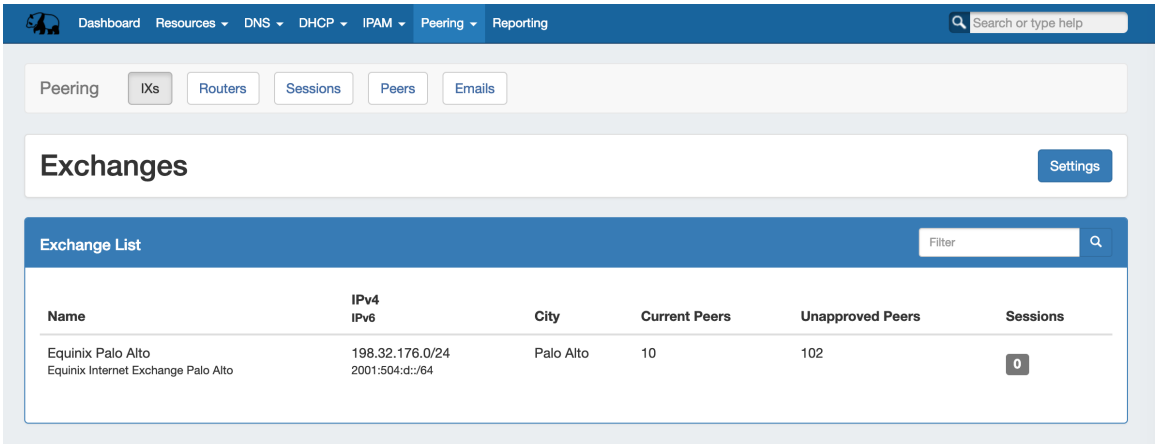
Peering v2

Peering

The **Peering** tab displays allows you to add and manage exchanges, routers, sessions, and peers. Admin users may view and manage recent emails for a company peering email address, and associate email communications with ProVision peers.



ProVision's **Peering** tab has five subtabs to manange various peering functions: **IXs** (Exchanges), **Routers**, **Sessions**, **Peers**, and **Emails**.

The **IXs** tab shows the exchange list. From here, you can edit exchange settings and view, manage, and mark peer status and communications via the exchange details page.

The **Routers** tab shows the list of routers in ProVision. From here, you can add new routers or manage existing routers.

The **Sessions** tab lists the current sessions in ProVision. You may also add new sessions, or click on a session name to show session details, from which you may configure and manage each session.

On the **Peers** tab, you can view and manage session peers.

In the **Email** tab (Global Admins only), recent email communications to and from a company peering email account may be managed.

- Peering
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  - Add ASN(s) to ProVision
  - Add PeeringDB Credentials
  - Additional Options for Local Installations
- Peering Workflow
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    - 1) Add Router(s)
    - 2) Add Peer Groups
      - From Peering "Router Details" Page:
      - From the Peer Group Gadget:
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      - Configure Sessions Individually by Exchange / Session:
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      - New Peer:
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      - Incoming Peer Request:
    - 6) Repeat for new Routers, Sessions, and Peers.
- Additional Information

Peering Overview

In ProVision's **Peering** tab, you can add multiple exchanges, routers, sessions, view peer details, as well as send and receive peering requests. ProVision directly interfaces with PeeringDB's API to update exchange and peering data, to ensure up to date information.

This requires Peering users to have a PeeringDB account, and for the account credentials to be set in ProVision.

> **Peering Setup - Local Installations**
>
> If you are using a locally hosted instance of ProVision, verify that you have followed the instructions on the Local Installations: Peering Setup page to set up Peering for your instance.

Set up ProVision Peering

Two components need to be set up before you can begin to do common peering tasks in ProVision - set at least one ASN, and set PeeringDB account credentials.

