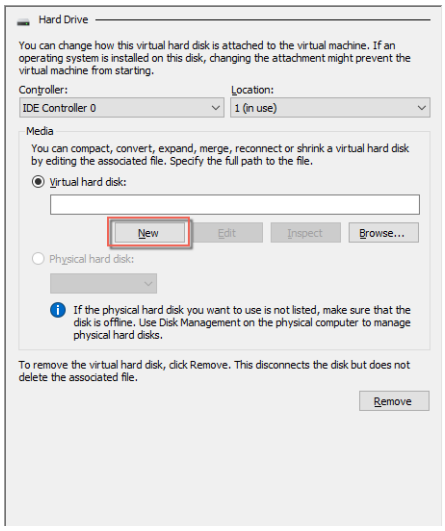
Extending Hyper-V Disk

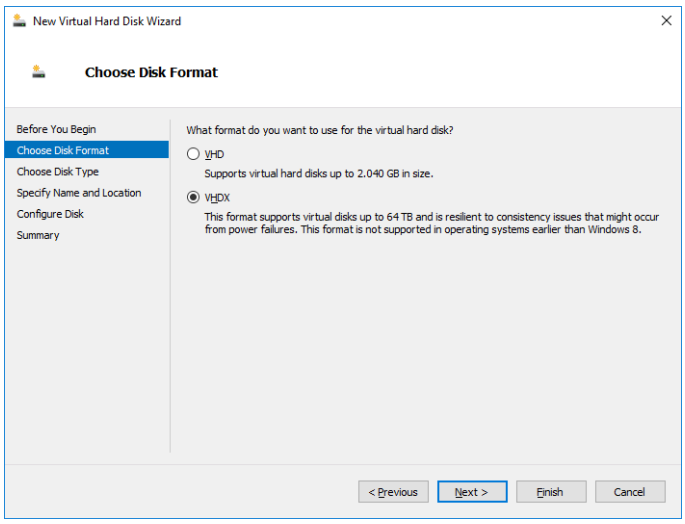
To extend the virtual disk, open the virtual machine properties and follow the steps below:

