Skytap Cloud CI Plugin

Plugin Information
View Skytap Cloud CI on the plugin site for more information.

Older versions of this plugin may not be safe to use. Please review the following warnings before using an older version:

- Credentials stored in plain text

This plugin allows you to use Jenkins to run continuous integration and automated testing workflows using dynamically-created development and testing environments in Skytap

Sections in this document:

Introduction

The **Skytap Cloud CI Plugin for Jenkins** allows you to create and configure Skytap Cloud environments as part of your Jenkins-based continuous integration workflow.

In a matter of minutes, you can create a Skytap virtual environment from a golden template and then use that environment to develop your application or run test passes for unit testing, functional testing, integration testing, stress/performance testing or user acceptance testing. All of the VM and network settings are saved with the template, so once you've created an environment, the network is already set up and you're ready to go.

With **Skytap Cloud CI Plugin for Jenkins**, you can add the following actions to your Jenkins build steps:

- Add Environment to Project
- Add Template to Project
- Change Environment State
- Connect to Network in another Environment (ICNR)
- Connect to VPN Tunnel
- Create Environment from Template
- Create Sharing Portal
- Create Published Service
- Create Template from Environment
- Delete Environment
- List Sharing Portal for Environment
- List VM Published Service
- Merge Template into Environment

Before You Begin

To use the **Skytap Cloud CI Plugin for Jenkins**, you must have a Skytap account.

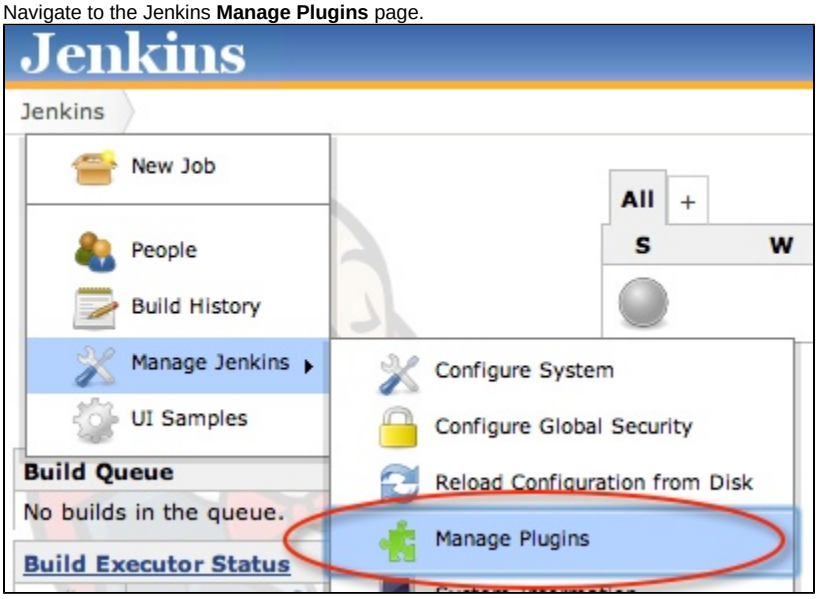
If you do not have a Skytap account, you can sign up for a demo account at http://www.skytap.com/

Step 1: Installing the Skytap Cloud CI Plugin for Jenkins

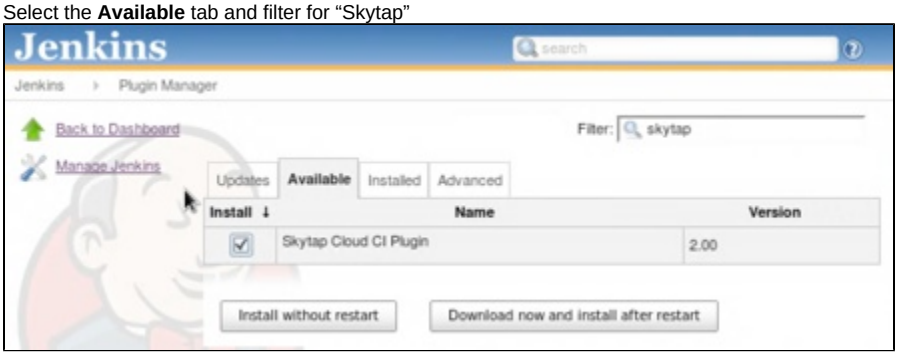
You can install the plugin from the Jenkins web UI, or you can download the plugin from the plugin repository.

Option 1:
To install the plugin from the Jenkins Web UI:

1. Navigate to the Jenkins **Manage Plugins** page.



2. Select the **Available** tab and filter for “Skytap”

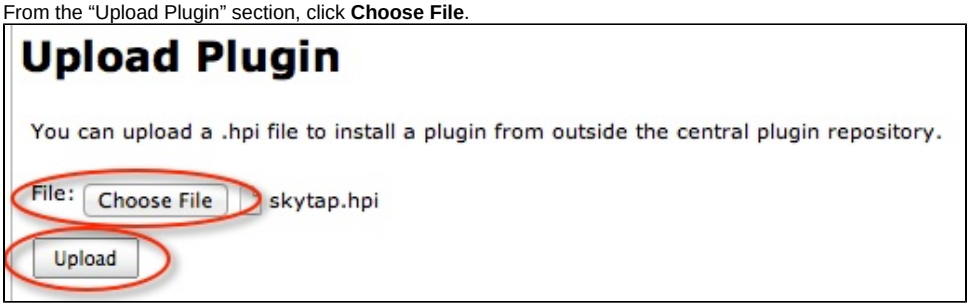


3. Select the “Install” checkbox next to “Skytap Cloud CI Plugin for Jenkins.”
4. Click **Download now and install after restart**.

Option 2:
To install the plugin from the Jenkins plugin repository:

1. Download the "skytap.hpi" plugin file from the Jenkins plugin repository.
2. Navigate to the Jenkins **Manage Plugins** page.
3. Select the **Advanced** tab.

4. From the “Upload Plugin” section, click **Choose File**.

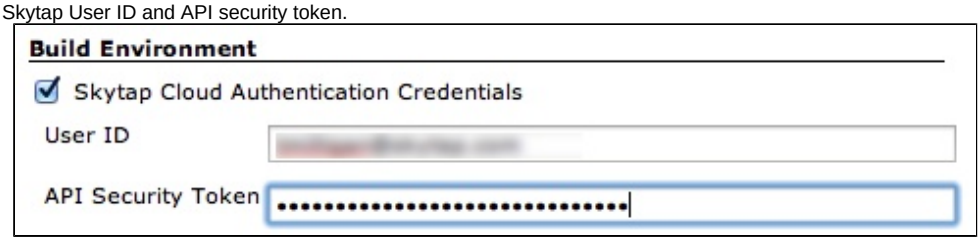


5. Navigate to the downloaded plugin file (skytap.hpi) and select it.
6. Click **Upload**.
7. After the plugin is uploaded, restart Jenkins by navigating to http://_your-jenkins-server_/jenkins/restart
8. Click **Yes** to confirm.