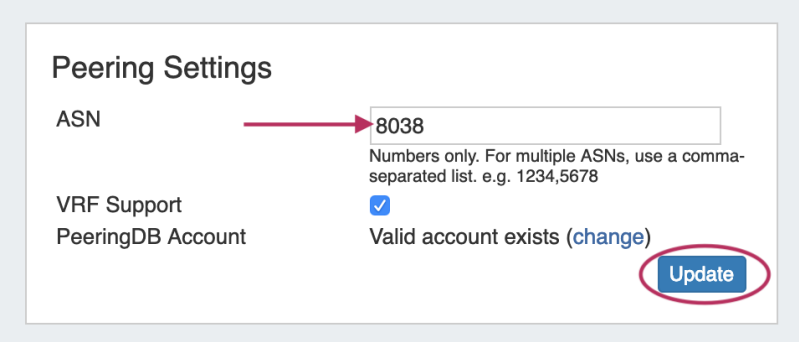
Add ASN(s) to ProVision

Add at least one ASN to ProVision from either the **Admin** **Admin Preferences** page, or via the **Peering** Tab -> Exchange Settings.

- Click one of the options below for details:

  From the **Admin Preferences** page, go to **Peering Settings**.

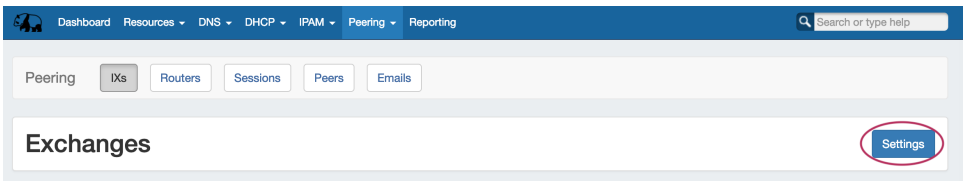
  Next to "ASN", enter the ASN(s) you want to track in ProVision.



  For multiple ASNs, separate each ASN with a comma (e.g. "1234, 5678").

  When done, click "Update" to save your changes.

  From the **Peering** Tab, go to the **IX's** subtab and then click "Settings".



  Peering Settings will display.

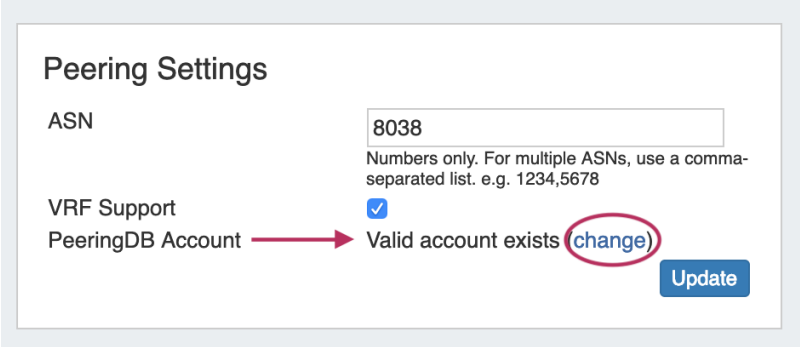
  Under the "Config" section, you'll see a field to add an ASN - fill in the desired ASN(s), and click "Add".

Add PeeringDB Credentials

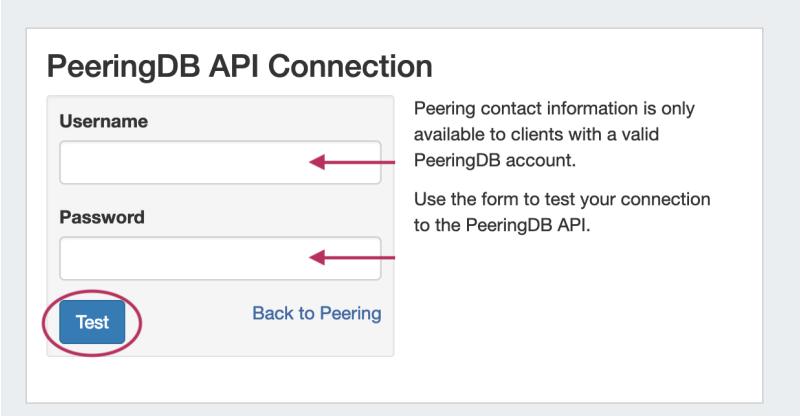
Both Cloud customers and local installations may set the PeeringDB credentials in the ProVision **Admin** **Admin Preferences** page, or via the **Peering** Tab -> Exchange Settings.

