AppViewX

# Delete a Virtual Server Workflow Guide

## Trademarks



## Contact Information

AppViewX, Inc.

500 Yale Avenue North, Suite 100

Seattle, WA 98109

Tel: +1 (206) 207 7541

Email: info@appviewx.com

Web: www.appviewx.com

## Document Information

Software Version: 12.3.0

Document Version: 1.0

Last updated on: April 06, 2017

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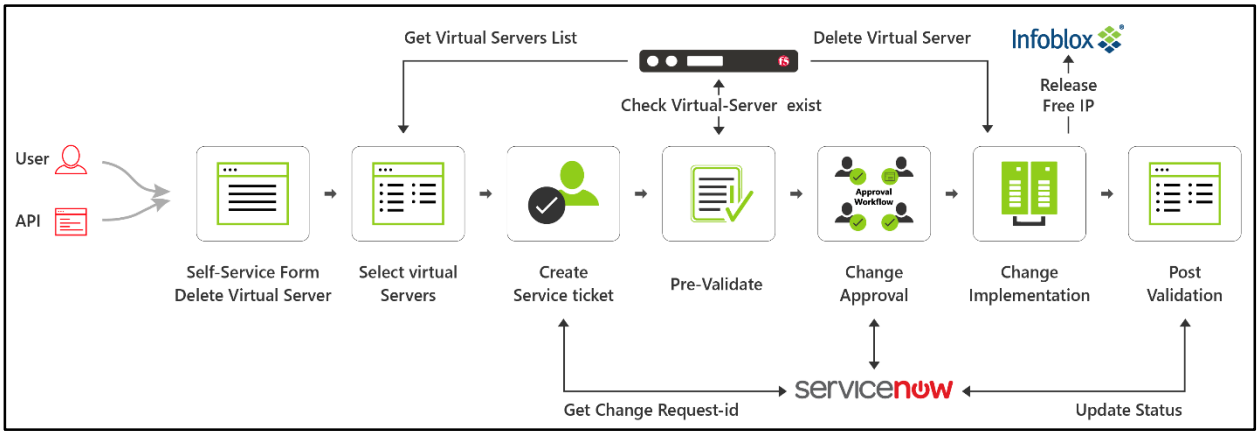
# AppViewX Overview

Application-oriented companies can only accomplish true business agility through the automation of delivery infrastructure. At AppViewX, we believe that in order to power faster and more compliant application provisioning, Network Operations groups need to work smarter, not harder. Our platform offers a solid foundation to start your automation journey. It enables complete change management automation by integrating with leading technology providers and defining workflows for all stages of application provisioning on ADC: validation, approval, implementation, and rollback. To get started, you can download Free AppViewX, which comes with a series of preloaded application automation provisioning workflows.

# Delete Virtual Server Workflow

Multiple virtual servers and the associated objects like profiles and monitors can be deleted using the *Delete Virtual Server* automation workflow. This workflow filters available F5 ADC devices based on a user's access permissions, defined by Role Based Access Control (RBAC), and displays the list of virtual servers available on the selected ADC device. It provides an option to release the virtual server IP address and delete the DNS records in an IP address management (IPAM) system, such as Infoblox. The workflow can also integrate with ITSM systems such as ServiceNow for approvals and governance. When the form is submitted, a change request is created and the service request change ID is associated with the work order. This is updated based on the implementation status.




The first step in the work order is a pre-validation check to see if the virtual server exists. If the server does exist, the configurations needed to delete the virtual server and its associated profiles and monitors are reviewed through a two-level approval process: first by ServiceNow and then by AppViewX. After approval is granted, the virtual server and its unused dependent objects, like profiles and monitors, are deleted. A series of post-validation scripts ensure that the virtual server is deleted and any orphan objects are removed.

# Prerequisites

To run this workflow in your environment, the following prerequisites must be met:

- Free AppViewX or AVX 12.2.0 has been downloaded and installed.
- An F5 LTM device has been added to AppViewX as a managed device.
- (Optional) An Infoblox device has been added to AppViewX.
- (Optional) ServiceNow is registered to AppViewX.
- Multiple server nodes are running the application.

# Compatible Software Versions

The application provisioning automation temples have been validated for the following software versions:

- AppViewX – Free AppViewX, and AVX 12.3.0
- ServiceNow – Geneva, Eureka, and Jakarta

- Infoblox – version 7.2.X
- F5 LTM – version 10.X, 11.X, or 12.X

# Log In to AppViewX

Log in to the AppViewX web interface. The standard format for a login URL is: `http://hostname:portnumber`.

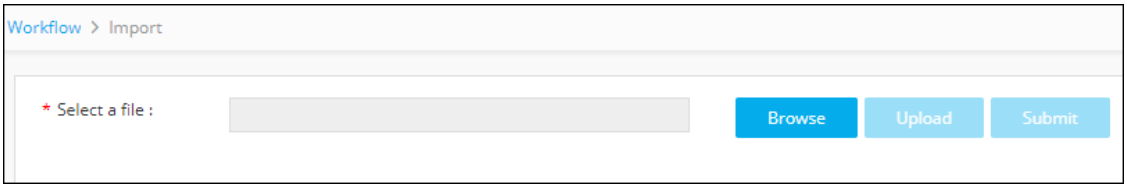
The hostname and port number are configured during deployment, with the default port number set to 5004 and the default web credentials set to `admin/AppViewX@123`.

