



Junosphere

Guide for Bank Administrators

Release

2.3



Published: 2012-05-16

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Junosphere Guide for Bank Administrators
2.3

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Documentation and Release Notes

For disclosure information on Junosphere Connector, refer to the files located at <http://www.juniper.net/support/products/junosphereconnector>.

To obtain the most current version of all Juniper Networks® technical documentation, see the product documentation page on the Juniper Networks website at <http://www.juniper.net/techpubs/>.

If the information in the latest release notes differs from the information in the documentation, follow the product Release Notes.

Juniper Networks Books publishes books by Juniper Networks engineers and subject matter experts. These books go beyond the technical documentation to explore the nuances of network architecture, deployment, and administration. The current list can be viewed at <http://www.juniper.net/books>.

Documentation Conventions

Table 1 on page ix defines notice icons used in this guide.

Table 1: Notice Icons


Icon	Meaning	Description
	Informational note	Indicates important features or instructions.

Table 2 on page x defines the text and syntax conventions used in this guide.

Table 2: Text and Syntax Conventions

Convention	Description	Examples
Bold text like this	Represents text that you type.	To enter configuration mode, type the configure command: user@host> configure
Fixed-width text like this	Represents output that appears on the terminal screen.	user@host> show chassis alarms No alarms currently active
<i>Italic text like this</i>	<ul style="list-style-type: none"> Introduces important new terms. Identifies book names. Identifies RFC and Internet draft titles. 	<ul style="list-style-type: none"> A policy <i>term</i> is a named structure that defines match conditions and actions. <i>Junos OS System Basics Configuration Guide</i> RFC 1997, <i>BGP Communities Attribute</i>
<i>Italic text like this</i>	Represents variables (options for which you substitute a value) in commands or configuration statements.	Configure the machine's domain name: [edit] root@# set system domain-name <i>domain-name</i>
Text like this	Represents names of configuration statements, commands, files, and directories; interface names; configuration hierarchy levels; or labels on routing platform components.	<ul style="list-style-type: none"> To configure a stub area, include the stub statement at the [edit protocols ospf area area-id] hierarchy level. The console port is labeled CONSOLE.
< > (angle brackets)	Enclose optional keywords or variables.	stub <default-metric <i>metric</i> >;
(pipe symbol)	Indicates a choice between the mutually exclusive keywords or variables on either side of the symbol. The set of choices is often enclosed in parentheses for clarity.	broadcast multicast (<i>string1</i> <i>string2</i> <i>string3</i>)
# (pound sign)	Indicates a comment specified on the same line as the configuration statement to which it applies.	rsvp { # Required for dynamic MPLS only
[] (square brackets)	Enclose a variable for which you can substitute one or more values.	community name members [<i>community-ids</i>]
Indentation and braces ({ })	Identify a level in the configuration hierarchy.	[edit] routing-options { static { route default { nexthop <i>address</i> ; retain; } } }
;(semicolon)	Identifies a leaf statement at a configuration hierarchy level.	

Documentation Feedback

We encourage you to provide feedback, comments, and suggestions so that we can improve the documentation. You can send your comments to techpubs-comments@juniper.net, or fill out the documentation feedback form at <https://www.juniper.net/cgi-bin/docbugreport/>. If you are using e-mail, be sure to include the following information with your comments:

- Document or topic name
- URL or page number
- Software release version (if applicable)

Requesting Technical Support

Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or JNASC support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the *JTAC User Guide* located at <http://www.juniper.net/us/en/local/pdf/resource-guides/7100059-en.pdf>.
- Product warranties—For product warranty information, visit <http://www.juniper.net/support/warranty/>.
- JTAC hours of operation—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

Self-Help Online Tools and Resources

For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: <http://www.juniper.net/customers/support/>
- Search for known bugs: <http://www2.juniper.net/kb/>
- Find product documentation: <http://www.juniper.net/techpubs/>
- Find solutions and answer questions using our Knowledge Base: <http://kb.juniper.net/>
- Download the latest versions of software and review release notes: <http://www.juniper.net/customers/csc/software/>
- Search technical bulletins for relevant hardware and software notifications: <https://www.juniper.net/alerts/>

- Join and participate in the Juniper Networks Community Forum:
<http://www.juniper.net/company/communities/>
- Open a case online in the CSC Case Management tool: <http://www.juniper.net/cm/>

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: <https://tools.juniper.net/SerialNumberEntitlementSearch/>

Opening a Case with JTAC

You can open a case with JTAC on the Web or by telephone.