- Click one of the options below for details:

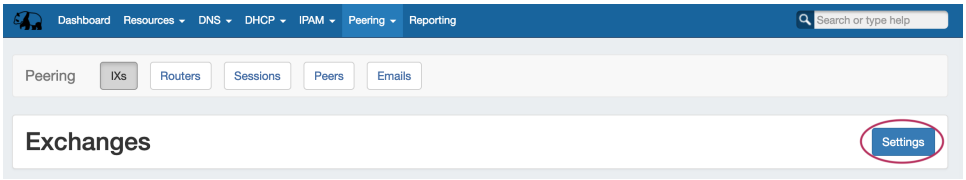
  From the **Admin Preferences** page, go to **Peering Settings**. The current PeeringDB Account status will display next to "Peering DB Account". To set or change the account, click the "change" link. You will go to the **PeeringDB API Connection** page to test and set the account.



  Enter the PeeringDB account username and password, then hit "Test" - the connection will be tested. If successful, you can then save the credentials.



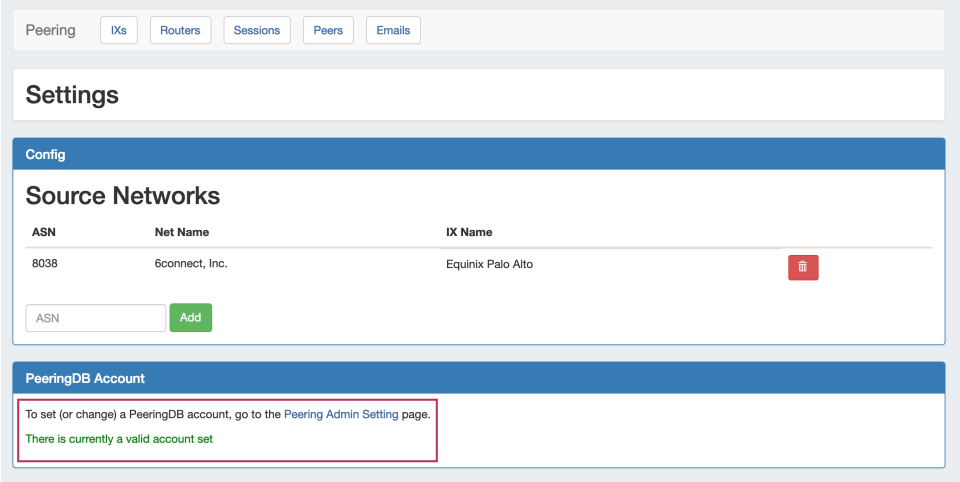
  From the **Peering** Tab, go to the **IX's** subtab and then click "Settings".



  Peering Settings will display.

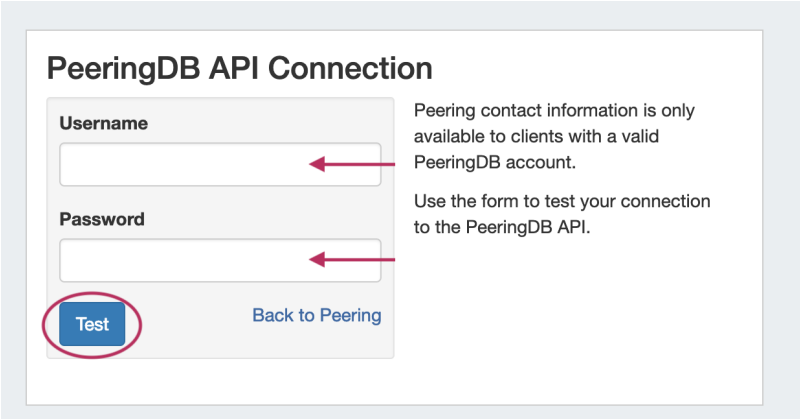
  Under the "PeeringDB Account" section, you will see account status instructions to set or change the Peering DB Account.