**Note:** It is recommended that you access AppViewX using Internet Explorer, Firefox, or Google Chrome.

# Import Visual Workflows

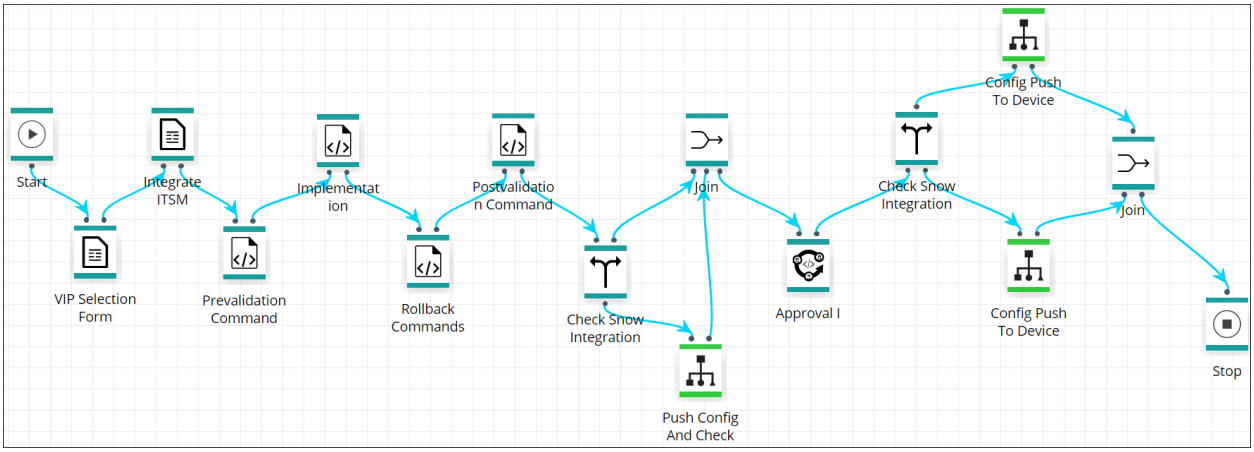
**Note:** Free AppViewX comes preloaded with visual workflows. You will only need to use the following import instructions when newer versions of the workflows become available.

1. Click the (Menu) button.
2. Navigate to **Workflow > Studio**.
3. Click the (**Import**) button in the Command bar.




4. To import a workflow, complete the following sub-steps:
    a. Click the **Browse** button.
    b. Select the zip file containing one or more workflows, then click **Upload**.
    c. In the table at the bottom of the *Import* page, select the check box beside the unzipped workflow file.
    d. Click **Submit** to deploy the workflow into your AppViewX environment.

The Delete Virtual Server workflow is shown in the image below:

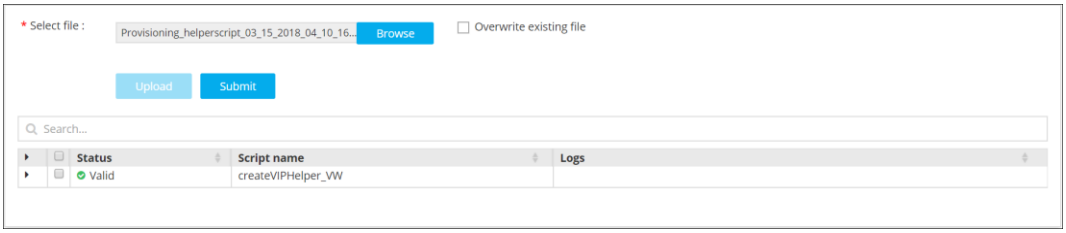



# Import Helper Scripts

**Note:** Free AppViewX comes preloaded with helper scripts. You will only need to use the following import instructions when newer versions of the helper scripts become available.

To import a helper script, complete the following steps:

1. In the navigation menu on the left-hand side of the AppViewX screen, navigate to **Workflow > Studio**.
2. Click on the (**Helper script**) button. The *Helper script library* screen appears.
3. Click the (**Import**) button.
4. Click **Browse** and select the helper script zip file you want to import.
5. Click **Upload** to import the file and view its contents.

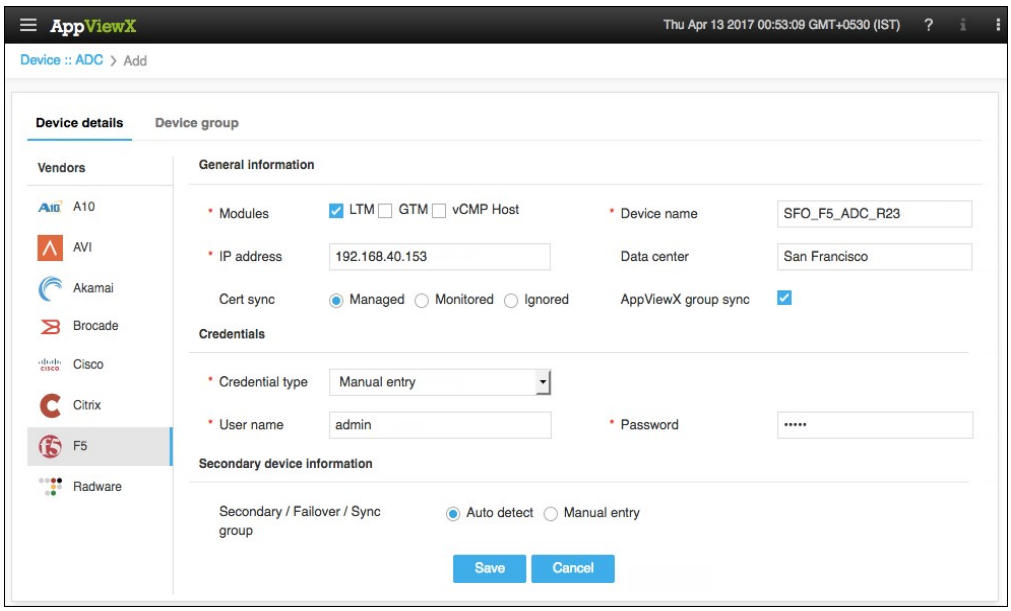



**Note:** Select the checkbox **Overwrite existing file**, only if the names of the new script file that you are trying to upload and the existing script file are the same.

