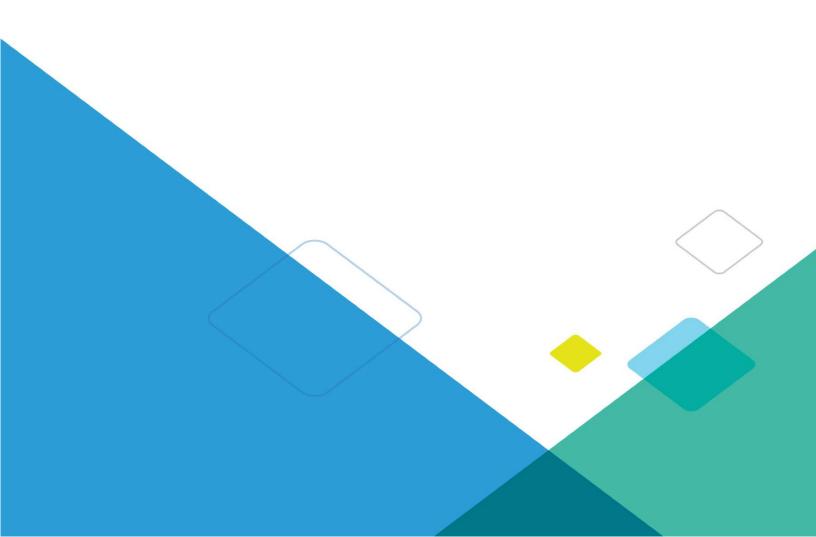


vCloud Demonstration

# Infoblox & ForeScout CounterACT Integration



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#### **Overview**

This document describes how to demonstrate integration with ForeScout CounterACT via Infoblox's Outbound API.

The Outbound API templates are published "as is" on the Infoblox community website and are only supported via the Infoblox community website. The Infoblox community website is located at <a href="https://community.infoblox.com/">https://community.infoblox.com/</a>.

## **Description**

The lab consists of:

- 1. Infoblox Grid with NIOS 8.4.4
  - a. Grid Master (IB-VM-810)
- 2. Windows 10 workstation with ForeScout CounterACT console installed
- ForeScout:
  - a. VCEM-5B
    - i. VTC-2000

System [Name]	Access	Login / Password
pfSense virtual router [pfSense]	172.0.0.1	admin / pfsense
Infoblox Grid Master [DDI]	https://172.0.0.3	admin / infoblox
ForeScout Enterprise Manager Console  [ForeScout]	172.0.0.14	admin / infoblox@123
Windows workstation [Win10]	172.0.0.100	rdp / rdp

## Requirements

Before starting the demo ensure that the following requirements have been met:

You have internet connectivity via Google Chrome, or Firefox

You have access to the devices [DDI] and [Win10]

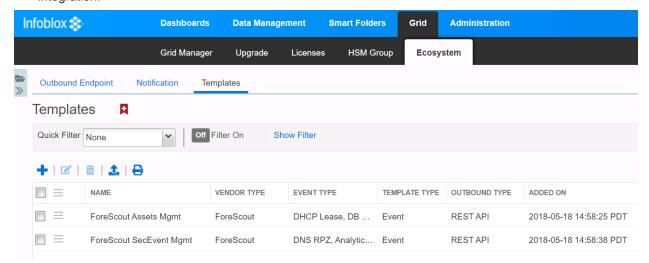
You have access to the device [ForeScout] via the CounterACT Console. The CounterACT Console (a) is located on the Task Bar of [Win10]

## **Demo Script**

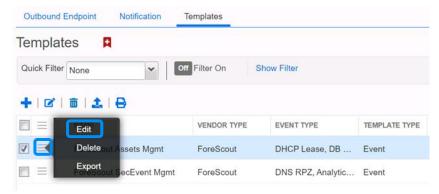
#### Infoblox Configuration Overview

This is an optional step to briefly overview the interface and configuration of Infoblox device **[DDI]** for this integration.