  Click on the "Peering Admin Settings" link to go to the **PeeringDB API Connection** page to test and set the account.



This opens the **PeeringDB API Connection** page.

Enter the PeeringDB account username and password, then hit "Test" - the connection will be tested. If successful, you can then save the credentials.



Additional Options for Local Installations

Local Installations have an additional option of hard-coding the credentials in ProVision's globals.php file.

Additional Peering constants may be added into globals.php to change the PeeringDB URL between the main and beta site (some users may find the beta site to have faster response times), and to adjust the PeeringDB cache TTL.

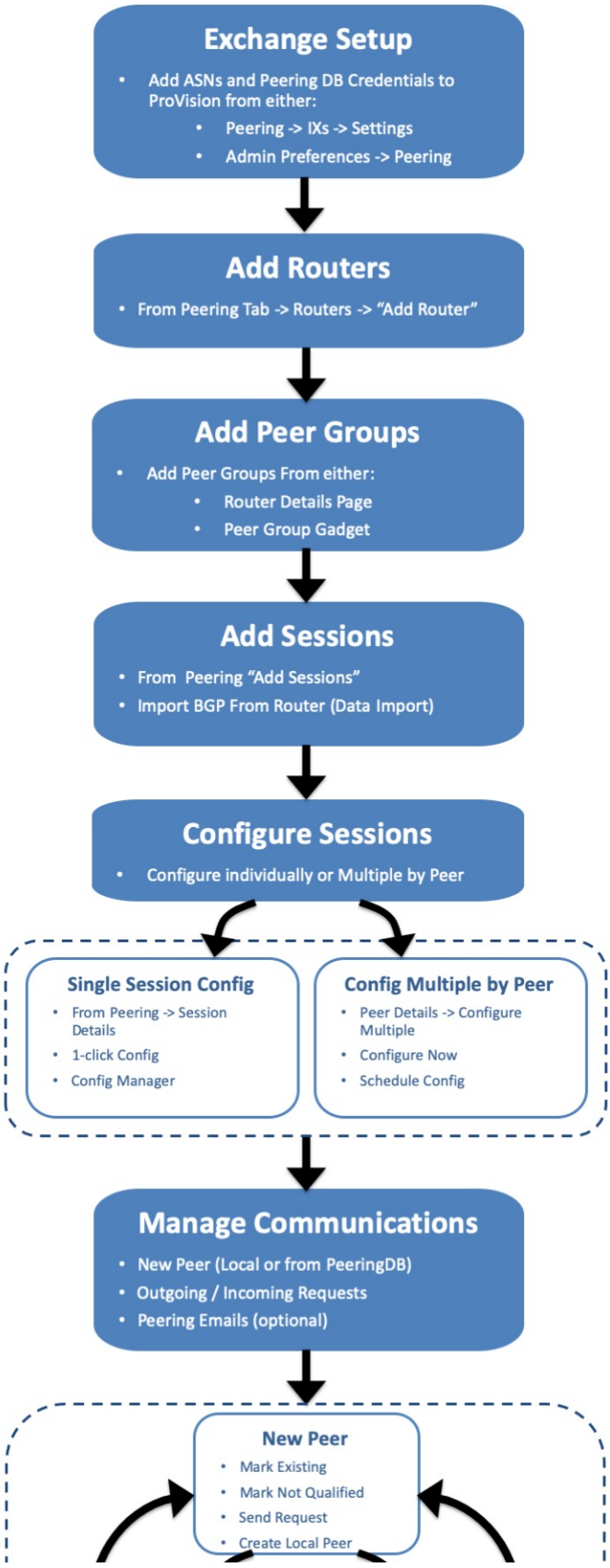
For real-time updates, TTL may be set to 0. However, some users may experience severe lag with a TTL = 0; we recommend using a 10 to 15 minute or greater TTL if this occurs.