6. In the table at the bottom of the Import page, select the check boxes beside each of the helper scripts.
7. Click **Submit** to deploy them into your AppViewX environment.

# Add an ADC Device: F5 LTM

1. In the navigation menu on the left-hand side of the AppViewX screen, navigate to **Inventory > Device**.
2. On the *Device* screen, click the **ADC** tab if it is not already visible.
3. Click the (**Add**) button in the Command bar.
4. On the *Add* screen that opens, click to select **F5** as the ADC vendor.




5. Select the module to be managed on the ADC device.
6. Create a **Device name** that is specific to AppViewX and that will identify the device in the AppViewX inventory.
7. Enter the **management IP address** of the device.
8. (Optional) Specify a **Data center location** if you want to have the option later to filter devices based on their location.
9. In the **Cert sync** field, select the radio button for the kind of synchronization relationship you want to establish between SSL certificates on the ADC device and AppViewX: **Managed**, **Monitored**, or **Ignored**.
10. (Optional) Select the **AppViewX group sync** check box if you need AppViewX to sync the configuration changes from an active to standby F5 ADC device. This is required in older F5 versions like v10. The latest versions of F5 sync automatically.
11. Select a **Credential type** from the dropdown menu.
12. Enter the **User name** and **Password** that are associated with the credentials.
13. **Note:** The user you enter in the **User name** field must have advanced shell access.
14. Select **Auto detect** to automatically detect and add secondary or failover devices or sync groups to the ADC device inventory.
15. Click **Save** to save the new ADC device on the ADC tab.

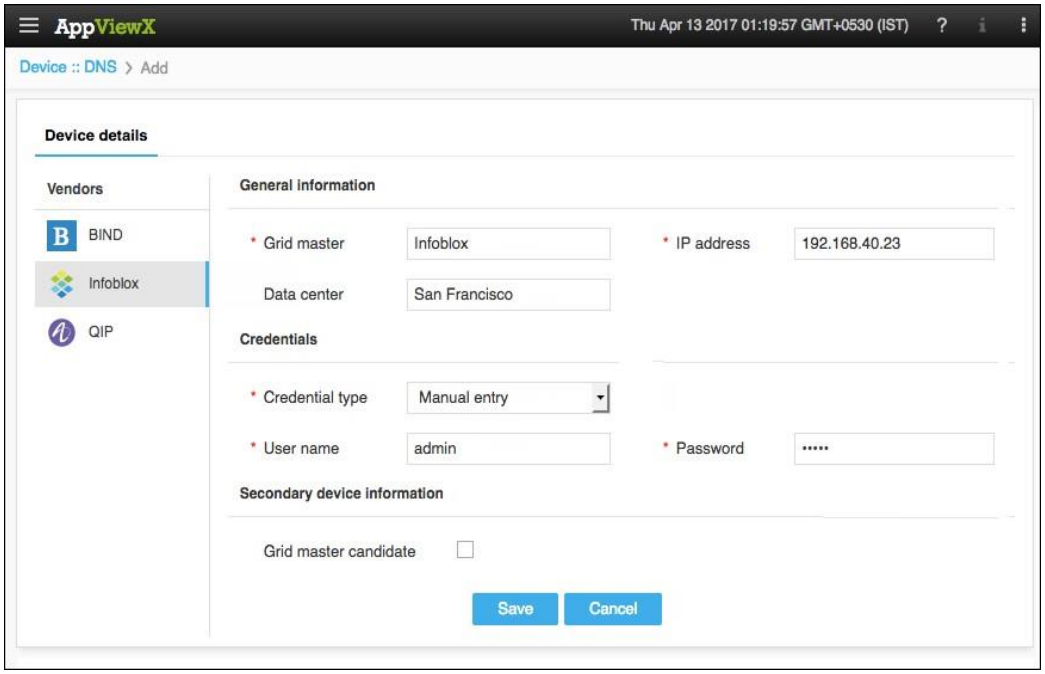

The device will display one of the following statuses:

- **In Progress** – Device configuration fetch is in progress.

- **Managed** - Device configurations are fetched and parsed successfully. This is the status a successfully added ADC device should have.
- **Unresolved** – Unable to communicate with device due to invalid login credentials.
- **Failed** – Device configuration fetch failed due to unsupported version.

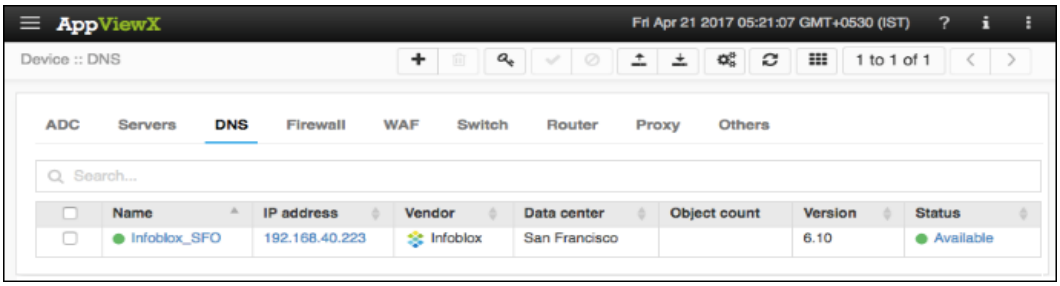
# Add an IPAM Device: Infoblox

1. In the navigation menu on the left-hand side of the AppViewX screen, navigate to **Inventory > Device**.
2. Click the **DNS** tab.
3. Click the + (**Add**) button in the Command bar.
4. On the *Add* page that appears, click to select **Infoblox** and enter the device's IP address and advanced shell access credentials.