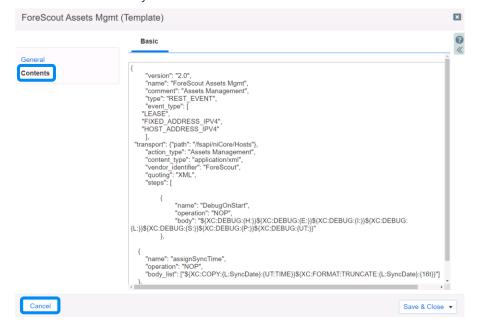
[DDI] Navigate to Grid → Ecosystem → Templates. Here you can see the templates used for this integration.



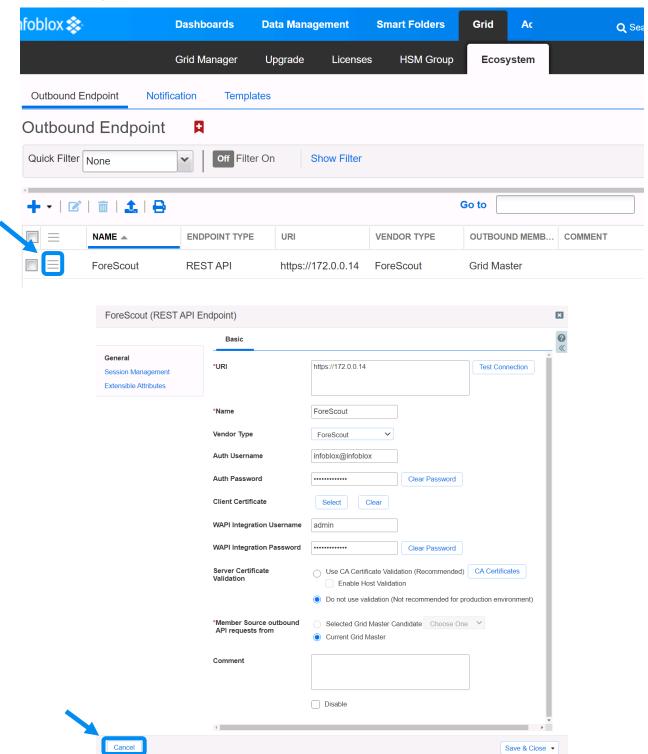
[DDI] Click the = hamburger icon next to the template ForeScout Assets Mgmt. Select Edit.



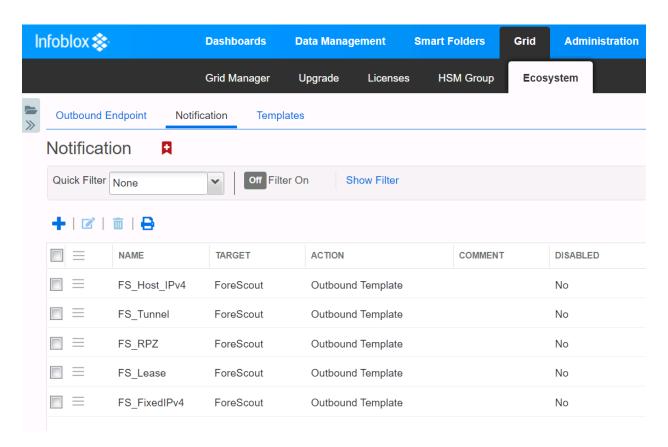
3. **[DDI]** Navigate to the **Contents** tab in the left panel. Here you can view and edit the contents of the template. Click **Cancel** when you are finished.



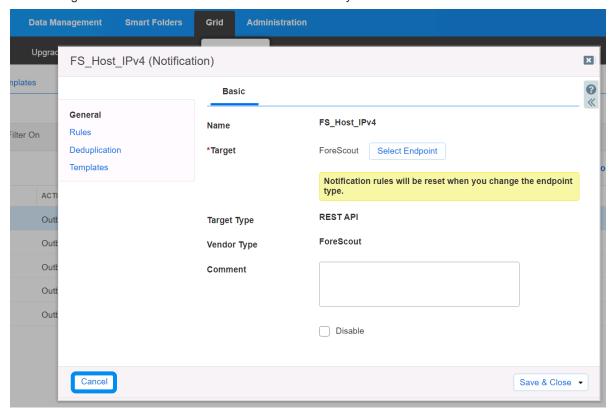
4. [DDI] Navigate to Grid → Ecosystem → Outbound Endpoint. Select the = hamburger icon next to ForeScout. Select Edit. Here you can see the endpoint configuration with ForeScout. Click Cancel when you are finished.