- Use the Case Management tool in the CSC at <http://www.juniper.net/cm/> .
- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see <http://www.juniper.net/support/requesting-support.html> .

In order to open a case with JTAC for Junosphere, you must provide the bank serial number. To find the serial number, double-click on the bank icon in Junosphere.

PART 1

Overview

- [Getting Started for Bank Administrators on page 3](#)

CHAPTER 1

Getting Started for Bank Administrators

- [Understanding Junosphere on page 3](#)
- [Understanding Banks on page 4](#)
- [Understanding the Role of the Bank Administrator on page 5](#)
- [Using the Login Page on page 6](#)
- [Changing Your Password on page 7](#)

Understanding Junosphere

Junosphere is a virtualization environment where multiple virtual machines representing network devices can be connected and configured to create network topologies. To use the cloud, you simply upload a topology file defining devices, interfaces, and their interconnections. You also upload standard configuration files for each network device. You can use the resulting virtual network exactly like a physical network.

Junosphere has two types of users: bank administrators and users. This guide is targeted towards those individuals who act as bank administrators in their companies. See the *Junosphere Guide for Users* for user procedures. Bank administrators use the procedures in both guides. Users have access to Junosphere topologies and the virtualization environment. Bank administrators are users with additional privileges of adding more users, assigning users to resources, and dividing capacity among users.

Junosphere stores capacity (virtual machine days) for using the network in banks and sandboxes. Think of a bank as a container of sandboxes. The capacity held by banks is divided into sandboxes, or work areas, where specified users can reserve time to use the cloud.

Junosphere holds one or more topology file sets in libraries for users of a bank, a sandbox, or all public users. A topology file set is made up of a topology file and a collection of configuration files, one for each device described in the topology file.

Junosphere enables customers, partners, developers, and educational institutions to easily experiment, model, and educate by leveraging the flexibility, cost efficiency, and simplicity of a cloud-based delivery model.

There are three Junosphere products designed to satisfy specific user needs:

- Junosphere Lab—Enables you to create and run exact replicas of physical networks within the virtual environment. Users can model, test, and experiment with new features, topologies, or services with no risk and with dramatically reduced costs.
- Junosphere Classroom—Enables you to cost effectively educate students, employees, or partners on the principles and operation of Junos OS, routing protocols, and networking, without the expense of building, maintaining, or operating a physical lab.
- Junosphere Developer—A cloud-based means for developers to test their applications against Junos OS nodes and Junos Space. Junosphere Developer prevents the need to provide free or heavily subsidized test gear to developers, thus speeding the test cycle and reducing barriers to development on Junos OS platforms.

**Related
Documentation**

- [Understanding the Role of the Bank Administrator on page 5](#)
- [Using the Login Page on page 6](#)
- [Changing Your Password on page 7](#)
- [Adding Users to a Customer on page 11](#)
- [Understanding Banks on page 4](#)

Understanding Banks

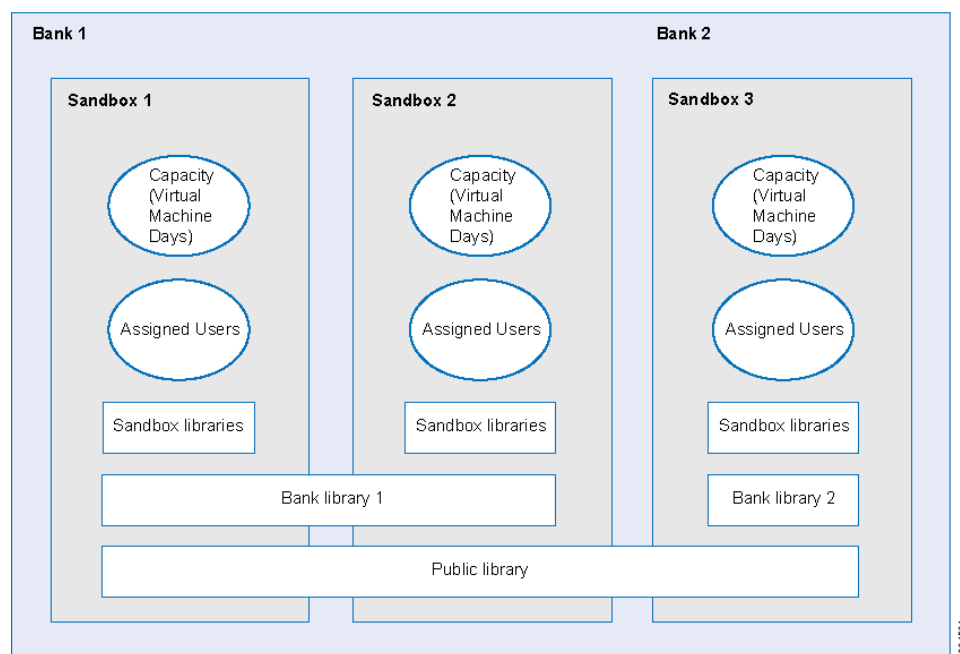
A bank is an amount of prepaid capacity (the number of virtual machine times the number of days) that you can use. Think of a bank as a container of sandboxes. The expiration date of each bank is displayed on the bank's Details tab.