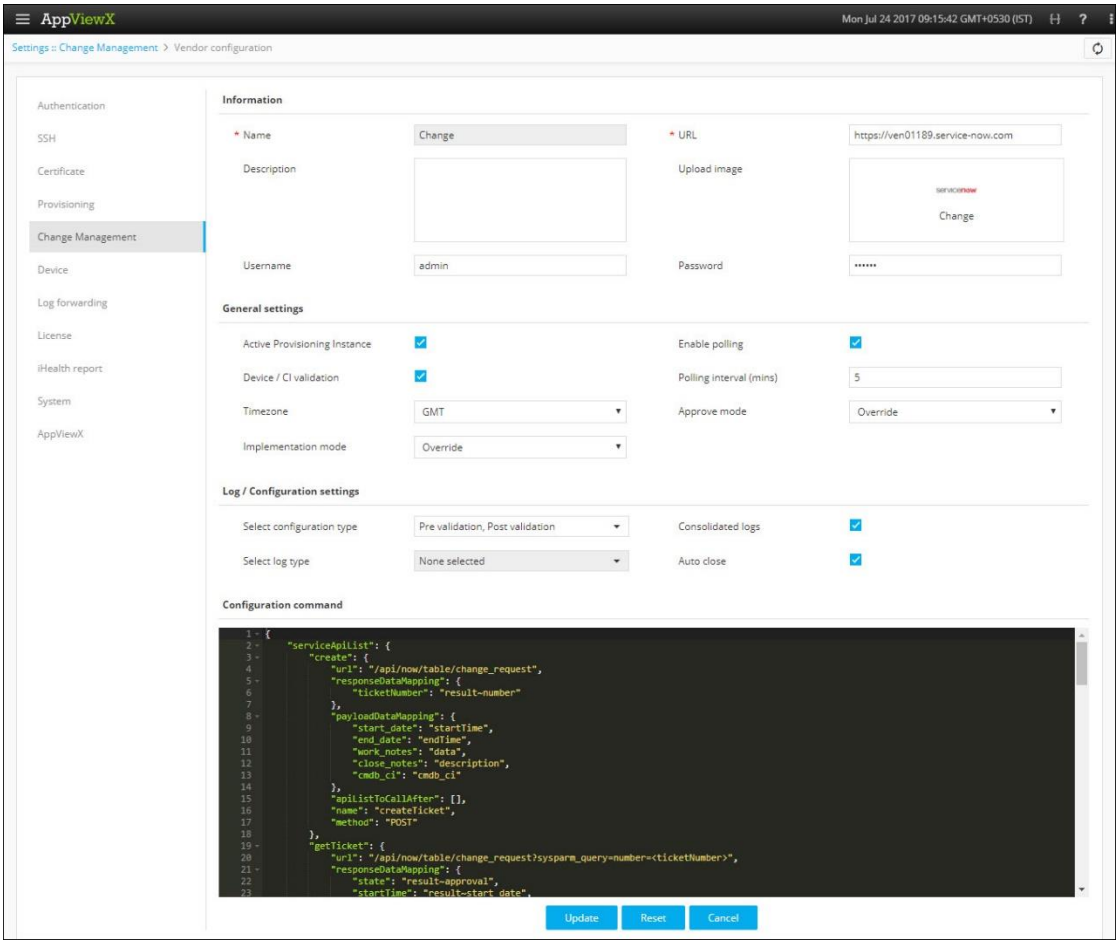

5. Click the **Save** button.

   The device status on the DNS tab changes to **Available** to indicate the successful addition of Infoblox.

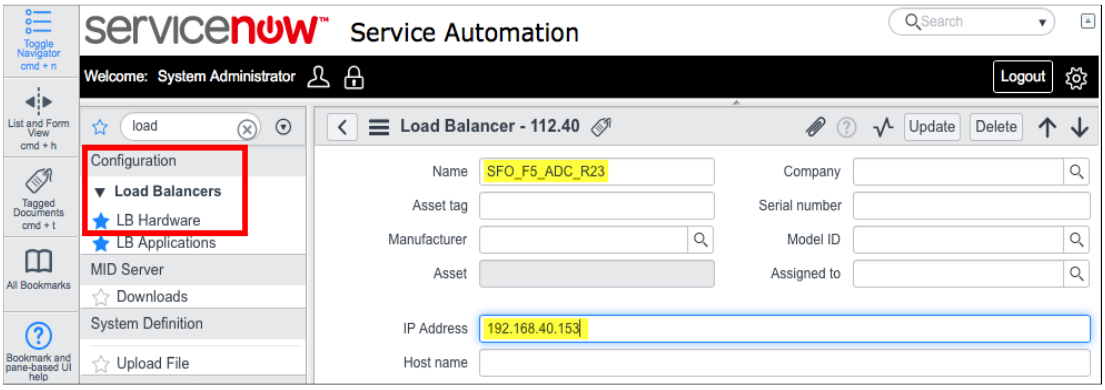


# Register an ITSM Device: ServiceNow

1. In the navigation menu on the left-hand side of the AppViewX screen, navigate to **Settings**.
2. On the *Settings* page that opens, click **Change Management** in the column on the left.
3. Click the **ServiceNow** plug-in.
4. On the *Vendor configuration* screen that opens, enter a valid web URL
5. (Optional) Enter a **Description** of the vendor to help users identify it.
6. Enter the ServiceNow **username** and **password** credentials in the respective fields.
7. Click **Update** to save the changes made in the system.




8. (Optional) The F5 LTM device you are configuring should be present in the ServiceNow LB Hardware inventory. You can check this by opening ServiceNow and clicking to open the **Load Balancers > LB Hardware** section shown below. The device name used in the ServiceNow inventory and AppViewX ADC device inventory should be the same.