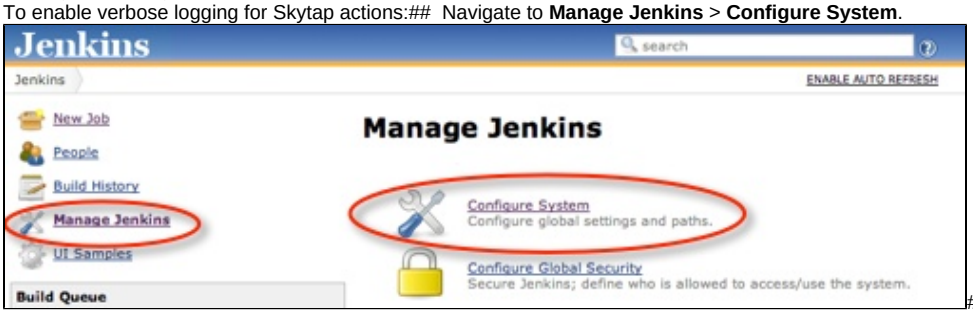
Step 2: Configuring the Plugin

To configure the plugin, you will need to enter to your Skytap credentials. Optionally, you can also enable verbose logging.

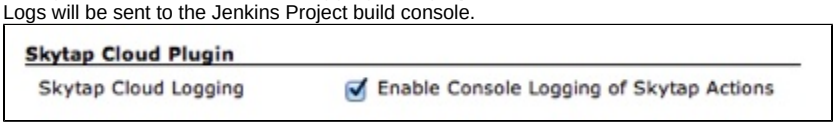
1. To enter your Skytap credentials:## Navigate to the configuration page for your Jenkins build project.## Under **Build Environment**, enter your Skytap User ID and API security token.



   NOTE: You can retrieve your user ID (user name) and API security token from your Skytap account settings page (https://cloud.skytap.com/account). If you do not have an API security token listed, use the instructions at http://help.skytap.com/#Access_Policy.html to enable API security tokens in your account.
2. To enable verbose logging for Skytap actions:## Navigate to **Manage Jenkins** > **Configure System**.



   ## In the Skytap Cloud Plugin settings, select **Enable Console Logging of Skytap Actions**.
   Logs will be sent to the Jenkins Project build console.

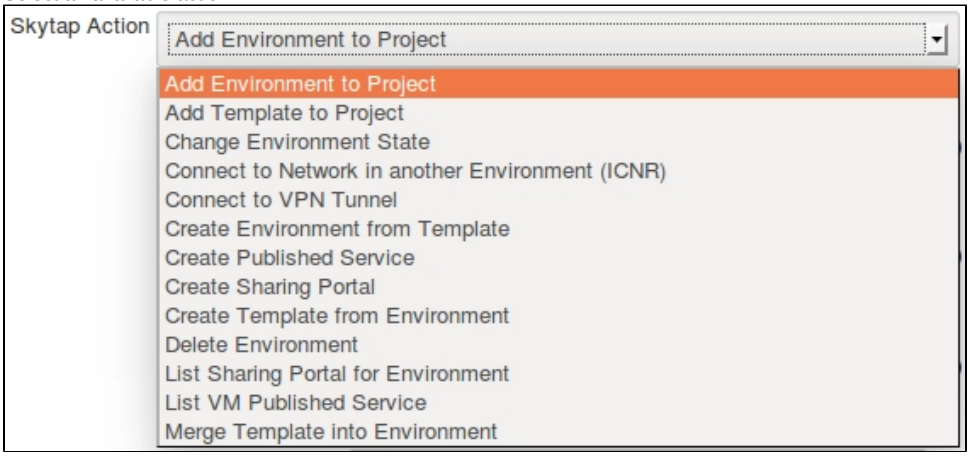


Step 3: Adding Skytap Actions to Your Build Steps

Once the plugin is installed and configured, you can add Skytap actions to your Jenkins build steps:

1. Navigate to the Jenkins Project Configuration screen.
2. From the **Add build step** dropdown menu, select **Execute Skytap Action**.

3. Select an available action:



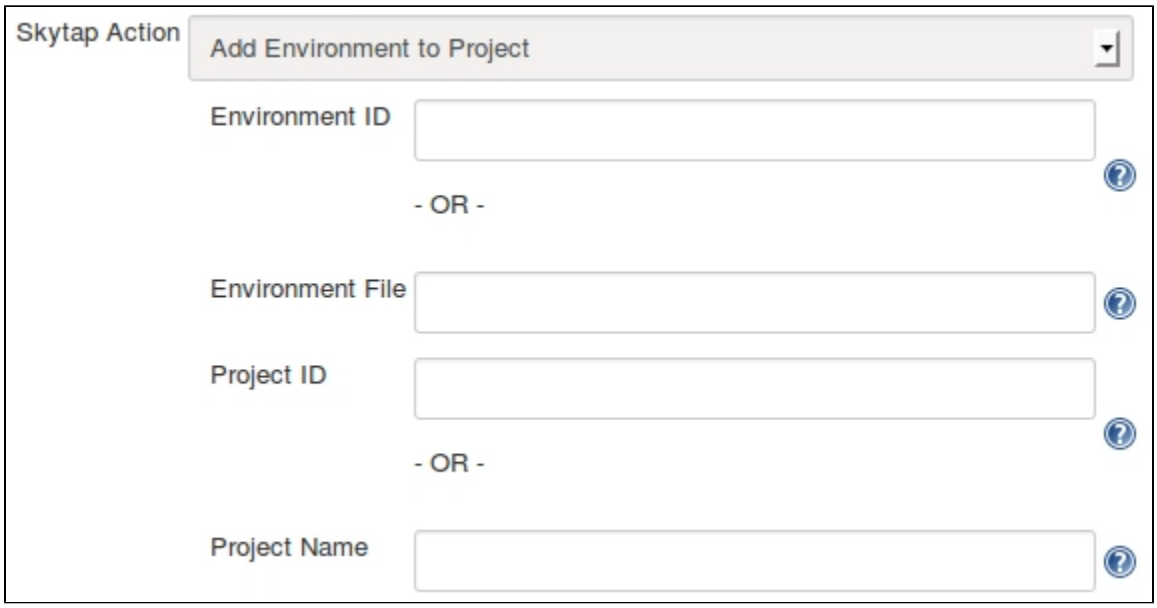
4. Enter any required parameters. For a description of each action and the required parameters, see the sections below.