A sandbox is a work area holding capacity and the users assigned to use topology files that are stored in libraries in the sandboxes, as shown in [Figure 1 on page 5](#). Each sandbox can be operated independently to emulate different networks.

The bank administrator assigns the capacity purchased for the bank to the sandboxes and assigns users to the sandboxes and gives them permissions.

The libraries hold one or more topology file sets that create virtual networks. A topology file set is made up of a topology file and a collection of configuration files, one for each Junos OS device described in the topology file.

Figure 1: Components of a Bank



You see only the banks that you control. You usually see only the name of your company as the bank name. You see multiple names only if your company has more than one account.

Related Documentation

- [Understanding Junosphere on page 3](#)
- [Understanding the Role of the Bank Administrator on page 5](#)
- [Using the Login Page on page 6](#)
- [Changing Your Password on page 7](#)
- [Using the Capacity on page 13](#)
- [Assigning Resources to a Sandbox on page 16](#)
- [Scheduling a Time Slot on page 18](#)
- *Junosphere Guide for Users*

Understanding the Role of the Bank Administrator

The role of the bank administrator is to:

- Control your company's use of Junosphere.

You can add users, divide banks into sandboxes, add sandboxes, assign capacity (virtual machines days and connectors) to sandboxes, assign users to sandboxes, and assign permissions to users per sandbox.

- Change or reset a user's password.

- Control user access with permissions.
- Alert your user community.

You can send users their login information and assigned permissions and update users with information about system maintenance and availability.

- Create messages or announcements for each sandbox.
- Inherit all the rights of a user.

By default, you receive all user permissions.

- Add bank public libraries to share with sandboxes.
- Add topology to bank public libraries to share with sandboxes.
- Delete the following:
 - Sandboxes
 - Users assigned to a sandbox
 - Capacity in a sandbox
 - Topologies in a bank or sandbox library
 - Bank administrators
 - Permissions from any user
 - Users assigned to a customer

There can be more than one bank administrator per bank. The default bank administrator is the customer contact listed in the Junosphere order. This default bank administrator can create permissions for additional bank administrators.

Related Documentation

- [Understanding Junosphere on page 3](#)
- [Understanding Banks on page 4](#)
- [Using the Login Page on page 6](#)
- [Changing Your Password on page 7](#)
- [Using the Capacity on page 13](#)
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Using the Login Page

The first bank administrator receives initial login information from the **Junosphere-no-reply** alias after registering an account with Juniper Networks. The first bank administrator can create additional bank administrators, all of whom have the same rights and privileges.

The first bank administrator is responsible for sending new bank administrators an e-mail with the URL to the Login page of the user interface, a username, and a password. The username should be an e-mail address.

To use the Login page:

1. Log in to the user interface. See the *Junosphere Release Notes* for supported browsers.
2. Accept the End User License Agreement (EULA) the first time you log in to Junosphere.
3. Read any messages in the Notification Message box.
4. Click the **Junosphere** icon in the upper left corner of the page.

The Junosphere page appears, showing the **Banks**, **Customer and Users**, and **Administration** icons.

**Related
Documentation**

- [Understanding Junosphere on page 3](#)
- [Changing Your Password on page 7](#)
- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Assigning Permissions on page 20](#)
- [Assigning Resources to a Sandbox on page 16](#)

Changing Your Password

You can change, reset, or recover your password.

To change your password using the Space application:

1. Click the profile icon for User Preference in the upper right corner of the screen.

The Change Local Password screen appears.