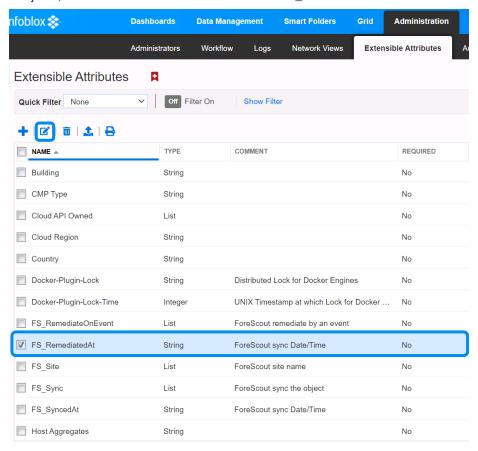
5. **[DDI]** Navigate to **Grid** → **Ecosystem** → **Notification**. **Notifications** are configurable rules that define which templates to execute when NIOS events occur under certain circumstances.



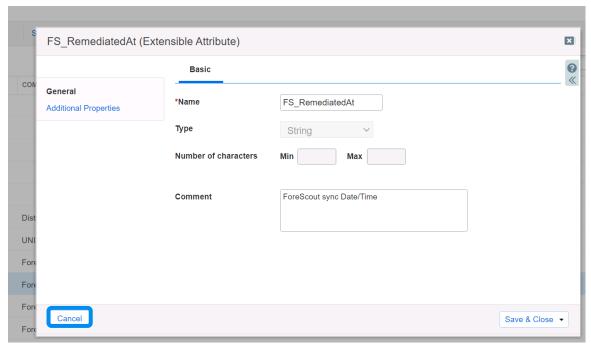
6. **[DDI]** Click the  $\equiv$  hamburger icon next to **FS\_Host\_IPv4**. Select **Edit**. Here you will see the configuration for the **Notification**. Click **Cancel** when you are finished.



7. **[DDI]** Navigate to **Administration** → **Extensible Attributes**. Extensible Attributes attach additional data to objects, such as hosts. Scroll down and select **FS\_RemediatedAt**. Click the **Edit** icon.



8. **[DDI]** Here you can view the configuration for the Extensible Attribute **FS\_RemediatedAt**. Click **Cancel** when you are finished.



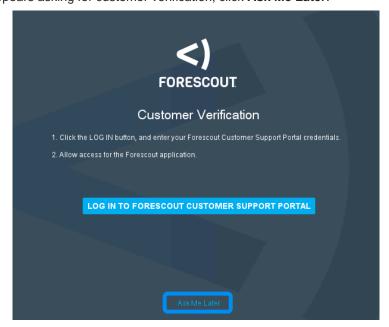
## ForeScout Configuration Overview

This is an optional step to briefly overview the interface and configuration of the ForeScout device **[ForeScout]** for this integration.

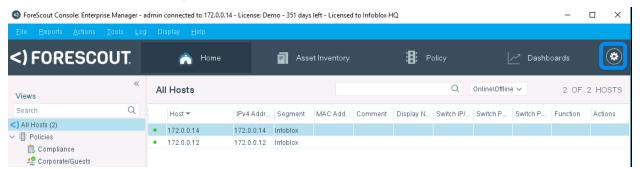
1. **[Win10]** Double-click the ForeScout CounterACT console icon **(s)** pinned to the taskbar of **[Win10]**. The login credentials are found in the Description section of this script.