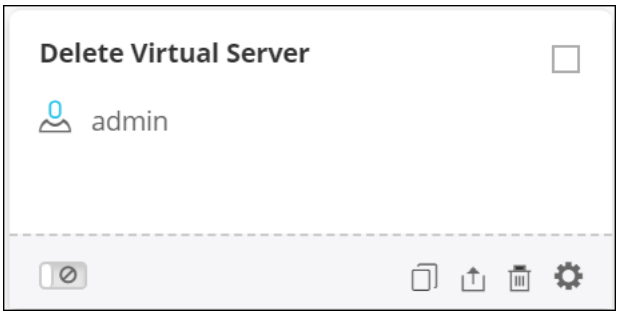



# Enable a Workflow

To enable the **Create Virtual Server** workflow, complete the following steps:

1. Click the (**Menu**) button.
2. Navigate to **Workflow** > **Configurator**.
3. The *Workflow* screen opens.
4. Click the (**Select**) button on the *Create Virtual Server* workflow to enable it. If the workflow is already selected, a (**Deselect**) button appears.
5. Click the (**Enable**) button in the Command bar.

   **Note:** You can also enable the required workflow from the Card view by clicking the (**Disable**) button.




6. On the *Confirmation* screen that appears, click **Yes**.

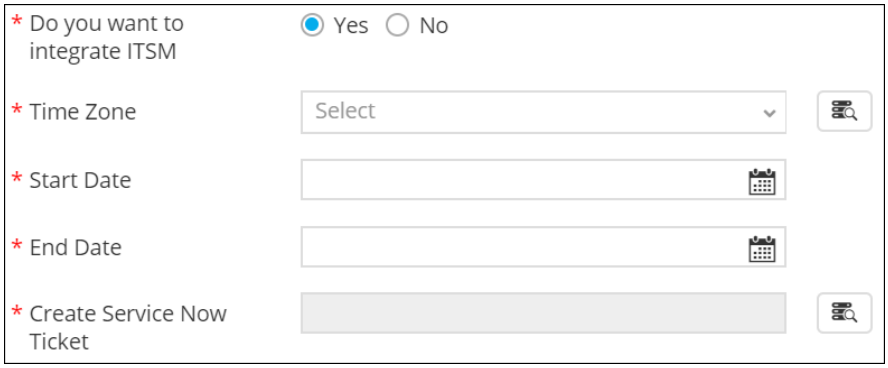
# Delete a Virtual Server

1. Click the (**Menu**) button.
2. Navigate to **Workflow** > **Request**.

   The *Request* screen opens with **My catalog** tab displayed by default. This screen displays all enabled workflows assigned to a specific user role.

3. Click the (**Run workflow**) button from the Card view of the *Modify Virtual Server* workflow.

4. In the **F5 LTM Device** field, click the click the  (**Retrieve field values**) button to fetch the list of managed F5 LTM devices.
5. In the **F5 LTM Device** field, select the device that contains the virtual server that you want to delete.
6. In the **Virtual Servers** field, click the click the  (**Retrieve field values**) button to fetch the list of virtual servers on the device you selected in Step 5.
7. Select one or more virtual servers from the **Virtual Servers** dropdown list.
8. In the **Do you want to integrate ITSM** field, select the **Yes** radio button. This creates a ServiceNow change request ticket and binds it to the work order to update the ServiceNow status.



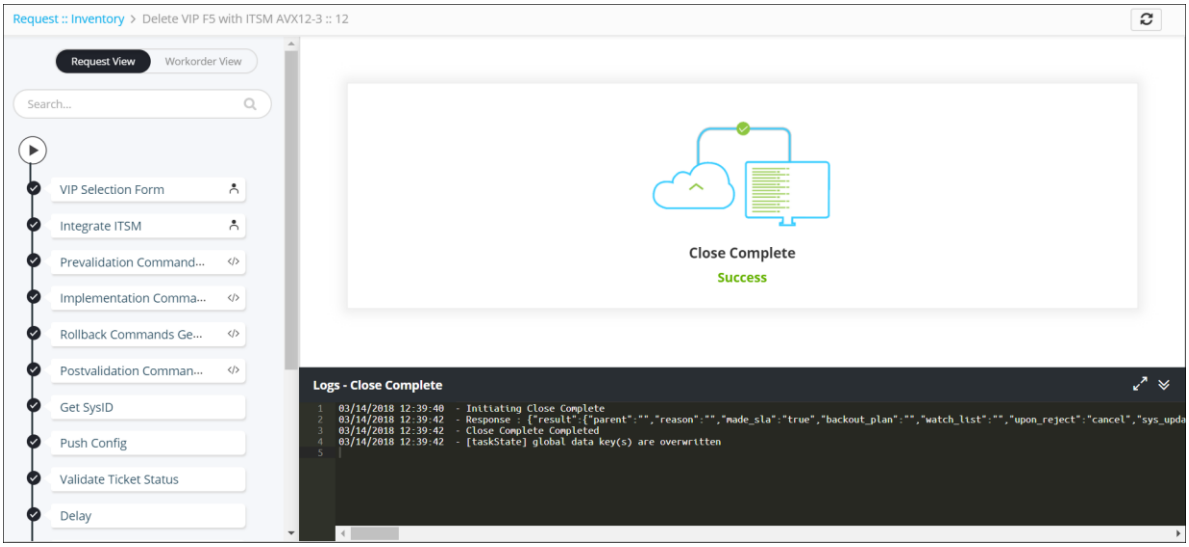

   a. Select the **Time Zone** of the F5 LTM device that you are configuring.
   b. Schedule the maintenance window time and date using the **Planned Start Date** and **Planned End Date** fields. The configuration changes will be implemented during this maintenance window.
   c. Click the **Create ServiceNow Request** button to create a new ServiceNow ticket and auto-populate the **Change Request ID** field.