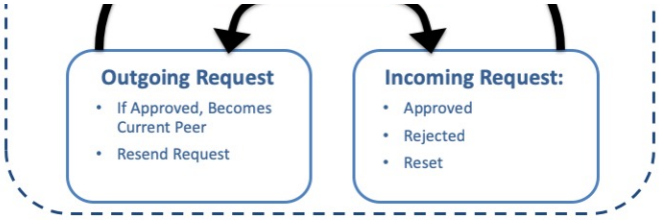
For details on adding / editing these peering constants, see Local Installations: Peering Setup.

Peering Workflow

After the initial Peering setup is complete (Adding ASNs and a Peering DB account), you can begin to work with the rest of the Peering tabs, including routers, peer groups, sessions, managing peers, and communications.

PEERING WORKFLOW





Peering Workflow Steps

Below is an outline of the steps needed for a basic workflow process.

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      - From Peering "Router Details" Page:
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- Additional Information

1) Add Router(s)

Adding a router is the fundamental base and first step of working with peering in ProVision. Routers may be added through the "Add Router" button in the **Peering** Tab.

For a detailed breakdown of this task, see Peering Routers.

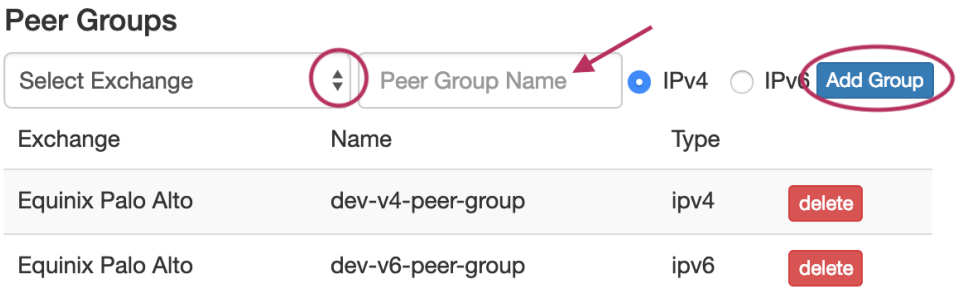
2) Add Peer Groups

Associating the router with a peer group is necessary to link the router to a particular exchange. You may add the Peer Group information either in the "Router Details" page in Peering, or in the Peer Group Gadget prior to adding sessions.

From Peering "Router Details" Page:

Go to **Peering** Tab Routers. Click on the desired router to view the **Router Details** page. (See Peering Routers)

Here, you may add and delete and Peer Groups associated with the router - select the Exchange, Add the Peer Group Name, select the IP type, and click "Add Group".

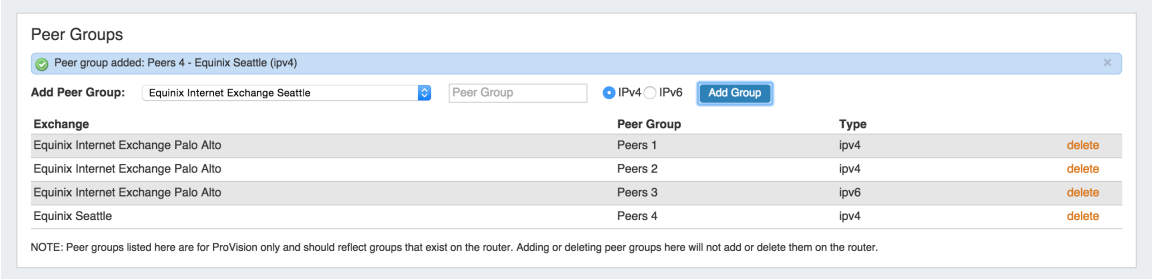


From the Peer Group Gadget:

If you need to add a Peer Group to an existing router, you may use the Peer Group gadget.

The Peer Group Gadget allows you to add peer groups for IPv4 and IPv6 for a selected exchange from a router's Resource Entry page.