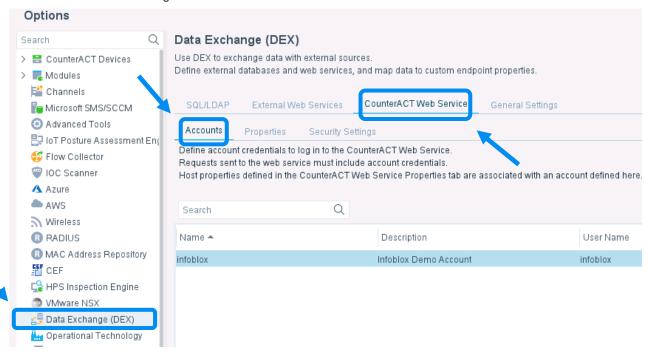
2. If a menu appears asking for customer verification, click **Ask Me Later**.



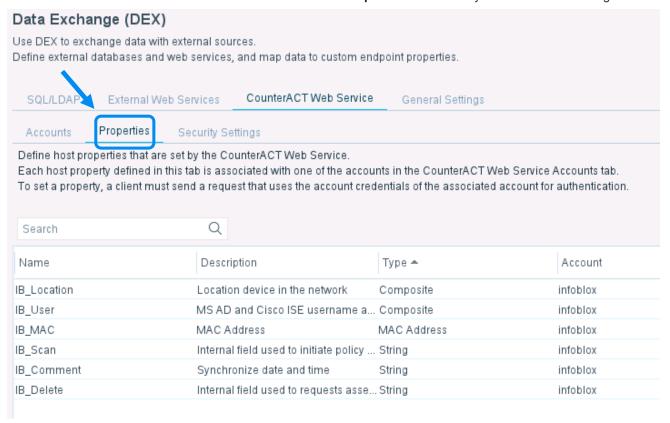
3. **[ForeScout]** Open the **Options** menu by clicking on the **Gears** icon located on the topbar. You can also select **Tools** → **Options**.



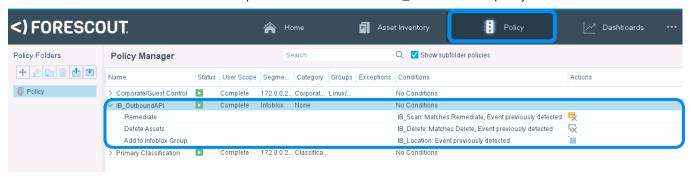
4. [ForeScout] In the left side panel, click Data Exchange. Navigate to CounterACT Web Service → Accounts. This is the account used by the NIOS Outbound API to access the CounterACT Web Service for the integration.



5. **[ForeScout]** Click the **Properties** tab. These are the custom attributes associated with NIOS objects added to ForeScout via the Outbound API. Close the **Options** menu when you are finished viewing it.



6. **[ForeScout]** Navigate to the **Policy** tab in the topbar. Policies govern how your assets are organized and define how ForeScout will respond to threats. View the **IB\_OutboundAPI** policy here.

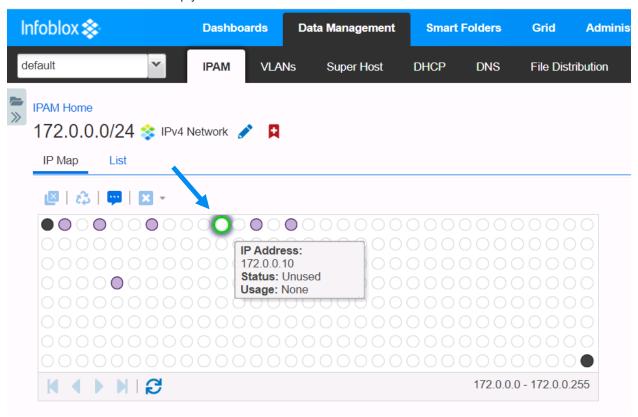


### Use Case: Asset Management

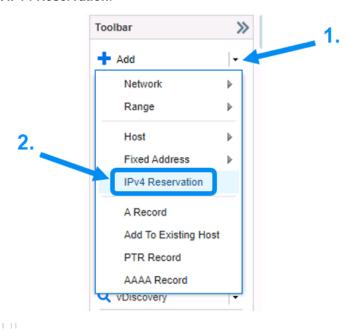
This use case shows how to manage assets using the ForeScout integration. This integration supports Hosts, Fixed IPs, Reservations, and IPv4 and IPv6 Leases. Additionally, ForeScout policies can be applied to delete assets when its properties change.