      AppViewX then creates the ServiceNow change request and populates the change request fields like **Configuration item**, **Planned start date**, and **Planned end date** from the self-service form. The **Change plan** field is populated with the proposed F5 LTM configuration changes, which can be reviewed at any time by the approver.
9. Click **Submit** to submit the self-service form and create the work order and associate it with the ServiceNow change request ID (RFC-ID) in the AppViewX system.

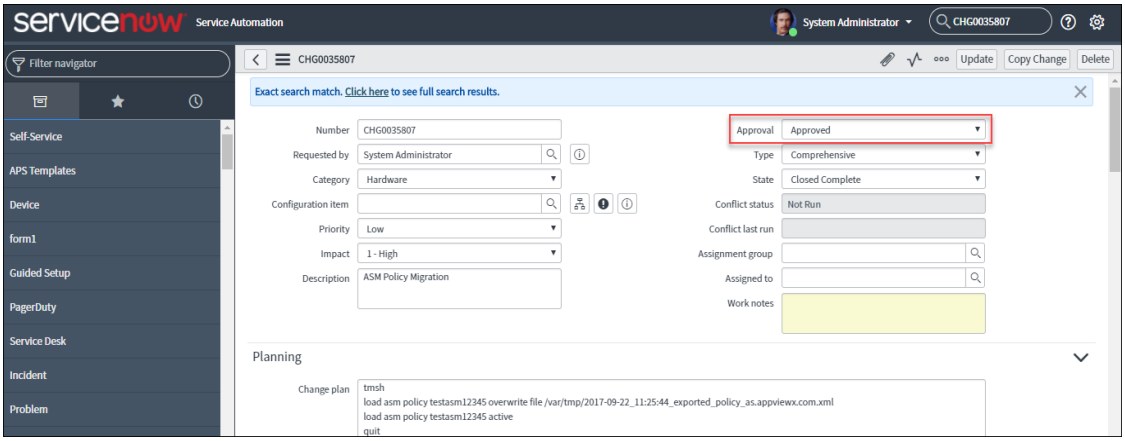
# Workorder Flow

The following are the workorder tasks of the *Delete Virtual Server* workflow.

**Note:** You can click each task to view its details. Wherever applicable, all logs related to the selected task are displayed in the **Logs** pane at the bottom of the screen.



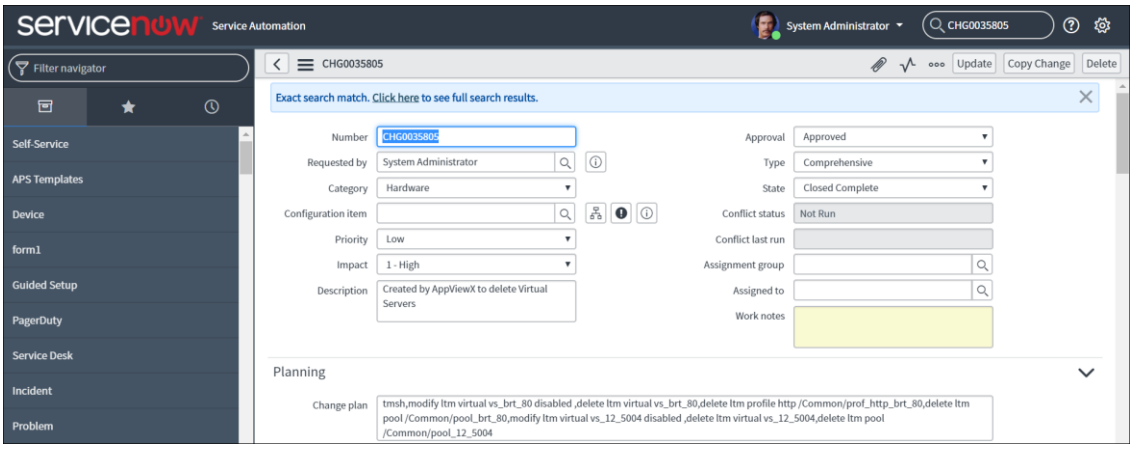

1. **Integrate ITSM** ─ ITSM is integrated with the *Delete Virtual Server* workflow.
2. **Pre-validation Command Generation**─ Pre-validation commands are generated to initiate the pre-validation process.
3. **Implementation command generation** ─ Configuration commands are generated to implement the deletion of a virtual server from a source device.
4. **RollBack command generation** ─ Configuration commands are generated to implement the deleted virtual server and their LTM objects from a source device.
5. **Post-validation command generation** ─ Post validation commands are generated to initiate the post-validation process.
6. **Get SYSID** ─ The ticket information for the *Delete Virtual Server* workflow is generated to track the ServiceNow request.
7. **Push Config** ─ Push the configuration commands to the ServiceNow ticket.
8. **ValidateTicket Status** ─ To validate the ticket, log in to ServiceNow and manually approve the ticket.




9. **Approval I** ─ Approval of a work order is based on the role assigned to the user, who has access to approve and implement. After you submit the request form, the

configuration changes are reviewed and approved at AppViewX. The configuration changes are implemented on the device only after the approval is received.

10. **ValidateTicket Status** – To validate the ticket, log in to ServiceNow and manually approve the ticket.
11. **Prevalidation** – Check the following:
    - A list of virtual servers is available in the source and destination devices.
    - The performance metrics, such as CPU and memory utilization on the destination device, are validated.
12. **Implementation** – Configuration commands are implemented for the deletion of a virtual server from a source device.
13. **Post-Validation** – Checks if the virtual server has been deleted successfully.
14. **Close Complete** – After successful deletion of the virtual server, the status of the ServiceNow ticket updates automatically.