2. Type your old password and new password (twice).
3. Click **Change**.



NOTE: Clicking **Change** logs you out of the current session. If you have other sessions running, each session is disabled until you log in again with the new password.

To reset your password:

1. On the login page, click the **Reset** link.
2. Enter your username and click **Reset Password**.

A message appears, telling you that the password has been reset and an e-mail notification has been sent to your address with the new password.

3. Click **OK**.

To recover your password:

- User—Request a reset from your bank administrator (to find your bank administrator, click on the bank name to display the Details page and look under the Administration entry in the list).
- Bank administrator—To reset the password:
 1. Click on the **Customers and Users** icon.
 2. Click on arrow next to the Customer name.
 3. Click the user's name.
 4. Select the password box and enter the desired password.
 5. Confirm the password.
 6. Click the **Save Changes** button.

**Related
Documentation**

- [Understanding Junosphere on page 3](#)
- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Assigning Permissions on page 20](#)
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PART 2

Assigning Resources

- [Assigning Resources to Customers, Banks, and Sandboxes on page 11](#)

CHAPTER 2

Assigning Resources to Customers, Banks, and Sandboxes

- [Adding Users to a Customer on page 11](#)
- [Using the Capacity on page 13](#)
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- [Using the Scheduler on page 19](#)
- [Generating Reports on page 20](#)
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- [Sending Users Their Information on page 22](#)

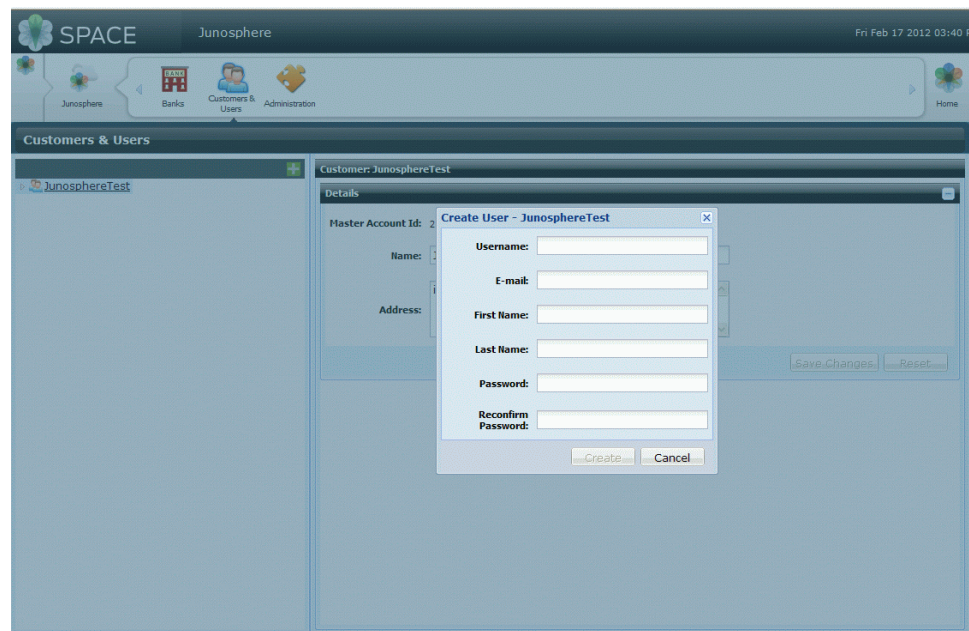
Adding Users to a Customer

To add users you want to have access to the Junosphere resources, as shown in [Figure 2 on page 12](#):

1. Click the **Customer and Users** icon.
2. Right-click the customer name.

The customer name is typically the name of your company. You will see multiple names only if your company has more than one account.

Figure 2: Adding a User



3. Select Add User.

The Add User window appears.