- (Optional) [DDI] Navigate to Grid → Ecosystem → Outbound Endpoint. Select the 
   icon next to ForeScout and click Clear Debug Log.
- [DDI] Navigate to Data management → IPAM → 172.0.0.0/24.
- 3. [DDI] Let's create an IPv4 Reservation on the address 172.0.0.10.

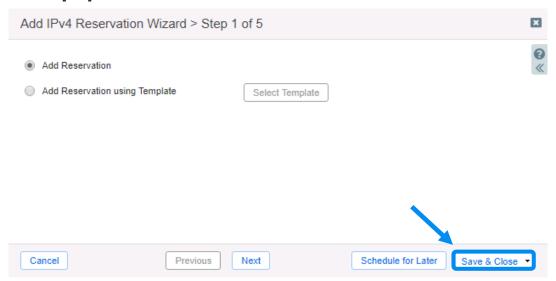
a. Select the empty bubble for address 172.0.0.10.



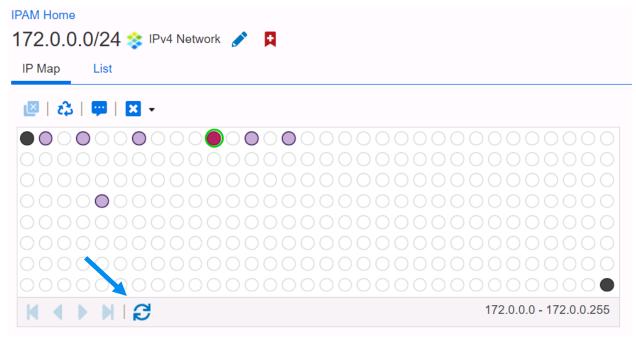
b. **[DDI]** In the **Toolbar** towards the right, click the downward facing arrow to the right of **Add**. Select **IPv4 Reservation**.



c. [DDI] Click Save & Close.



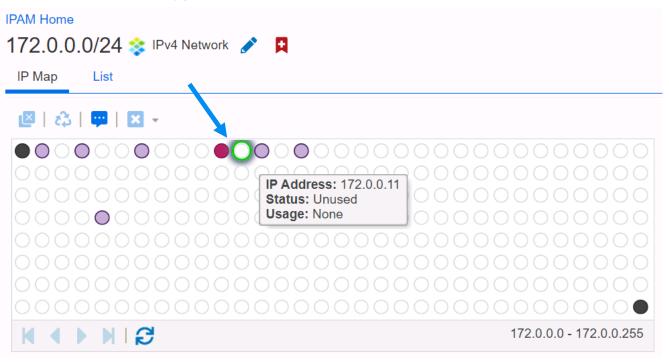
d. **[DDI]** Wait at least 10 seconds. Click the **Refresh** button.



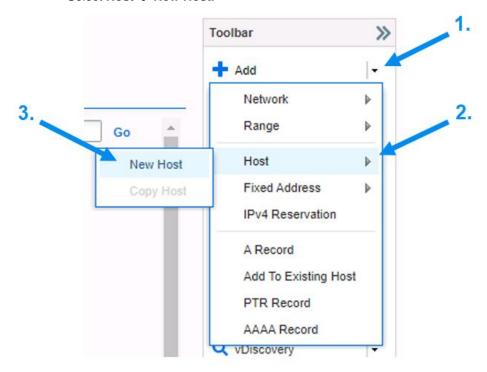
e. **[DDI]** Scroll down to view the Extensible Attribute **FS\_SyncedAt** for the newly made reservation. This value shows when the asset was added to **[ForeScout]**.



- 4. [DDI] Let's create a Host on the address 172.0.0.11.
  - a. Select the empty bubble for address 172.0.0.11.



b. [DDI] In the Toolbar towards the right, click the downward facing arrow to the right of Add.
 Select Host → New Host.



a Man<u>agement</u> × Add Host Wizard > Step 1 of 3 0 .poc.infoblox.local Name test Select Zone Clear « ✓ Enable in DNS **✓** Protected Restrict DDNS updates to this Host Allow Underscore **Host Name Policy** To update the host settings, first complete and save the Host configuration, and then update the settings in the Host editor. IPv4 Addresses + - | 🖮 IPV4 ADDRESS MAC ADDRESS DHCP **172.0.0.11** IPv6 Addresses IPV6 ADDRESS DHCP DUID No data

c. [DDI] Give the Host a Name. Select the Zone .poc.infoblox.local. Click Save & Close.

