

IP Import from CSV

Simple Upload / Import from CSV

The Upload / Import from CSV tool is used if you have a simple .csv file with IP block information, such as CIDR, mask, ASN, RIR, etc. It is accessed from the Data Import Tab from the Admin section.

Data Import

Import Tools

Information on preparing data for import and using each import tool is available at <https://docs.6connect.com/display/DOC/Importing+Your+Data>.
Sample import templates are available [here](#).

Resource Import:	DNS Import:
Simple Upload/Import from CSV	BIND Zone Upload/Import
Resource Import Tool *Beta*	PowerDNS Zone Import
IP Import:	InfoBlox Zone Import
Upload/Import from CSV	NS One Zone Import
Import from RIR	Dyn DNS Zone Import
Peering Import	DNSMadeEasy Zone Import
Import BGP Sessions	Route53 Zone Import
	IPPlan Zone Import

To import your IP block information, follow the following steps:

- [Methodology](#)
- [Before you Begin: Prepare your Data for Import](#)
- [Import Your Data](#)
 - [Step 1: Create a new IP Import Job](#)
 - [Step 2: Define Columns](#)
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 - [Step 3: Reviewing Data](#)
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Methodology

The Import from CSV tool will create Top-Level Aggregates and place blocks under those aggregates based on the following method:

First, the importer will parse through the provided data, order all blocks from largest to smallest, then attempt to split the largest block out of an existing block matching the IP space and RIR. If that fails (no larger block exists), then that block is added in the system as its own Top-Level-Aggregate. Subsequent blocks will undergo the same process.

This method ensures that your list of IP blocks does not need to be organized in any particular order.

If your import includes a large number of small blocks (/30s, /32s), be sure you've included at least one large block which encompasses them (/24, /22). This will ensure that the smaller blocks are neatly organized under the larger block, rather than imported as their own Top-Level Aggregates.

Before you Begin: Prepare your Data for Import

The Upload / Import from CSV tool requires only a .csv file for importing.

Be sure to review ["Preparing Data for Import" on the Importing your Data page](#) before you begin. Verify that your .csv is correctly parsed and cleanly formatted with your IP block information (using your choice of the available field list shown below), and is UTF-8 encoded for best results.

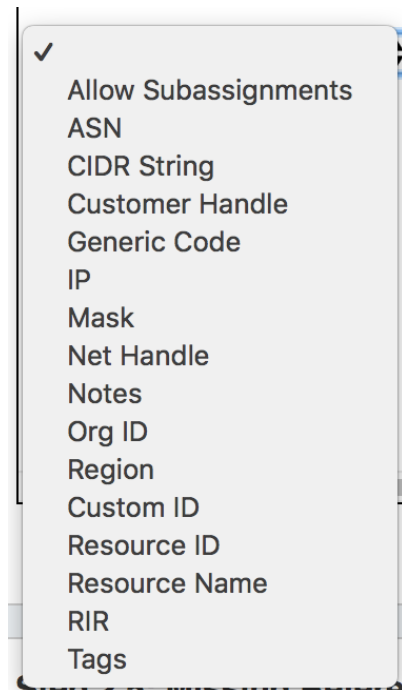
Common normalization steps required for IP imports include:

- Remove any empty rows in the data range
- Remove any empty columns in the data range
- Remove stray data from inside and outside the data range, such as:
 - notes, comments, and placeholder text as field values, when not set as their own data column
 - nested secondary information located in additional rows under a primary record
- Ensure proper data formatting
 - Check for data formatting errors - a common issue is leading zeros being dropped from a ZIP field when a file is opened. Re-specify format as needed.
 - Ensure each field has consistent formatting for values

Data Encoding Format

To ensure correct importing of any special characters, make sure to use UTF-8 encoding for your CSV file!

This tool supports the following fields:



Required Fields

For IP Import from .csv, the following fields are REQUIRED:

- CIDR String OR both IP and mask
- RIR OR a selected default RIR

All other fields are optional.

[Import Your Data](#)

Step 1: Create a new IP Import Job

Navigate to the **Data Import Tab** from the **Admin** button. Select "Upload / Import from CSV" under "IP Import".

Import Tools

Information on preparing data for import and using each import tool is available at <https://docs.6connect.com/display/DOC/Importing+Your+Data>.
Sample import templates are available [here](#).

Resource Import:

- Simple Upload/Import from CSV
- Resource Import Tool *Beta*
- IP Import:**
 - Upload/Import from CSV**
 - Import from RIR
- Peering Import
 - Import BGP Sessions

DNS Import:

- BIND Zone Upload/Import
- PowerDNS Zone Import
- InfoBlox Zone Import
- NS One Zone Import
- Dyn DNS Zone Import
- DNSMadeEasy Zone Import
- Route53 Zone Import
- IPPlan Zone Import

Create a Job Name and Description for the import. This is especially useful to keep track of progress in cases the data arrives from multiple sources, or will require multiple stages of manual review.