Reference: Skytap Actions and Required Parameters

NOTE: If you see different action names, please update the Skytap Cloud CI Plugin to the latest version.

Add Environment to Project

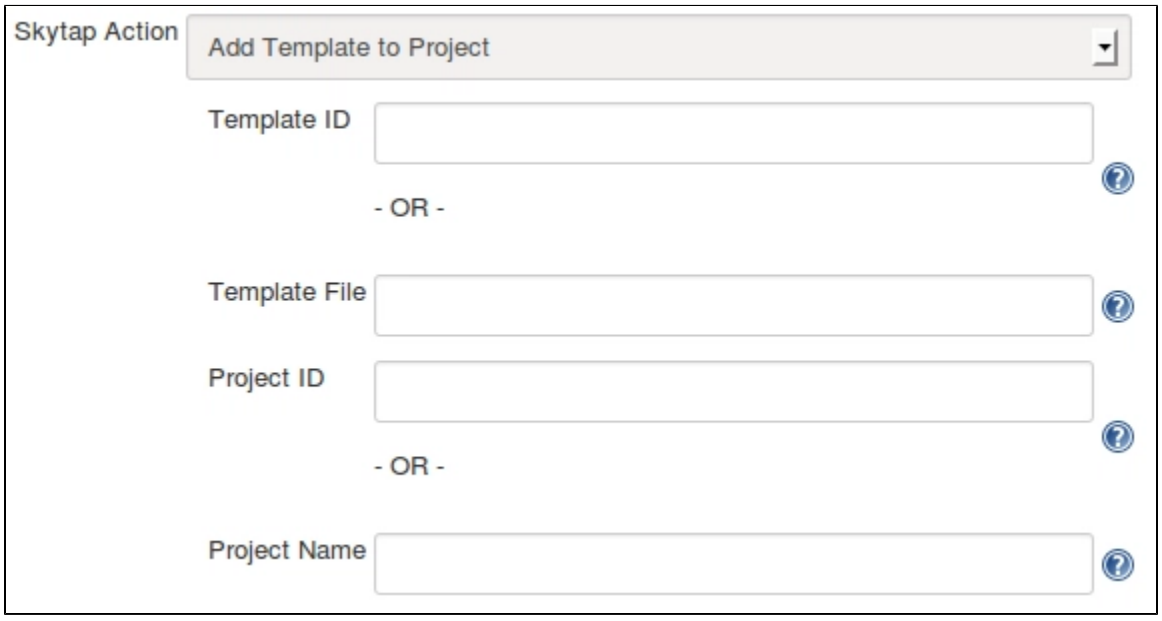
This action adds a Skytap environment to a Skytap project.



Required Parameters	Description
Environment ID or Environment File	Enter a Skytap Environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
Project ID or Project Name	Enter a Skytap project ID (an integer) or a Skytap project name. The project must already exist and be accessible from your Skytap account.

Add Template to Project

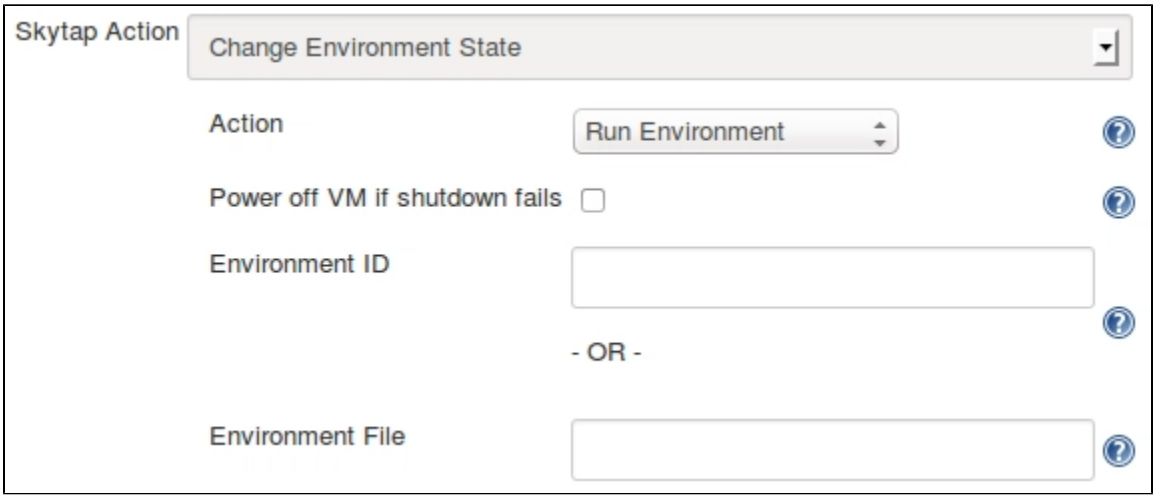
This action adds a Skytap template to a Skytap project.



Required Parameters	Description
Template ID or Template File	Enter a Skytap template ID (an integer), if one is known. If the template was created in an earlier step (using the "Create Template from Environment" Skytap action), enter the Template Data Save File created from that step.
Project ID or Project Name	Enter a Skytap project ID (an integer) or a Skytap project name. The project must already exist and be accessible from your Skytap account.