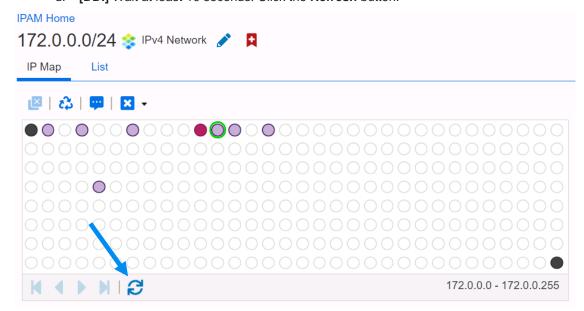
d. [DDI] Wait at least 10 seconds. Click the Refresh button.

Next

Previous

172.0.0.11

IP Address for Extensible Attribute



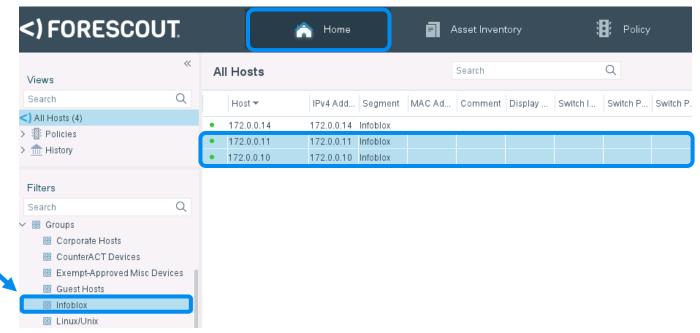
Save & Close

Schedule for Later

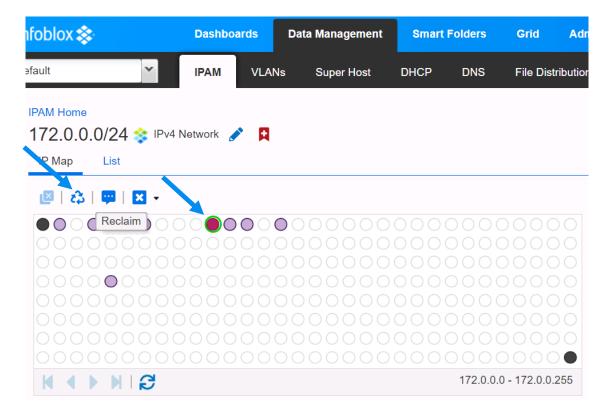
e. **[DDI]** Scroll down to view the contents of the Extensible Attribute **FS\_SyncedAt** for the newly made reservation. This value shows when the asset was added to **[ForeScout]**.



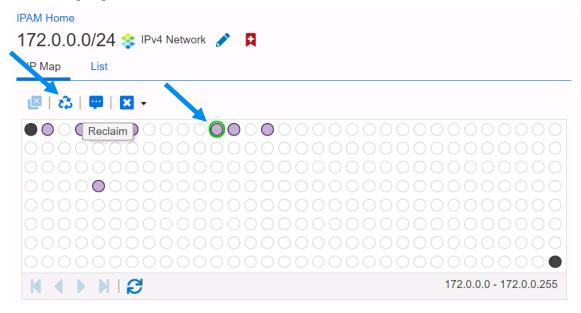
[ForeScout] In the ForeScout CounterACT console, click the Home tab in the topbar. In the left side
menu inside the Filters panel, click the Infoblox Group. The IPv4 Reservation and the Host you just
created in NIOS appear here.