4. Type the user information and click **Create**.

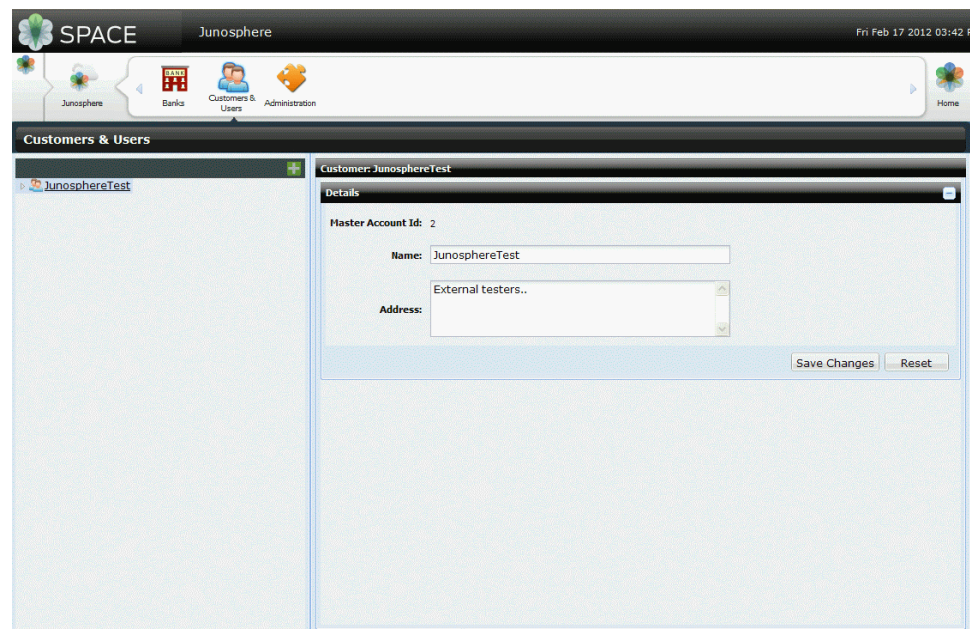


NOTE: When you create a new user, it is strongly recommended to use an e-mail address as the username. This will facilitate system communication with the user.

5. To see the details for a customer:
 - a. Click the **Customer and Users** icon.
 - b. Click the customer name.

The Customer Details page appears, showing the **Name** and **Address** fields, as shown in [Figure 3 on page 13](#).

Figure 3: Customer Details



To delete a user from a customer:

1. Click the **Customer and Users** icon.
2. Click the arrow next to a customer name.
3. Right-click a user and select **Delete User**.

Deleting a user from a customer also deletes the user from banks and sandboxes. You cannot delete a customer (only the Junosphere administrator can do this). You cannot delete a user if they are the only bank administrator for that customer.

Related Documentation

- [Understanding Junosphere on page 3](#)
- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Assigning Permissions on page 20](#)
- [Assigning Resources to a Sandbox on page 16](#)

Using the Capacity

When you purchase time on Junosphere, you purchase virtual machine day capacity (the number of virtual machines times the number of days) for a bank. Capacity is tied to the type of store-keeping unit (SKU) and the Junosphere product that you order. For example, a Junosphere Classroom SKU can only be assigned to a sandbox of the same type. The bank administrators assign capacity from a bank to a sandbox.

You can also purchase capacity to use Junosphere Connector for a number of days. Junosphere Connector enables the Junosphere virtual network to connect to a physical network.

To assign the capacity to sandboxes:

1. Click on the Bank you want to access.
2. Click + on the **Capacity** accordion window to assign the virtual machines or connector for this bank to sandboxes, as shown in [Figure 4 on page 14](#).
3. Right-click a table entry with unassigned capacity and select a sandbox to assign a number of virtual machine days and days of connector use.

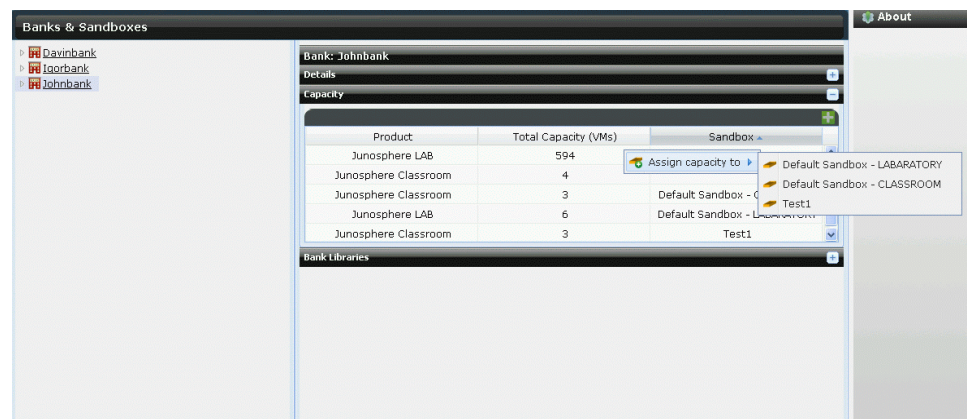


NOTE: When you reserve capacity, it is decremented from the Available Capacity only one hour before the reservation, in case you want to cancel the reservation.