Change Environment State

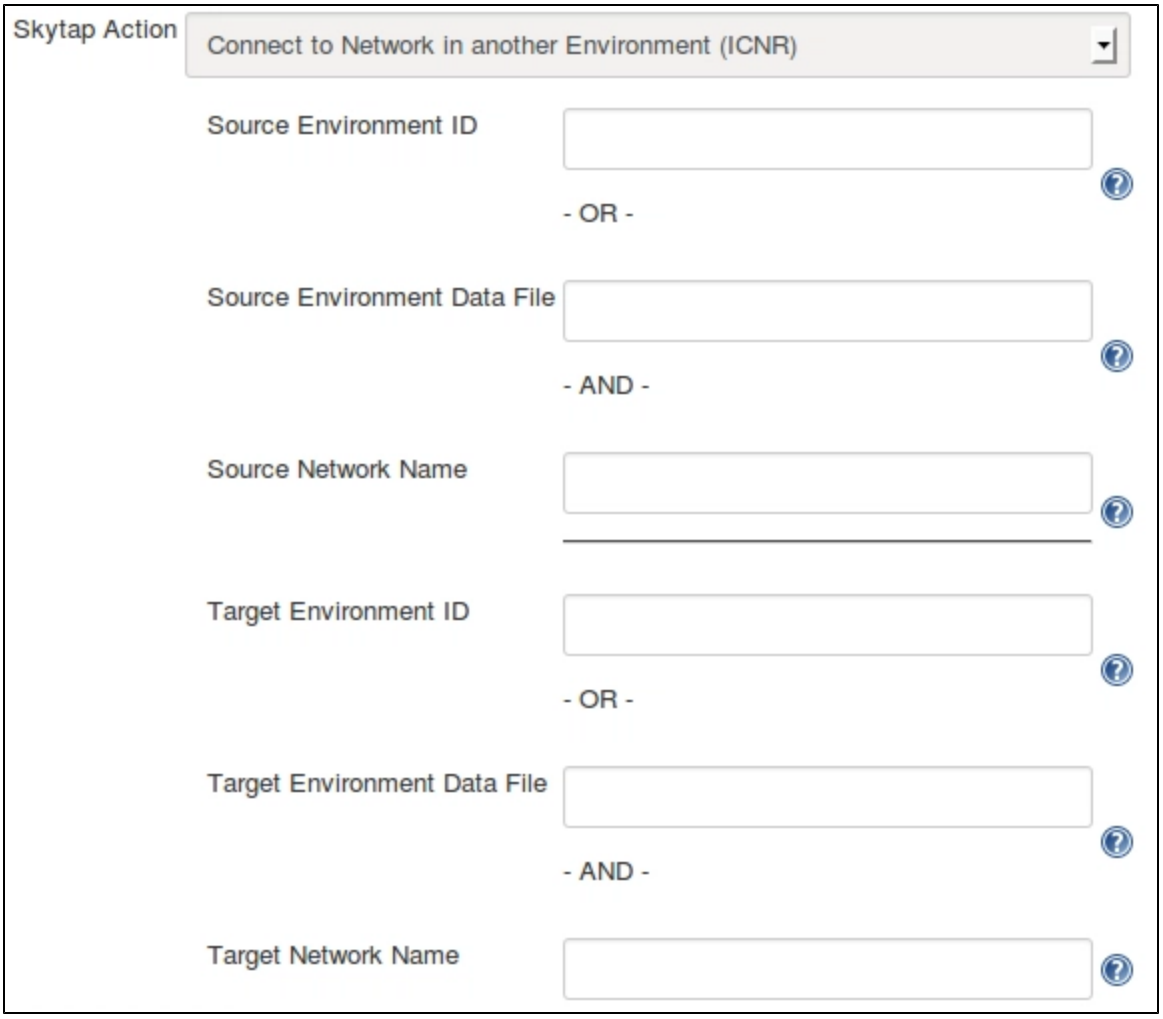
This action will run, suspend, or shut down a Skytap environment.



Parameters	Description
Action (Required)	Select "Run Environment", "Suspend Environment", or "Shutdown Environment"
Power off VM if shutdown fails (Optional)	If this option is checked, Skytap will forcibly power off any VMs that do not shut down within 5 minutes.
Environment ID or Environment File (Required)	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.

Connect to Network in another Environment (ICNR)

This action connects two networks in different Skytap environments. The networks must already be configured to allow an Inter-Configuration Network Routing (ICNR) connection to occur.

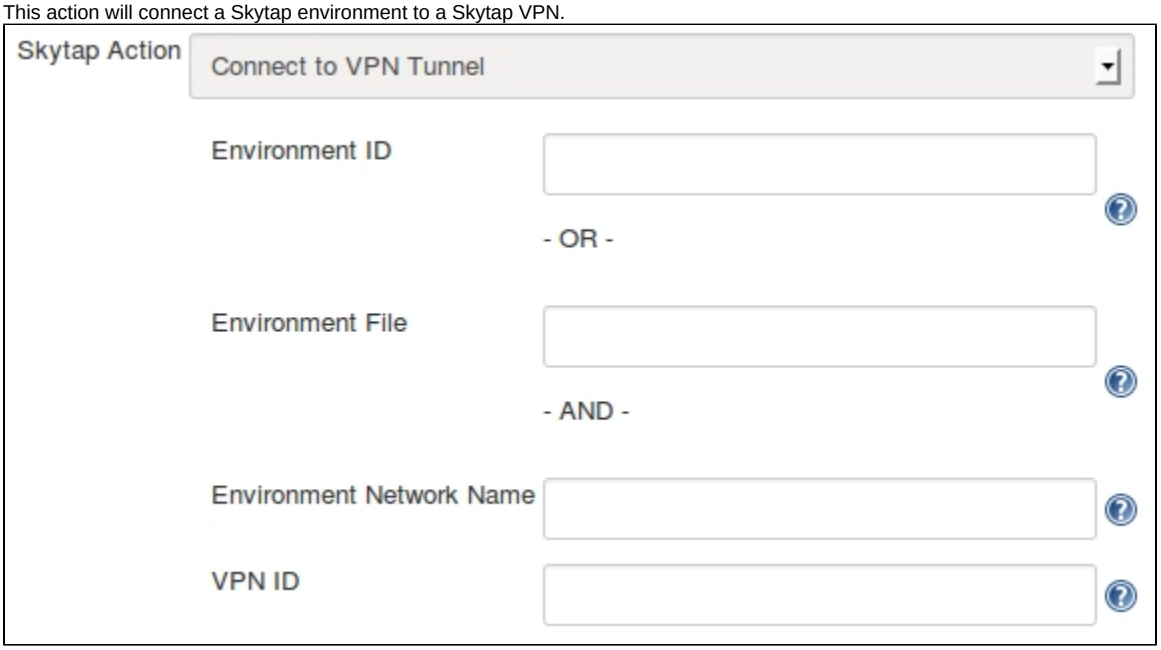


Required Parameters	Description
Source Environment ID or Source Environment Data File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
Source Network Name	Enter the name of the network in the source environment.
Target Environment ID or Target EnvironmentData File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
Target Network Name	Enter the name of the network in the target environment. This network must be visible to other networks.

NOTE: If there is more than one network in the environment with the specified name (not recommended), the plugin will use the first network encountered in the metadata associated with the environment.