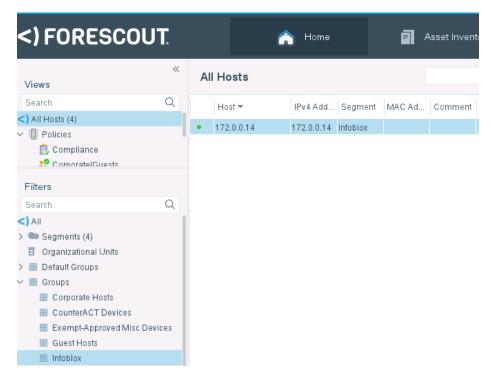
- 6. **[DDI]** Now we will delete both the **Host** and **IPv4 Reservation**.
  - a. [DDI] In NIOS, navigate to Data management → IPAM → 172.0.0.0/24.
  - b. [DDI] Select the address bubble for address 172.0.0.10. Click the Reclaim button.



c. [DDI] Select the address bubble for address 172.0.0.11. Click the Reclaim button.



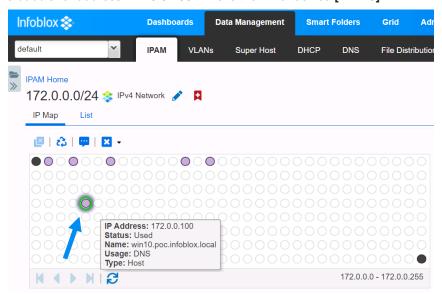
7. **[ForeScout]** In the **ForeScout CounterACT Console**, click the **Home** tab. In the left side menu inside the **Filters** panel, click the **Infoblox** Group. Verify the **IPv4 Reservation** and **Host** have been deleted from the Group. *Note their data still exists under All Hosts*.



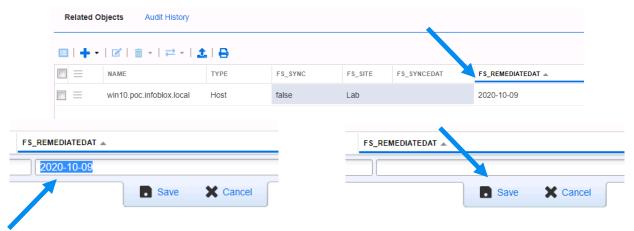
#### Use Case: Security Remediation

This use case shows Infoblox's ability to respond to DNS security events and apply ForeScout policies to offending assets.

- 1. (Optional) [DDI] Navigate to Grid → Ecosystem → Outbound Endpoint. Select the = hamburger icon next to ForeScout and click Clear Debug Log.
- [DDI] Navigate to Data management → IPAM → 172.0.0.0/24.
- 3. Select the bubble for address 172.0.0.100. This is the IP for device [Win10].



- 4. **[DDI]** Verify that the Extensible Attribute **FS\_RemediatedAt** is cleared. If the Extensible Attribute is not empty, clear it by performing the following steps:
  - a. Double-click on the **FS\_RemediatedAt** content.
  - b. Delete the text.
  - c. Click Save.



5. **[Win10]** Open a command line. A shortcut is pinned to the taskbar. Input the command **nslookup example.com 172.0.0.3**. The response will be a NXDOMAIN showing that an RPZ event has occurred.

```
C:\Windows\system32>nslookup example.com 172.0.0.3

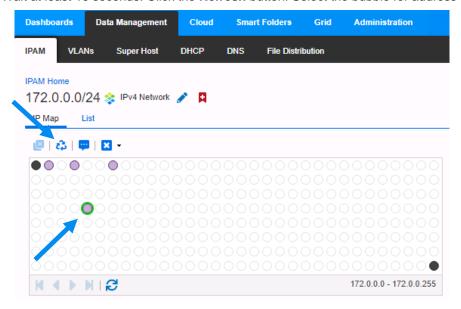
Server: 172-0-0-3.lightspeed.brhmal.sbcglobal.net

Address: 172.0.0.3

*** 172-0-0-3.lightspeed.brhmal.sbcglobal.net can't find example.com: Non-existent domain

C:\Windows\system32>_
```

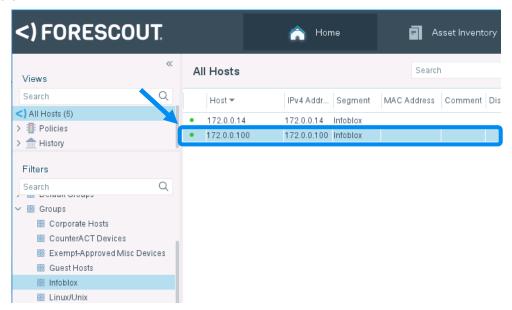
6. [DDI] Wait at least 10 seconds. Click the Refresh button. Select the bubble for address 172.0.0.100.