NOTE: Virtual machine capacity expires one year after the date of purchase. Thirty (30) days before the expiration date, Junosphere sends an e-mail to the bank administrator with a reminder of the expiration date and with instructions and a link for reordering capacity.

Figure 4: Assigning Capacity



To delete capacity from a sandbox:

1. Select a bank.
2. Click + on the **Capacity** accordion tab.
3. Right-click a sandbox product and select **Unassign capacity**.

The capacity is returned to the bank. Active capacity cannot be deleted from a sandbox. Available capacity can be deleted any time and returned to the bank.

If a sandbox is scheduled and you want to delete the assigned capacity, you must first open the sandbox, right-click a Reservation entry, and choose **Cancel**. Available capacity can be deleted without canceling the reservation.

Standard reservations can be cancelled up to one hour before the start time of the reservation. Priority reservations cannot be canceled. A priority reservation is a per diem reservation that runs for 30 or more consecutive days. Priority reservations receive priority treatment for virtual machine availability.

**Related
Documentation**

- [Adding Users to a Customer on page 11](#)
- [Understanding Banks on page 4](#)
- [Assigning Permissions on page 20](#)
- [Assigning Resources to a Sandbox on page 16](#)
- [Buying Capacity on page 15](#)

Buying Capacity

There are two ways to replenish your capacity: online using a credit card and by contacting your Juniper Networks representative.

To buy capacity online:

1. Go to learningportal.juniper.net or click the **Buy more capacity** link on the login page.
A page appears that lists the types of capacity that you can buy: Classroom and Lab.
2. Click the link for the type of capacity you want to buy.
The page for that capacity appears, listing the purchase information for that type of capacity.
3. Click the **Purchase** button.



NOTE: Virtual machine capacity expires one year after the date of purchase. Thirty (30) days before the expiration date, Junosphere sends an e-mail to the bank administrator with a reminder of the expiration date and providing instructions and a link for reordering capacity. This e-mail may go to spam/junk e-mail folders. Outlook users can fix this problem by going to their spam/junk e-mail folder, selecting the e-mail, selecting Actions → Junk E-mail → Add Sender to Safe Senders List. This automatically adds junosphereadmin-noreply@juniper.net to the Safe Senders tab of the Junk E-mail Options dialog box. Your Outlook Administrator may have an alternative way of preventing these e-mails from going to your spam/junk e-mail folder. Users of other email applications should work with their e-mail administrators to fix this issue.



NOTE: Every time you add capacity to a bank, the expiry date of the bank changes to one year from the date and time of the latest assignment of capacity to the bank.

Related Documentation

- [Using the Capacity on page 13](#)

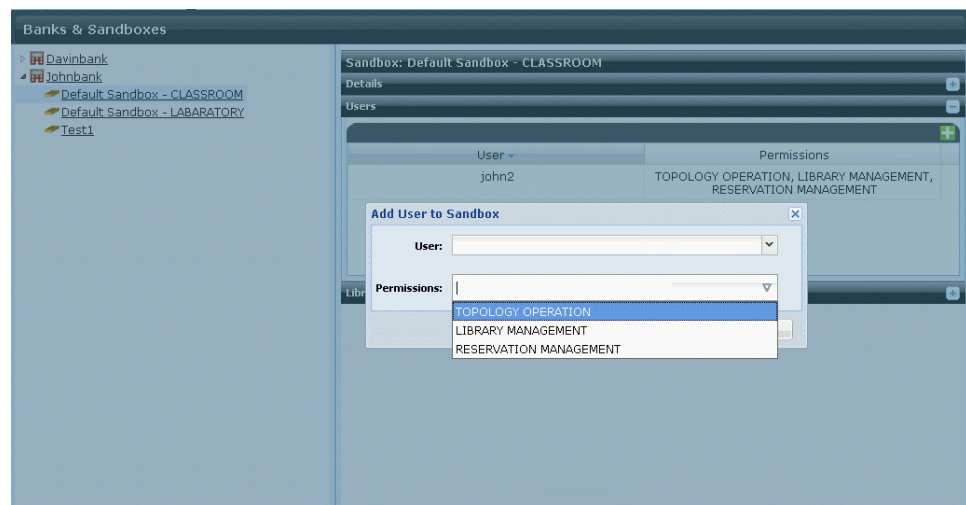
Assigning Resources to a Sandbox

You use sandboxes to divide a bank's capacity and assign users to use that capacity.