Connect to VPN Tunnel

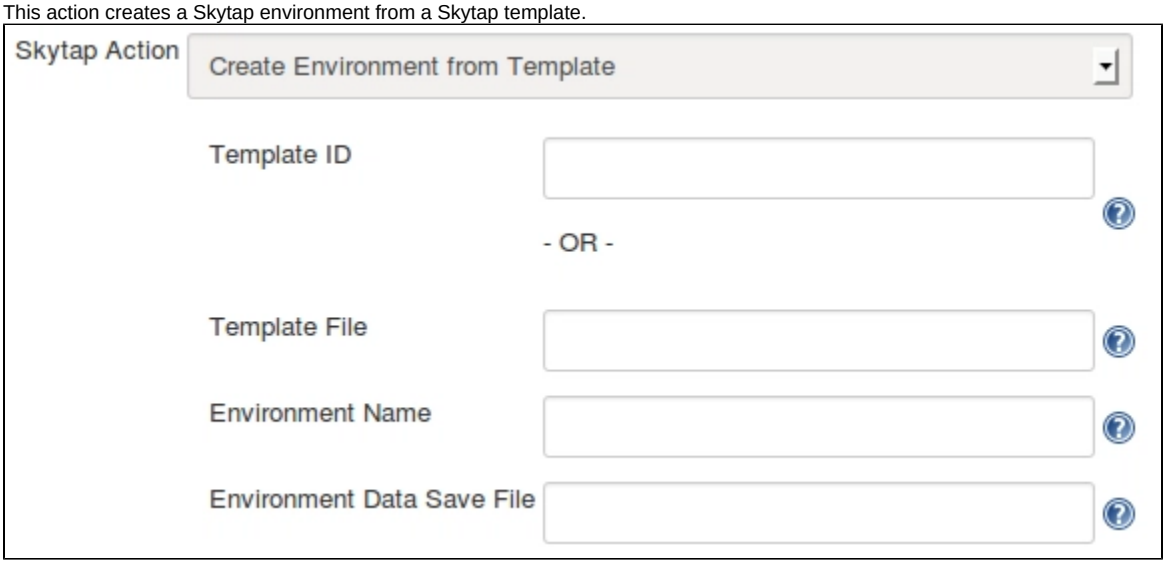
This action will connect a Skytap environment to a Skytap VPN.



Required Parameters	Description
Environment ID or EnvironmentFile)	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
Environment Network Name	Enter the name of the network in the Skytap environment. NOTE: If the environment contains multiple networks with the same name (not recommended), the first network encountered in the metadata associated with the environment will be used.
VPN ID	Enter the Skytap VPN ID (an integer).

Create Environment from Template

This action creates a Skytap environment from a Skytap template.

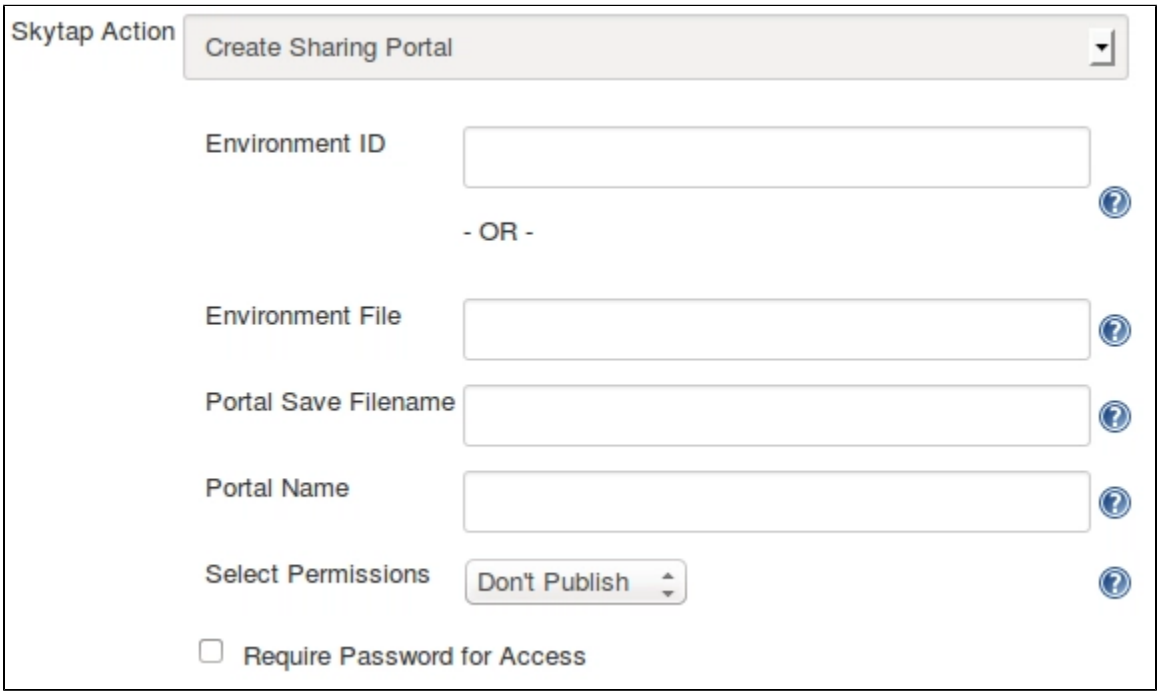


Required Parameters	Description
Template ID or Template File	Enter a Skytap template ID (an integer), if one is known. If the template was created in an earlier step (using the "Create Template from Environment" Skytap action), enter the Template Data Save File created from that step.
Environment N ame	Enter a name for the new environment.

Environment Data Save File	Enter a name for the output file (for example, **env.json**). The plugin will create the output file and populate it with Skytap environment metadata in JSON format. The metadata includes the Skytap environment ID and other information about the environment. This file can be used in Skytap actions that require a Skytap environment ID or other environment metadata.