# Rollback a Workflow

A rollback action can be performed only on the completed workflows. To trigger a rollback action, complete the following steps:

1. Click the (**Menu**) button.
2. Navigate to **Workflow** > **Request**.

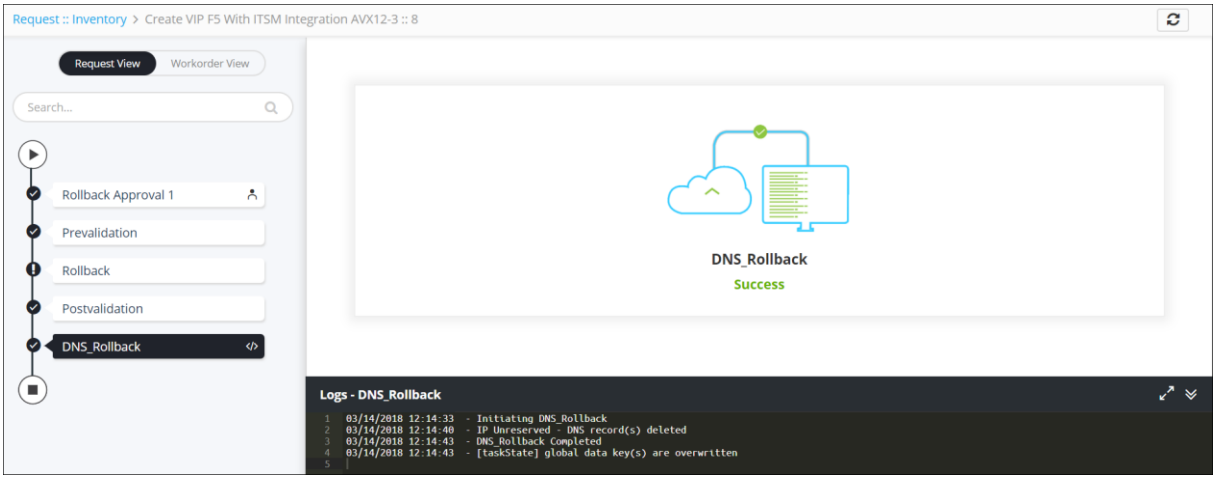
   The *Request* screen opens with **My catalog** tab displayed by default.
3. Click the **Request Inventory** tab.

   This displays all workflows that have been triggered. On the **Request Inventory** screen, you can search for a request created for *Delete a Virtual Server* workflow using the **Search** field and/or click the (**Filter**) button.
4. Right-click the request and select **Rollback**.
5. On the Confirmation screen that appears, click **Yes**.
6. Select the **Request** or **Workorder** radio button based on how you want to set the rollback type.
7. Click **Rollback** to trigger the action.

# Workorder Flow

The following are the workorder tasks of *Delete a Virtual Server* workflow.

**Note:** You can click each task to view its details. Wherever applicable, all logs related to the selected task are displayed in the Logs pane at the bottom of the screen.




1. **Rollback Approval** – The configurations to recreate the deleted virtual server and corresponding LTM objects can be reviewed and approved in AppViewX. The configuration changes are implemented only after an approval.
2. **Prevalidation** – Check the following:
   - The list of virtual servers to be recreated already exist.
   - The performance metrics, such as CPU and memory utilization of the device.
3. **RollBack** – The configuration commands are implemented for recreating the deleted virtual server and corresponding LTM objects on the selected device.
4. **Post-Validation** – Checks if the virtual server has been created successfully.

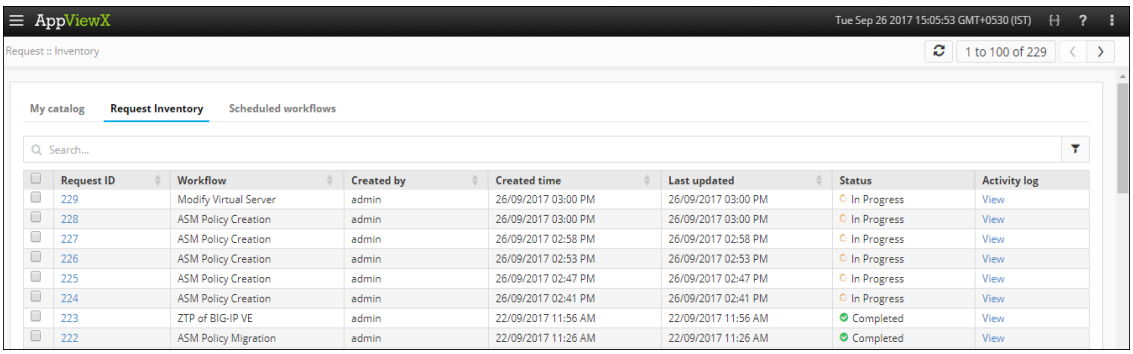
# Request Inventory

To go to the Request inventory, complete the following steps:

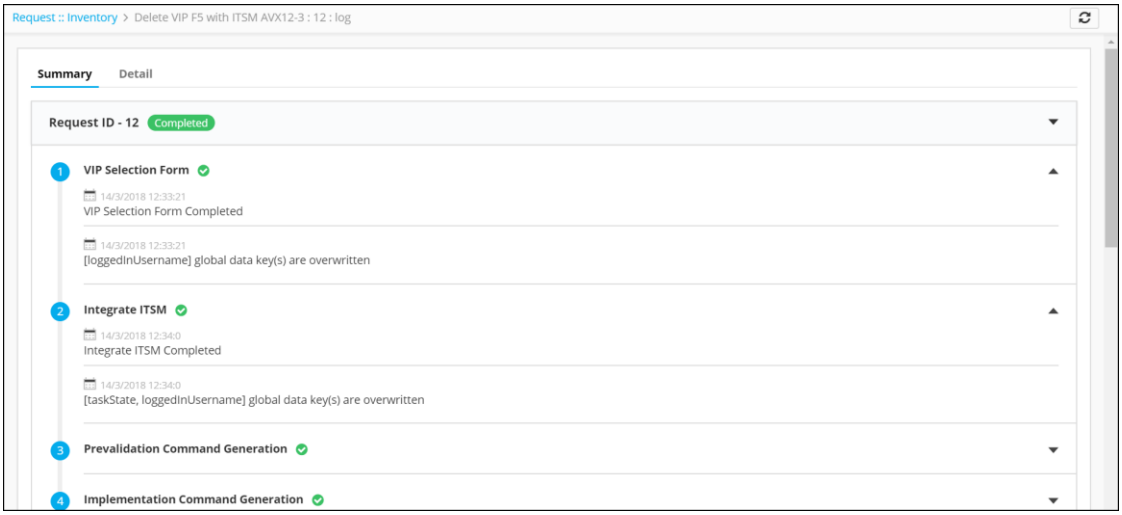
1. Click the (**Menu**) button.
2. Navigate to **Workflow** > **Request**.