Select the .csv file that you prepared above by selecting the "Choose File" button, and browsing to the correct file location. Then hit "Start Import".

IP Import

[Clear](#)

Step 1: New Import

The IP Import accepts CSV files in a variety of configurations and formats. For an example file, [click here](#).
Please make sure all data files are encoded with UTF-8 for best results.

Job Name:

Sample IP Import

Description:

Sample

Input File:

[Choose File](#) IP-import-Small QA Test.csv

File must be in CSV Format.

[Start Import](#)

Working with Large or Multiple Data Sets

Although you cannot add new files to an existing job, for jobs with multiple sources for data (which may have different formatting), you can simply create separate jobs and descriptions for each source - no need to manually combine the data into one file before importing. The Import tool's mapping and editing functions will allow for the data to be reconciled in ProVision.

For large data sets where multiple stages of manual review might be needed, you can create a new job using the same set of data files in order to work in parallel on a different portion of the data.

After importing, the new job will appear under the "Existing Jobs" section. To continue working with this job, select it from the list (by clicking on the job name) and the next step will appear on the page.

Data Import

Job List

Existing Jobs

Test, description: qa test, initial upload: 12-08-2021 3:53 PM, last modified: 12-08-2021 3:53 PM	Delete
Tester, description: test, initial upload: 16-08-2021 2:15 PM, last modified: 16-08-2021 2:15 PM	Delete
Sample IP Import, description: Sample, initial upload: 05-01-2022 1:55 PM, last modified: 05-01-2022 1:55 PM	Delete

Step 2: Define Columns

Using the dropdown menu above each data field, select the appropriate definition for each of the imported columns.

- **CIDR or IP/mask** fields must be provided
- **Notes, Tags, and Regions** may have multiple columns associated with the data.
- If you do not have a defined **RIR** column, you must select a default RIR to associated the blocks to.

Other columns which do not apply under the available definitions should be left as blank, and will be skipped during the upload process.

Step 2: Define Columns

The Import process requires you to enumerate the function of the columns in the provided CSV. There must be either a CIDR column or both an IP and a Mask column. There can be multiple Notes, Tags, and Regions fields. Either a defined RIR column or a Default RIR is required.

Custom ID	IP	Mask	Notes	RIR	Region	Tags
ID	IP Block	subnet	Notes			
543	10.2.3.0	/24	Internal space			
544	10.5.3.2	/32	Customer assign			

Tag Delimiter:

Default RIR: 1918

Next

Step 2: Define Columns

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Custom ID	IP	Mask	Notes	RIR	Region	Tags
ID	IP Block	subnet	Notes	RIR	Region	Tags
543	10.2.3.0	/24	Internal space	1918	Boston, MA	Customer,Cable
544	10.5.3.2	/32	Customer assign	ARIN	ASH1	

Tag Delimiter:

Default RIR: 1918

Next

When completed, hit "Next".

Step 2.5: Missing References

If references exist in your data that do not currently exist in ProVision (such as new tags or resources) the import tool will alert you to the missing references, and give you the option to create those references in ProVision. If you wish to add these elements, select the checkboxes next to the element and click the "Add (Element name)" button below.

Header Rows

If your .csv has a header row as the first line, that row may give information that produces a missing reference notice - such as "Tag", "Region", "Block", and so forth.

If this is the case, simply uncheck that item and add only the desired references.

Step 2.5: Missing References

The importer has detected references which do not currently exist in the system. Rows referencing non-existent data cannot be imported. Please select the valid entries from the sections below and they will be added to the system before the formal import begins.

Tags

☐ Tags

Add Tags

Regions

☐ Region

☒ ASH1

Add Regions

In this example, we get a notification that we are missing a tag named "Tags". However, we know by looking at our data that is simply an item that was part of the header line in the .csv, so we want to bypass this step.

Step 3: Reviewing Data

After supplying the file and defining columns, a review step is provided. Records with errors will show as color coded, and can be filtered to be viewed by All, Valid, Warnings, Invalid, or Ignored.

From here, the records can be edited or ignored. Select "Ignore" for records that you do not wish to import at this time. Records that are Ignored or Invalid will automatically be skipped.

Header Rows

If your .csv has a header row as the first line, that row will be shown as the first record in review data as well. Simply click "Ignore" on the first record to disregard the row.

If warnings or invalid entries are found, you may edit the data by clicking the "Edit" button.

Step 3: Review Data

Please review the data for correctness. Invalid and ignored rows will be skipped.