To do this, simply select the exchange, type in a Peer Group name in the text box, select IPv4 or IPv6, the click "Add Group".



Peer Groups added from this gadget will be then be available to select in the "Add Session" dialog box in the **Peering** tab.

3) Add Session(s)

After Routers and Peer Groups have been set up, the next step is Adding Sessions to ProVision.

You may add a new session through the "Add Session" button in the **Peering** tab, or you may Import Peering Sessions from an existing router.

Importing sessions requires Admin level permissions, and is accessed through the **Data Import** Tab in the Admin section of ProVision.

4) Configure Sessions

Once a session has been added, you will see it in the session list. For a newly added session, the status will show as "Not Configured". There are a few options to configure sessions:

Configure Sessions Individually by Exchange / Session:

You may configure the session through 1 click config or the Config Manager, accessed by clicking session and opening the Session Details page. 1 click config uses the default config settings, while the Config Manager allows you to manually create one time use unique settings.

Configure Sessions by Peers:

From the **Peer Details** Page, you can choose to create or configure multiple sessions.

With this option, you can view and configure all sessions for that Peer from one menu (as opposed to the Sessions list configure option, which configures individual sessions by Exchange).

Clicking on "Configure Multiple Sessions" button opens a page showing the available exchanges with routers and options to change the router, peer group, and Peer type.

Select the checkmarks for the desired sessions to configure. As a shortcut, you may also check the "Select all exchanges" option to select all sessions under all exchanges, or, check "Select all networks" next to the exchange header to select all sessions in that exchange. From there, deselect items as needed.

When your selections have been made, click "Configure Now" to immediately configure all selected sessions, or you may select "Schedule" to automatically create sessions and schedule a configuration to occur in one hour (by default). The scheduled configuration may be edited through the **Scheduler** Tab.

5) Manage Communications

Once a session has been added with a peer, you will see the peer listed Peer List under the **Peers** tab.

You'll also be able to manage communications from Exchange Communications.

You will see the list of Peers, their ASNs, Name, Request Status, Notes (log), and the Action Menu (wrench icon).

From here, you may send peer requests, mark peer status, and view notes on previous actions. The available options and flow depends on the Peer Status and whether a request is Outgoing or Incoming.

New Peer:

For an existing peer that was just added, you can mark the peer as:

a) Mark Existing Peer, or,

b) Mark Not Qualified

You may also choose to send an outgoing peer request.

Outgoing Peer Request:

To send out a peer request, select "Send Request" from the Action Menu (wrench icon) . This sends an initial peering request email to the peering coordinator for that peer. The email template pre-populates data based on peeringdb data (To address, Subject line and Peering exchange information). You have the chance to edit the email prior to sending. If Peering Emails are set up in ProVision with the same email address, a copy of the request will be saved to the Sent box.

Once a Request has been sent out, it can proceed two ways:

a) The request is accepted and Peering is established (becomes current peer)

b) The request is not accepted / responded to, and the "Resend Request" option becomes available, allowing you to repeat the request.

Incoming Peer Request:

If a request is received, you have a few options from which you may mark the peer from the Action Menu:

a) If you accept the request, you may "Mark Approved" and Peering is established (becomes current peer).

b) You may "Mark Rejected", in which case a peer status is marked rejected.

c) "Reset Status" is available at various points in the communications process, if you want to reset the peer back to the beginning state and re-establish a different status condition. This reopens the initial options from which you may select a different peer mark.

d) "Resend Request" may be available to resend a request

If Peering Emails are set up in ProVision, and the message was sent to the account as set there, the incoming request will be recieved to the ProVision inbox.

6) Repeat for new Routers, Sessions, and Peers.

To add additional Routers, Sessions, and Peers repeat steps 1, 2, or 3, and manage your newly added sessions and peer communications similarly with steps 4 and 5.

Additional Information

- Peering Exchanges
- Peering Routers
- Peering Sessions
- Managing Peers
- Peering Emails
- Peering Templates