Create Sharing Portal

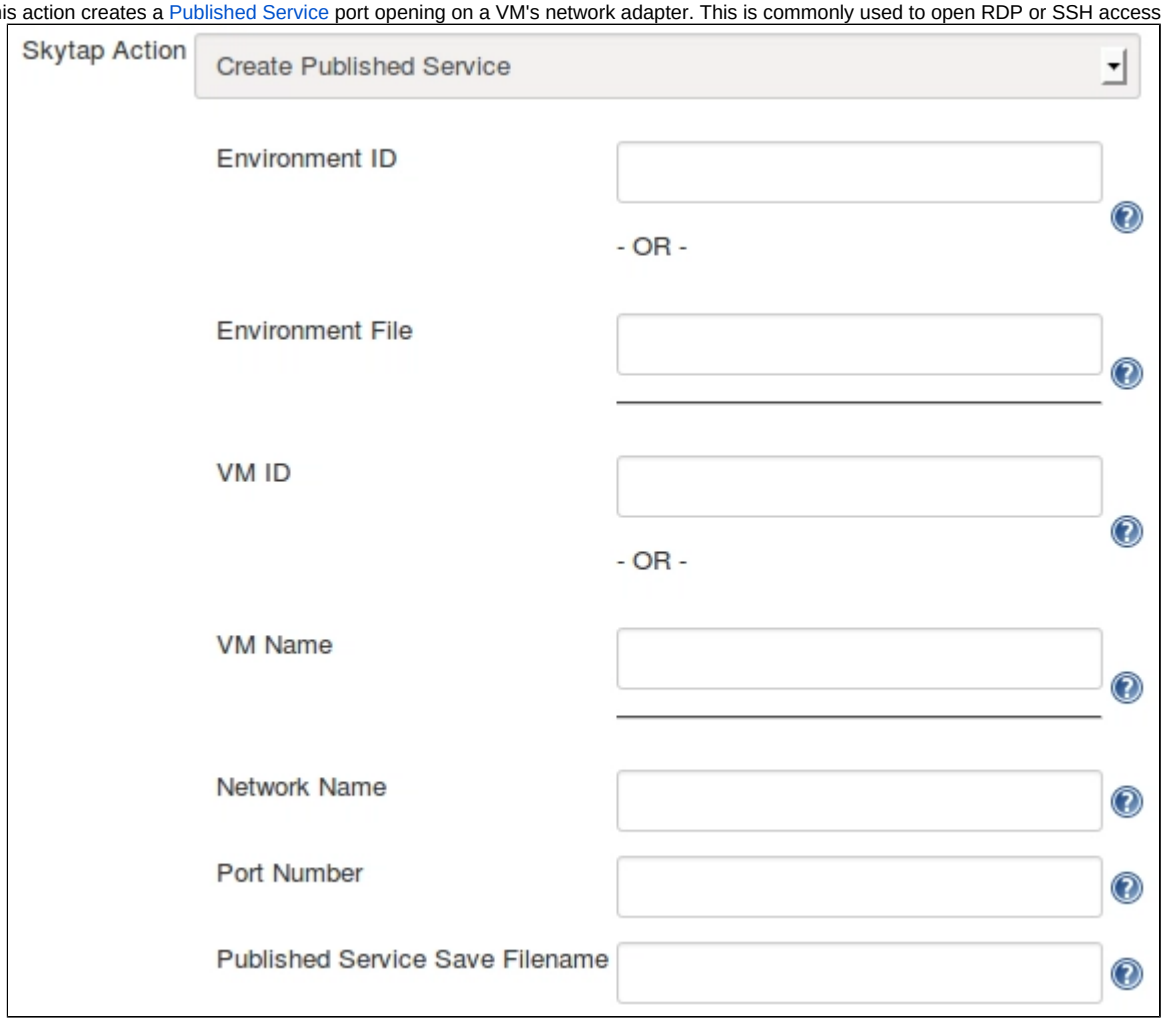
This action creates a Sharing Portal for a Skytap environment.



Required Parameters	Description
Environment ID or Environment File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
URL Save Filename	Enter a name for the output file (for example, **puburl.txt**). The plugin will create the output file and populate it with the sharing portal's address.
Select Permissions	Select a permission level for VMs in the sharing portal. For more information about permissions, see the Skytap Help Documentation.
Require Password for Access	If checked, enter a password to restrict access to the sharing portal.

Create Published Service

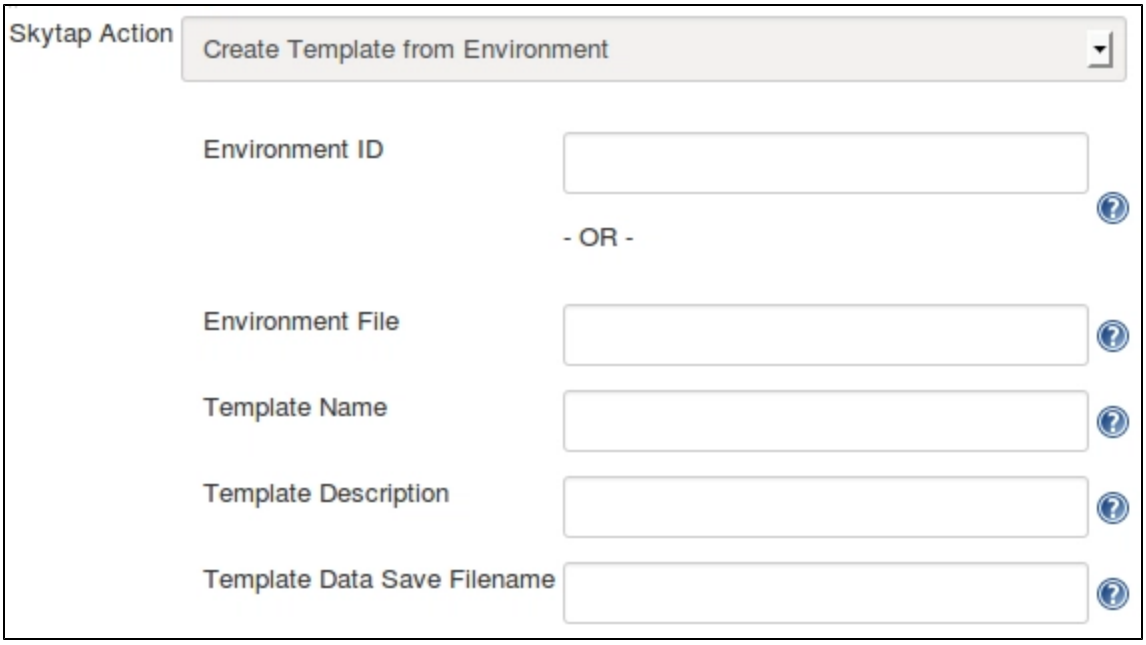
This action creates a Published Service port opening on a VM's network adapter. This is commonly used to open RDP or SSH access to a VM.



Required Parameters	Description
Environment ID or Environment File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
VM ID or VM Name	Enter the ID or name of the virtual machine you want to attach the published service to. Note: If the environment has more than one VM with the same name, the first VM in the Skytap environment metadata definition will be selected.
Network Name	Enter the name of the network you want to attach the published service to. NOTE: If the VM contains multiple networks with the same name, the first network in the Skytap environment metadata definition will be selected.
Port Number	Enter the port number you want to connect the published service to (for example, 3389 for RDP access).
Published Service Save Filename	Enter a name for the output file (for example, **pubservice.txt**). The plugin will create the output file and populate it with the "public-URL:port-number". NOTE: The port number in this text will be different than the port number specified above. Skytap uses port mappings to obscure the port openings on the public Internet.