   The *Request* screen opens with **My catalog** tab displayed by default.
3. Click the **Request Inventory** tab.

   This displays all workflows that have been triggered. On the **Request Inventory** screen, you can search for a request using the **Search** field and/or click the (**Filter**) button to select the options you want to use to sort the requests.



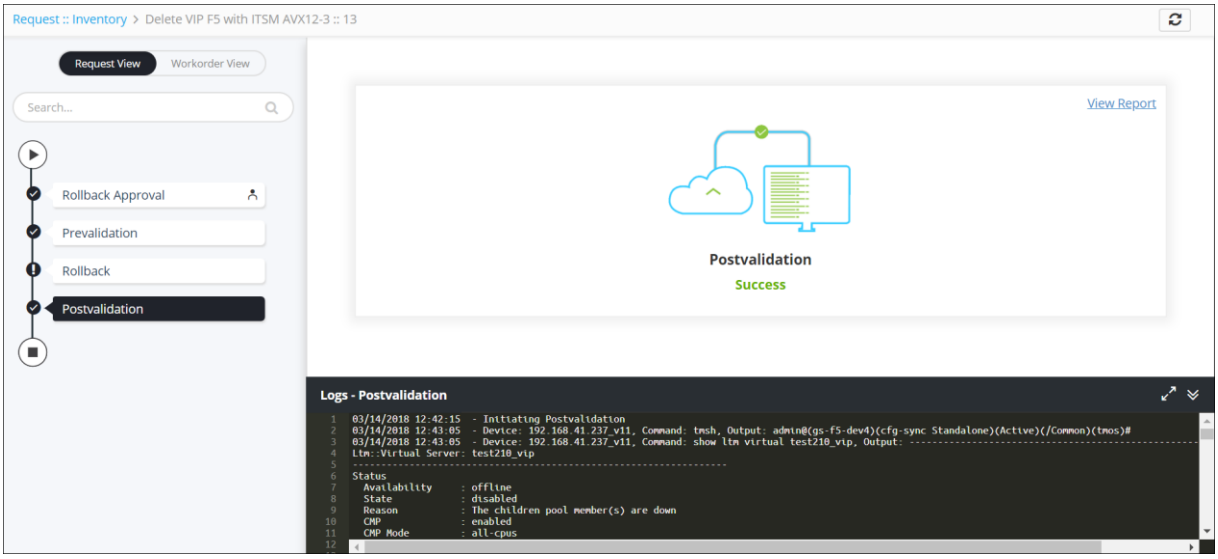

4. Click the **Request ID** of the requested workflow to view the tasks or phases of a request in a tree-view.
5. You can also view the following details of the request that are created: by whom and when the Request was created, Last updated time, Status and the Activity log.
6. Click the **View** link in the **Activity log** column to display the request in stage view. In the **Summary** tab, click the  (**Expand**) icon to view the details of each task. Click the **Details** tab to view log messages and other particulars of a request.




## Rollback

The following are the workorder tasks of *Delete a Virtual Server* workflow.

**Note:** You can click each task to view its details. Wherever applicable, all logs related to the selected task are displayed in the Logs pane at the bottom of the screen.




5. **Rollback Approval** – Review of a work order is based on the role assigned to the user, who has access to approve and implement. After you submit the request form, the configuration changes are reviewed and approved at AppViewX. Configuration changes are implemented on the device only after approval is received.
6. **Prevalidation** – Check the following:
   - A list of virtual servers available in the source and destination device.
   - The performance metrics, such as CPU and memory utilization on the destination device have been validated.
7. **RollBack** – The configuration commands are rolled back resulting in the deleting of a virtual server and new LTM object is created from a source device.
8. **Post-Validation** – Checks if the virtual server has been deleted successfully.

## Schedule a Workflow

To schedule a workflow, complete the following steps:

1. Click the (**Menu**) button.
2. Navigate to **Workflow** > **Request**.

   The *Request* screen opens with the **My catalog** tab displayed by default.
3. Click the (**Schedule workflow**) button on the respective workflow.
4. On the window that opens, select the frequency of the policy migration process: once, hourly, daily, weekly, monthly, or yearly. The remaining fields in the Scheduler region update based on what you select.
5. Click **Save**.

# View Scheduled Workflows

To go to the scheduled workflow screen, complete the following steps:

1. Click the  (**Menu**) button.
2. Navigate to **Workflow** > **Request**.
3. The *Request* screen opens with the **My catalog** tab displayed by default.
4. Click the **Scheduled workflows** tab.
5. On the Scheduled workflow screen that appears, you can perform the following tasks:
    - In the **View log** column, click **View** to display the details of a scheduled workflow.
    - Click the  (Pause) or  (Resume) button to temporarily stop or continue the execution of a workflow.

# Troubleshooting

### I cannot find the workflow in the Request Catalog

You must enable the workflow from the Configurator section. For more details on how to enable a workflow, refer to the Enable a Workflow section of this guide.