To assign resources to a sandbox:

1. Click the arrow next to a bank to display the sandboxes in that bank.
2. Add more sandboxes:
 - a. Right-click a bank. The **Add Sandbox** window appears.
 - b. Enter a name and description.
3. Add users to a sandbox and assign permissions, as shown in [Figure 5 on page 16](#). You can add users to more than one sandbox.

Figure 5: Add User to a Sandbox



- a. Click the + sign on the **Users** tab to display a list of users.
- b. Click the green + sign to add a user. The **Add User to Sandbox** window appears.
- c. Click the **User** field and select a username from the drop-down menu.
- d. Click the arrow on the permissions field to assign the permissions of Topology Management (start or stop topologies), Library Management (create and delete sandbox libraries), and Reservation Management (reserve time and capacity).

- e. Select each permission that you want to assign to the user for this sandbox.
- f. Click **Add** to apply the permission to the user.

Only the bank administrator and Junosphere administrator can delete sandboxes. You cannot delete a sandbox with an active topology.



NOTE: Deleting the sandbox also deletes all the libraries within the sandbox and the topologies within those libraries.

To delete a sandbox:

1. Right-click on a sandbox name.
2. Click on the **Delete Sandbox** box.
3. Verify that you want to delete the sandbox.

Related Documentation

- [Adding Users to a Customer on page 11](#)
- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
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- [Using the Scheduler on page 19](#)

Deleting Users from a Sandbox

To delete a user from a sandbox:

1. Click the arrow next to a bank to display the sandboxes in that bank.
2. Select a sandbox.
3. Click the + sign on the **Users** tab to display a list of users.
4. Right-click on a username and select **Remove**.

To delete an inactive sandbox, right-click a sandbox and select **Delete Sandbox**. To delete a sandbox, no topology can be active in it. Unused capacity is returned to the bank. Deleting a sandbox also deletes any messages about it in the Message Center.

Related Documentation

- [Adding Users to a Customer on page 11](#)
- [Understanding Banks on page 4](#)
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Scheduling a Time Slot

You must have reserved time in the Junosphere cloud for a sandbox before you can start a topology. Only a bank administrator or a user with Reservation Management permission can reserve time. Also, the bank administrator must assign capacity (virtual machine days) to the sandbox. Once capacity is assigned, you can plan your reservation by knowing how many virtual machines you will use, the start date, and the number of days you will use the virtual machines.

The formula to define the capacity required for your reservation is: **Number of days x Number of virtual machines.**

To schedule a time slot when you want to build a topology in the sandbox:

1. Click a sandbox to display the **Details** window.
2. Click **Reservations** to display the **Add Reservations** window.
3. Add the number of virtual machines, a start date, and the number of days for the reservation.

The time displayed is shown as local time based on your browser time clock, starting at 12:01 AM. The virtual machine time will decrement from your sandbox capacity. You have up to one hour ahead of the time slot to cancel your reservation without penalty. All virtual machine days time is returned to the sandbox.

If the desired time is not available, Junosphere can provide you suggested open reservation times. If you want to ensure full availability at any time, you can use a priority reservation (book the required number of virtual machines for intervals of 30 days or more) in advance.



NOTE: You cannot make a reservation in any sandbox in a bank where the end date/time or the reservation goes past the expiration date of the bank.

A bank administrator can review a report of your Pending, Active, and Expired reservations by selecting Administration>Reports>Scheduler from the top menu.

See the *Junosphere Guide for Users* for more information about reservations.

Related Documentation

- [Adding Users to a Customer on page 11](#)
- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Assigning Permissions on page 20](#)

- [Assigning Resources to a Sandbox on page 16](#)
- [Using the Scheduler on page 19](#)

Using the Message Center

The Message Center displays operational messages for users of this sandbox. A bank administrator or Junosphere Administrator can open the sandbox, select the Message Center, and post a message.

Related Documentation

- [Adding Users to a Customer on page 11](#)
- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Deleting Users from a Sandbox on page 17](#)
- [Assigning Permissions on page 20](#)
- [Scheduling a Time Slot on page 18](#)
- [Using the Scheduler on page 19](#)

Using the Scheduler

You can use the Scheduler report to review All, Active, Pending, or Expired reservations.