Create Template from Environment

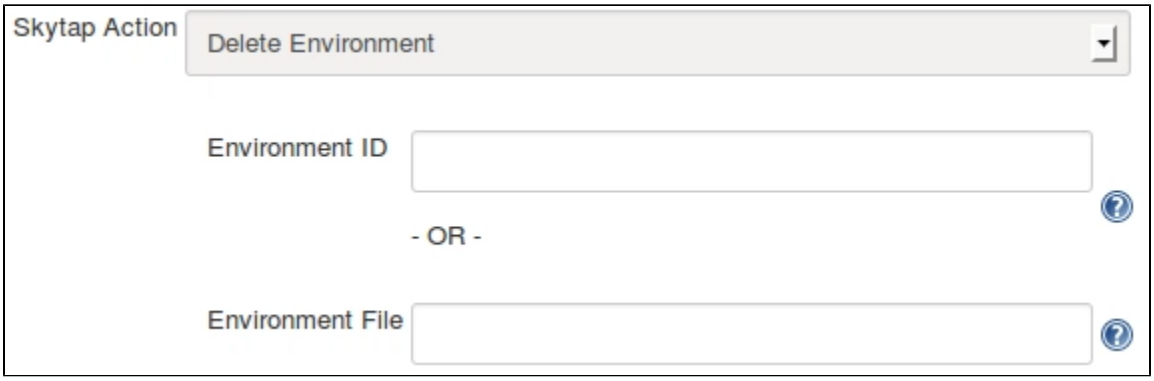
This action creates a Skytap template from a Skytap environment.



Required Parameters	Description
Environment ID or Environment File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
Template Name	Enter a name for the new template.
Template Data Save File	Enter a name for the output file (for example, **template.json**). The plugin will create the output file and populate it with Skytap template metadata in JSON format. The metadata includes the Skytap template ID and other information about the template. This file can be used in Skytap actions that require a Skytap template ID or other template metadata.

Delete Environment

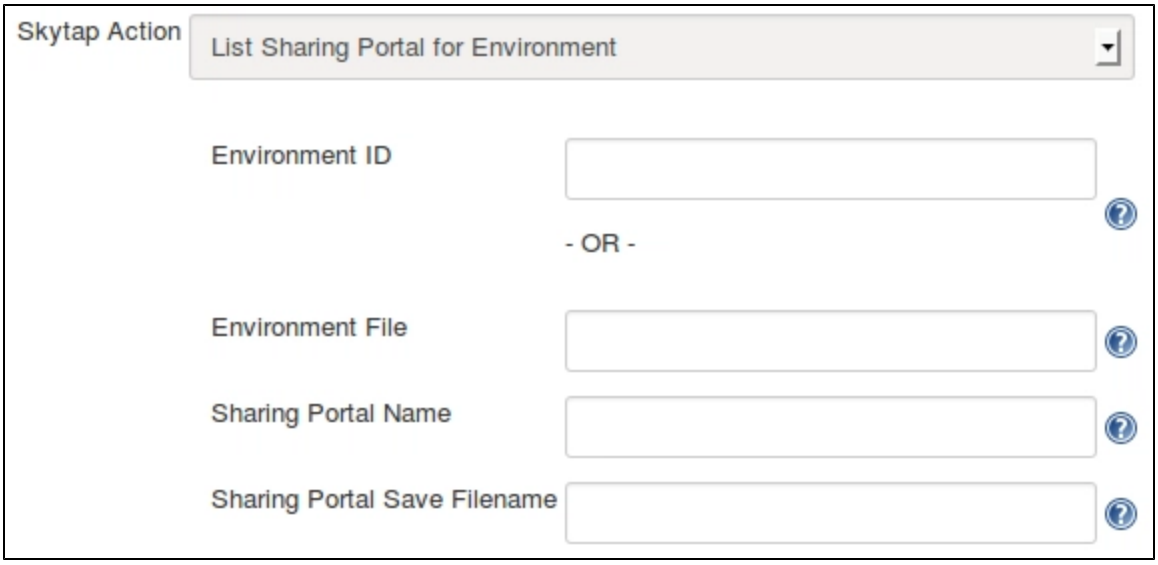
This action deletes a Skytap environment.



Required Parameter	Description
Environment ID or Environment File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.

List Sharing Portal for Environment

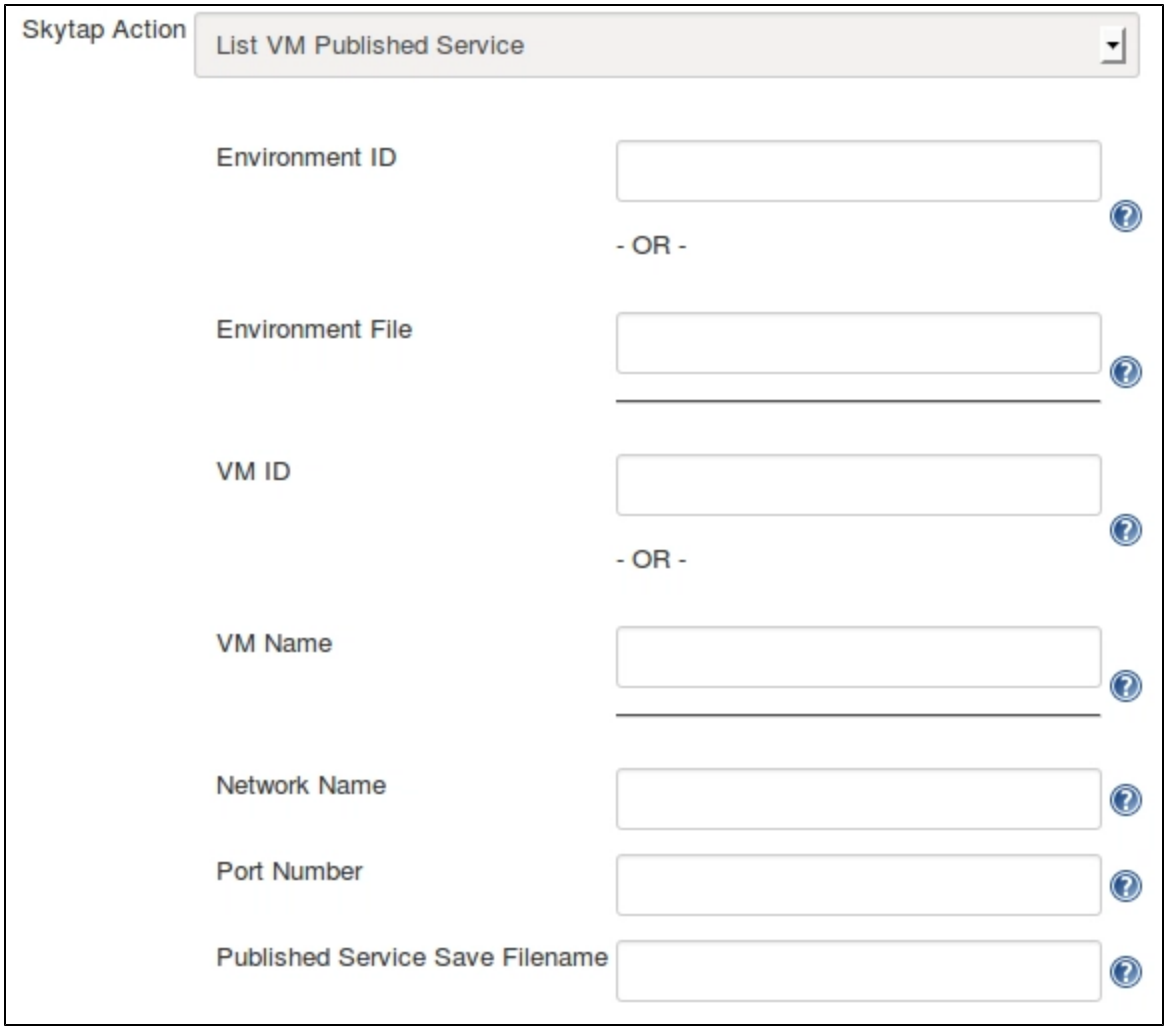
This action returns the address for an existing sharing portal in a Skytap environment.