View: All Valid Warnings Invalid Ignored Hide

IP Block/subnet :: RIR	Invalid CIDR String. RIR does not appear in internal RIR list. Resource ID does not exist. Region does not appear in internal Region list. Tag 'Tags' does not appear in internal Tags list.	Enable
10.2.3.0/24 :: 1918	Resource ID does not exist. Region does not appear in internal Region list.	Edit Ignore
10.5.3.2/32 :: ARIN		Edit Ignore

Here you can edit the invalid field, or add /change information for any other available field.

Step 3: Review Data

Please review the data for correctness. Invalid and ignored rows will be skipped.

View: All Valid Warnings Invalid Ignored Hide

IP Block/subnet :: RIR

Invalid CIDR String. RIR does not appear in internal RIR list.
Resource ID does not exist. Region does not appear in internal Region list. Tag 'Tags' does not appear in internal Tags list.

Enable

Resource: Jackson Business Plaza x

View Save

CIDR: 10.2.3.0/24

RIR: 1918

Region:

Org ID:

Tags: QA Test

Notes: Internal space

Subassignments: ☐

ASN:

Customer Handle:

Generic Code:

Net Handle:

10.5.3.2/32 :: ARIN

Edit Ignore

After editing, hit "Save". If the edits are valid, the background color for the data row will be white.

Continue reviewing and editing data as desired. When done, proceed to Step 4.

Step 3: Review Data

Please review the data for correctness. Invalid and ignored rows will be skipped.

View: All Valid Warnings Invalid Ignored Hide

IP Block/subnet :: RIR

Invalid CIDR String. RIR does not appear in internal RIR list.
Resource ID does not exist. Region does not appear in internal Region list. Tag 'Tags' does not appear in internal Tags list.

Enable

10.2.3.0/24 :: 1918

Edit Ignore

10.5.3.2/32 :: ARIN

Edit Ignore

Step 4: Import Data

When you have reviewed the data import job for accuracy, hit the Execute Import button. All rows which are disabled, invalid, have warnings, or were previously successful will be passed over. Successful import rows will be marked as such.

Execute Import

Step 4: Execute Import

When the review step is completed, hit the "Execute Import" button. A progress bar will appear to show progress and note errors if they occur.

Step 4: Import Data

When you have reviewed the data import job for accuracy, hit the Execute Import button. All rows which are disabled, invalid, have warnings, or were previously successful will be passed over. Successful import rows will be marked as such.

Execute Import

When the bar reaches 100%, the import is complete. The Data Review section will show which data rows were successfully imported.

Step 3: Review Data

Please review the data for correctness. Invalid and ignored rows will be skipped.

View: All Valid Warnings Invalid Ignored Hide

IP Block/subnet :: RIR	Invalid CIDR String. RIR does not appear in internal RIR list. Resource ID does not exist. Region does not appear in internal Region list. Tag 'Tags' does not appear in internal Tags list.	Enable
10.2.3.0/24 :: 1918	Row Successfully Imported	Edit Ignore
10.5.3.2/32 :: ARIN	Row Successfully Imported	Edit Ignore

Step 4: Import Data

When you have reviewed the data import job for accuracy, hit the Execute Import button. All rows which are disabled, invalid, have warnings, or were previously successful will be passed over. Successful import rows will be marked as such.

Execute Import

Current Block: Finished!

Post Import Followup

After the Import is complete, there are a few followup options for working with the import job or imported blocks. We recommend:

- Reviewing the imported blocks in the IPAM Tab, adding additional IPAM data, custom metadata, rules, or subassignments. See [Working with IP Blocks](#) and [Working with IP Rules](#).
- If the IP Import was only partially successful or requires additional review, you may keep the import job in the "Existing Jobs" list and revise the failed / invalid blocks at a later time. Re-running the import from the same job will allow you to re-attempt import on only the previously unsuccessful / ignored / edited blocks - successfully imported and unchanged blocks will not be affected.

If the IP Import was fully successful, and you do not wish to retain the job data, the Import Job may be deleted from the "Existing Jobs" list by clicking the delete button next to the job name.

Job List	
Existing Jobs	
Test, description: qa test, initial upload: 12-08-2021 3:53 PM, last modified: 12-08-2021 3:53 PM	Delete
Tester, description: test, initial upload: 16-08-2021 2:15 PM, last modified: 16-08-2021 2:15 PM	Delete
Sample IP Import, description: Sample, initial upload: 05-01-2022 2:13 PM, last modified: 05-01-2022 2:14 PM	Delete

Deleting an import job is permanent and non-recoverable!

When working with large or sensitive import jobs, consider performing a backup of your instance before and after the import job as a safeguard.

Additional Information

See the following areas for information on working with IPAM / IP Blocks post-import:

- [IPAM Tab](#)
- [Working with IP Blocks](#)
- [Working with IP Rules](#)
- [IPAM Administration](#)