To view the Scheduler report:

1. Click **Administration** in the Junosphere toolbar.
2. Click **Reports** and then **Scheduler**.
3. Click the All, Active, Pending or Expired tab.
4. View the following information about the reservation:
 - Reservation ID
 - Number of virtual machines
 - Start date and time
 - Number of days
 - Bank
 - Sandbox

You can click on the Bank and Sandbox icons to go to the bank and sandbox.

Related Documentation

- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)

- [Assigning Permissions on page 20](#)
- [Assigning Resources to a Sandbox on page 16](#)
- [Scheduling a Time Slot on page 18](#)
- [Creating a Bank Library on page 21](#)

Generating Reports

Junosphere enables you to export data in tables to a .csv file that can be displayed in a spreadsheet. There are four places where you can do this. Each location has an **Export** button at the bottom of each tab that enables you to download the information in a .csv file.

These four places are:

1. From the top menu, select Administration > Reports > Scheduler. Four tabs are displayed: All, Active, Pending, and Expired. Each tab displays data in a table.
2. From the top menu, select Administration > Reports > Capacity. The displayed table includes data about banks and sandboxes.
3. The Activity Log tab of a bank.
4. The Activity Log tab for a sandbox.

Assigning Permissions

As a bank administrator, you assign or delete the following user permissions within the context of a sandbox:

- Topology Management (start or stop topologies)

You might want to restrict the users who can start and stop a topology.



NOTE: There can only be one active topology at a time in a sandbox.

You might want one individual to control this function. You might want to only start topologies with a certain number of virtual machines to preserve capacity.

In a classroom situation, you might want only the instructor to have start or stop privileges. Students can then join an active topology.



NOTE: All users of a sandbox can join an active topology. Multiple users using an active topology do not consume more capacity than one user since they are all sharing.

- Library Management (create and delete sandbox libraries)

This lets you add new libraries to the sandbox and delete them.

- Reservation Management (reserve time and capacity)

You must have reserved time in the cloud before you can start a topology in a sandbox. Only a bank administrator or a user with Reservation Management permission can reserve time. You might want to restrict Reservation Management to certain individuals to assign the time slot to sandboxes.

To change or delete a user's permission in a sandbox:

1. Select a sandbox.
2. Click **Users**.
3. Right-click a user and select **Edit Permissions**.
4. Change permissions as needed.

**Related
Documentation**

- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Assigning Resources to a Sandbox on page 16](#)
- [Scheduling a Time Slot on page 18](#)
- [Creating a Bank Library on page 21](#)

Creating and Deleting a Bank Library

Only a bank administrator can create a bank library to which all users of the bank will have access. Bank administrators can pre-populate the library with topologies for their users. You might allow your users to see a common set of topologies regardless of the sandbox they are in.

To create a bank library:

1. Select the **Library** accordion tab.
2. Click the green + sign to create a new library.
3. Click the green + sign on a library name to display the library contents.
4. Click the green + sign under **Description** to upload .tgz configuration file sets into the library.



.....
NOTE: If the file is not formatted as .tgz, it cannot be uploaded.
.....

To delete a bank library:

1. Click the **Libraries** accordion tab.
2. Click the **Bank** tab to display the bank libraries.

3. Click on the **plus** sign on a library name accordion tab to display a tab with a minus sign in a red circle.
4. Click on the minus sign in a red circle to delete the library.
5. Confirm the deletion.

Related Documentation

- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Assigning Permissions on page 20](#)
- [Assigning Resources to a Sandbox on page 16](#)
- [Scheduling a Time Slot on page 18](#)

Sending Users Their Information

Junosphere facilitates communications between users and administrators through the real-time messaging tool. The bank and each sandbox contain a group e-mail alias that can be used to communicate special maintenance actions, availability of new topologies, requests for capacity, and other bank/sandbox activities. This e-mail alias appears on the Details tab of both the bank and the sandbox.

Once users have been created, send e-mails to your users telling them that they can use Junosphere.. Share their username and password information, as well as any specific topologies or task instructions you have for your use case.



NOTE: Make sure that all users have the correct e-mail address in their user profiles. Otherwise, they will not receive e-mail messages that are sent by bank administrators or other users in the bank and sandbox.

Related Documentation

- [Understanding Banks on page 4](#)
- [Using the Capacity on page 13](#)
- [Assigning Permissions on page 20](#)
- [Assigning Resources to a Sandbox on page 16](#)
- [Scheduling a Time Slot on page 18](#)
- [Creating a Bank Library on page 21](#)

PART 3

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