Required Parameters	Description
Environment ID or Environment File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
Sharing Portal Name	Enter the name of the desired sharing portal. NOTE: If the environment has multiple sharing portals with the same name, the first URL encountered in the environment metadata will be selected.
Sharing Portal Save Filename	Enter a name for the output file (for example, **puburl.txt**). The plugin will populate this file with the sharing portal's address.

List VM Published Service

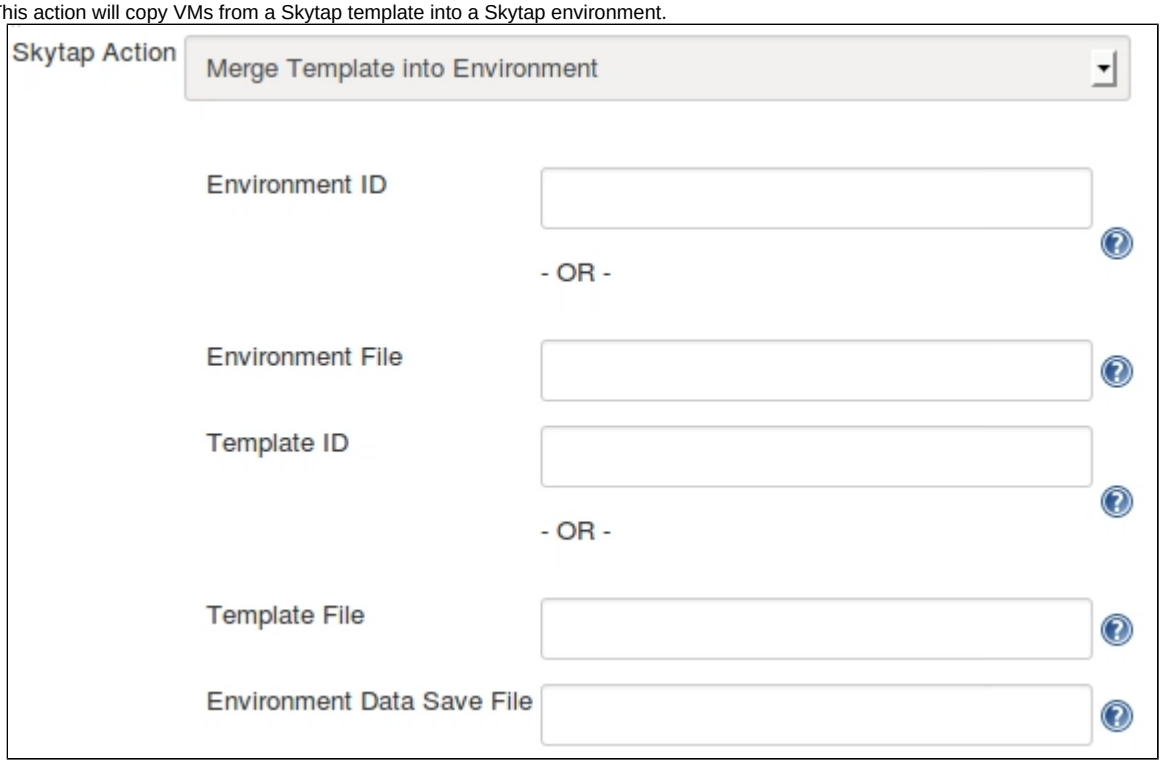
This action returns the "public-URL:port-number" for an existing published service in a Skytap environment.



Required Parameters	Description
Environment ID or Environment File	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
VM ID or VM Name	Enter the ID or name of the virtual machine the published service is attached to. NOTE: If the environment has multiple VMs with the same name, the first VM in the Skytap environment metadata definition will be selected.
Network Name	Enter the name of the network the published service is attached to. NOTE: If the VM has multiple networks with the same name, the first network in the Skytap environment metadata definition will be selected.
Port Number	Enter the port number the published service is attached to (for example, 3389 for RDP access).
Published Service Save Filename	Enter a name for the output file (for example, **pubservice.txt**). The plugin will create and populate this file with the "public-URL:port-number." NOTE: The port number in this text will be different than the port number specified above. Skytap uses port mappings to obscure the port openings on the public Internet.

Merge Template into Environment

This action will copy VMs from a Skytap template into a Skytap environment.



Parameters	Description
Environment ID or Environment File (Required)	Enter a Skytap environment ID (an integer), if one is known. If the environment was created in an earlier step (using the "Create Environment from Template" Skytap action), enter the Environment Data Save File created from that step.
Template ID or Template File (Required)	Enter a Skytap template ID (an integer), if one is known. If the template was created in an earlier step (using the "Create Template from Environment" Skytap action), enter the Template Data Save File created from that step.
Environment Data Save File (Optional)	To create a new Environment Data Save File with updated environment metadata, enter a new file name (**updatedenv.json**). This file can be used in actions that require a Skytap environment ID or other environment metadata.