1 Navigate to *IDE Controller 0*, select *Hard drive* and click ***Add***:

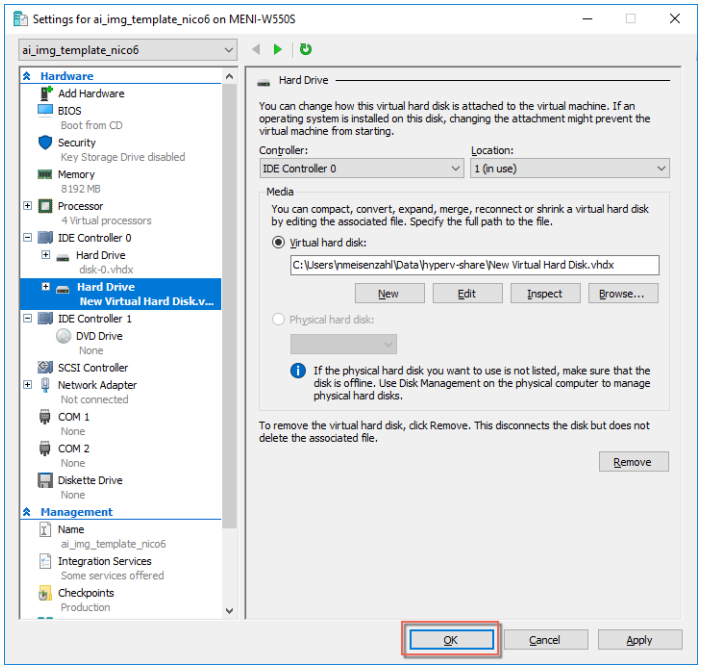


2 Select ***New*** and finish the wizard:





3 After finishing the wizard click ***Ok*** to exit the Settings:

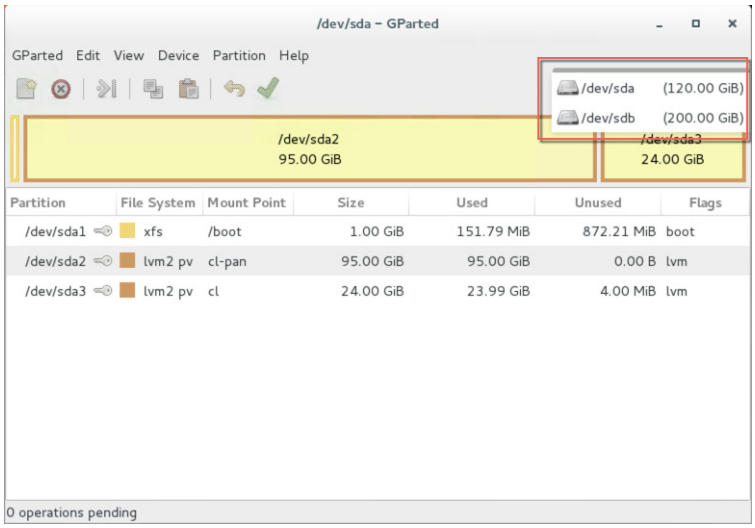


Please restart the virtual appliance after adding the new disk.

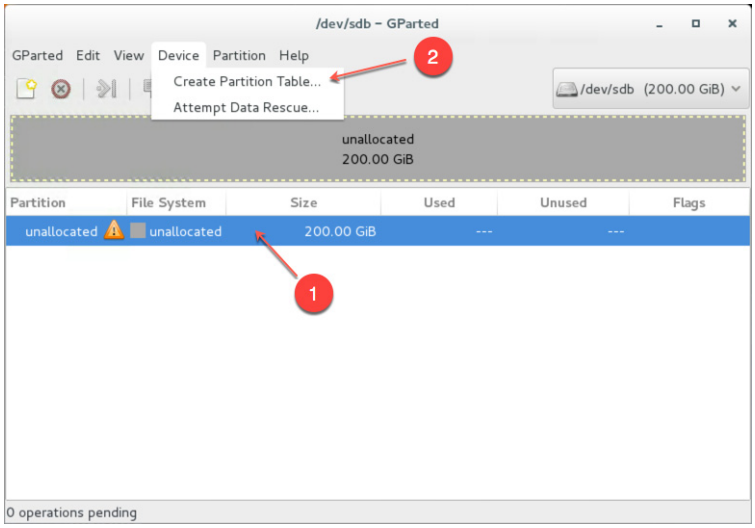
Enlarging the Partition in the ConnectionsExpert Appliance

1 The easiest way to enlarge a partition in ConnectionsExpert is to use the installed partition manager **GParted**. Please launch it using the Applications menu (you can also start GParted from the Terminal with "sudo gparted"):

2 Select the new physical disk:

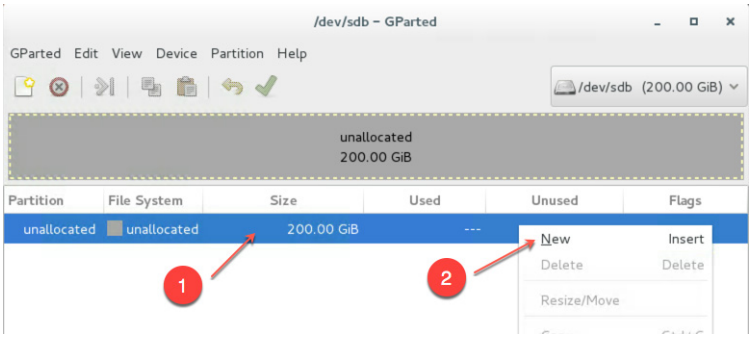


3 Select the unallocated space, open the *Device* menu and on click on ***Create Partition Table***:

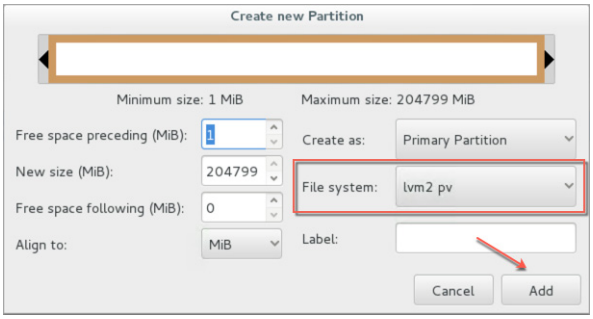


4 Click on *Apply* in the warning:

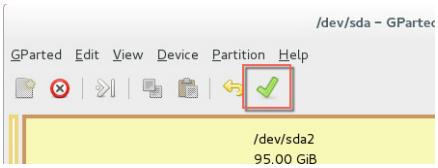
5 Select the new *unallocated* space, right-click and select *New*:



6 From the *Create as* drop down menu, select ***Primary Partition*** and chose ***lvm2 pv*** as *File system* (if needed, a *Label* can be defined):

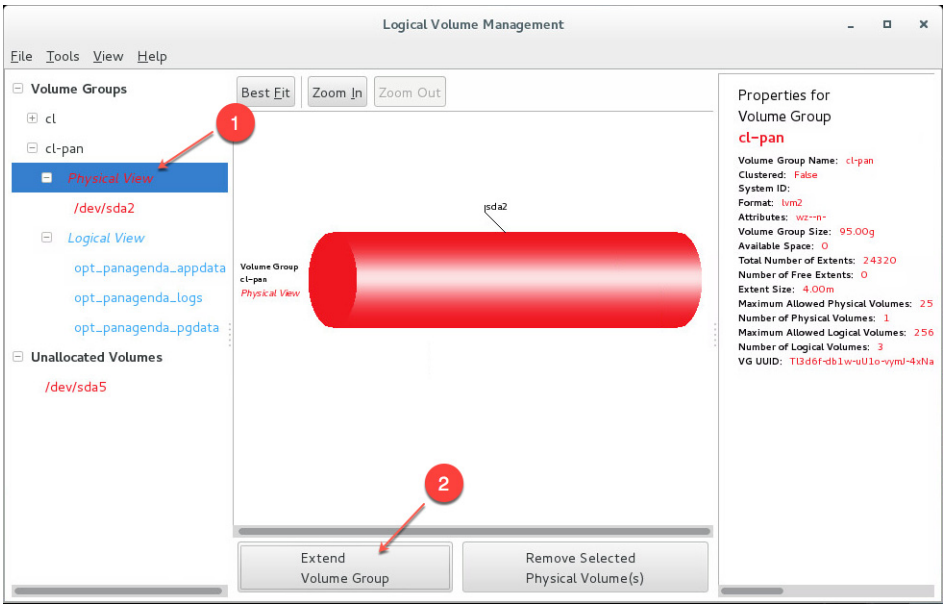


7 Save your changes by clicking the **apply button** - also on the popup message

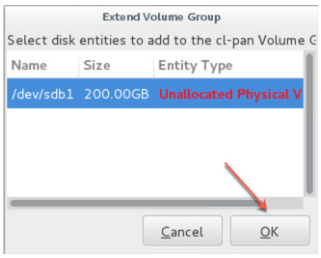


8 Start the **Logical Volumes Manager** from the Applications menu

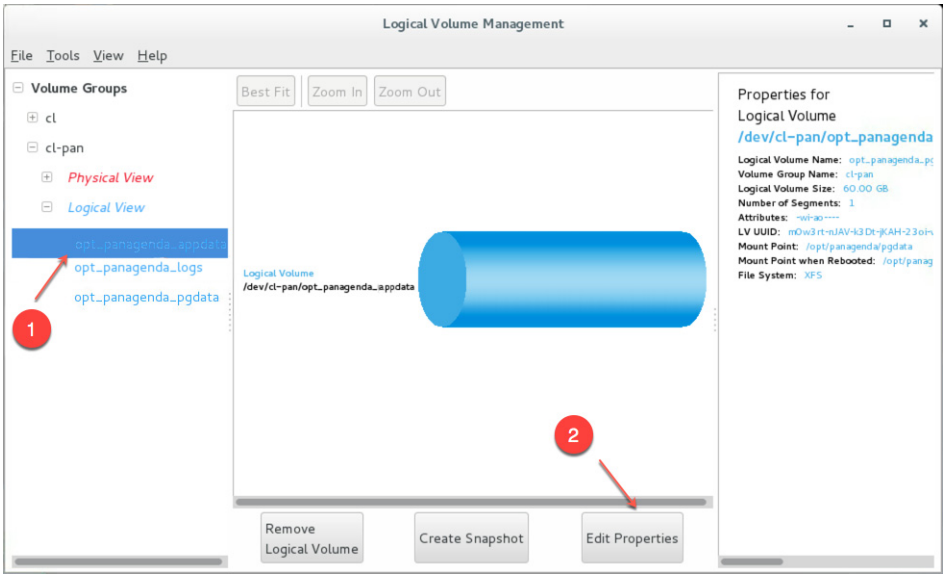
9 Open the *Logical View* on the left hand side, select *Physical View* and click ***Extend Volume Group***:



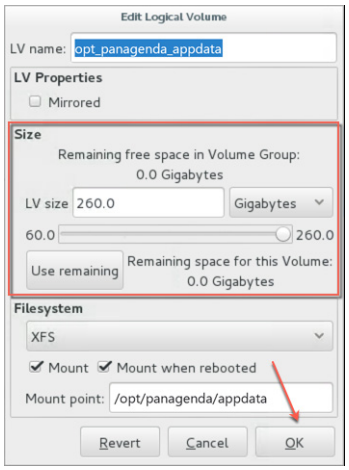
10 Select your new volume and click *OK*:



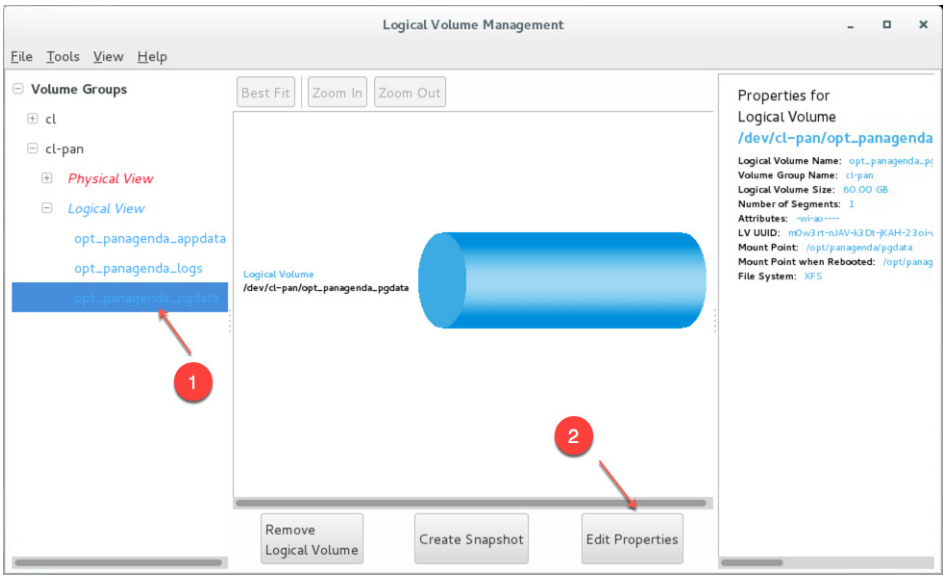
11 After this, select the logical volume ***opt_panagenda_appdata***:



12 Resize the logical volume as needed:



13 Select the logical volume ***opt_panagenda_pgdata***:



14 Resize the logical volume as needed (see step 12)

Tip: You can repeat this enlargement whenever you need more space.

Customize IP Docker Settings

panagenda ConnectionsExpert uses the following Docker networks per default:

Bridge

IP segment: 172.17.0.1/16

panagenda Network

IP segment: 172.18.0.1/16

Customization

To change the default settings, please create an "/opt/panagenda/appdata/ce/config" file with the following content (adapt the IP segments as required):

```
# defines the default Docker bridge ip segment
PANAGENDA_DOCKER_BRIDGE=172.30.0.1/16
# defines the panagenda Docker network ip segment
PANAGENDA_COMPOSE_NETWORK_SUBNET=172.31.0.1/16
```

Afterwards execute the following command:

ce customize

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