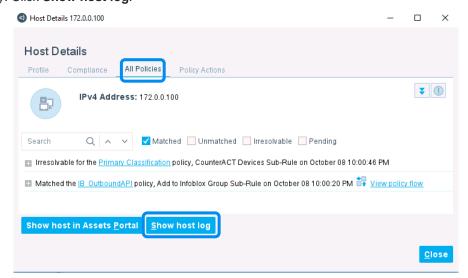
7. **[DDI]** Verify that the Extensible Attribute **FS\_RemediatedAt** has been updated.



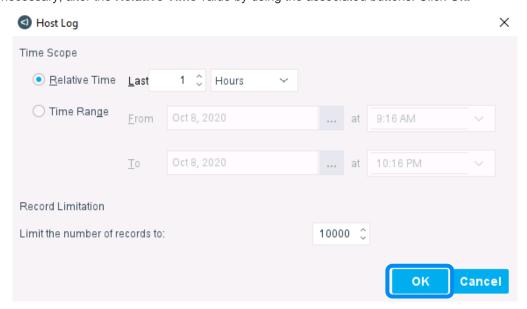
8. **[ForeScout]** In the **ForeScout CounterACT Console**, click the **Home** tab in the topbar. In the left side menu inside the **Filters** panel, click the **Infoblox** Group. The Windows machine host appears here.



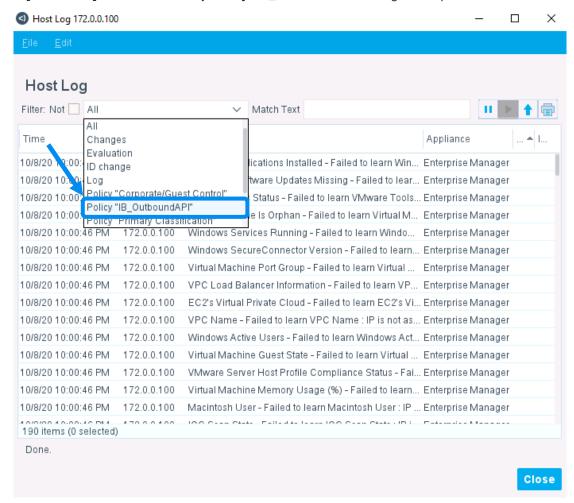
[ForeScout] Double-click on the host. Here you can see more information about the host, including
the custom Infoblox properties shown in step 5 of the <u>ForeScout Configuration Overview</u> section of this
document. In the popup, navigate to **All Policies**. Observe the host matched the **IB\_OutboundAPI**policy. Click **Show host log**.



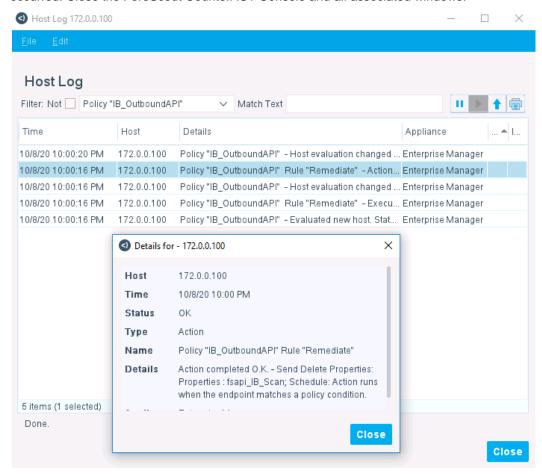
10. **[ForeScout]** In the **Host Log** window that is revealed, retrieve all records generated in the last hour. If necessary, alter the **Relative Time** value by using the associated buttons. Click **Ok.** 



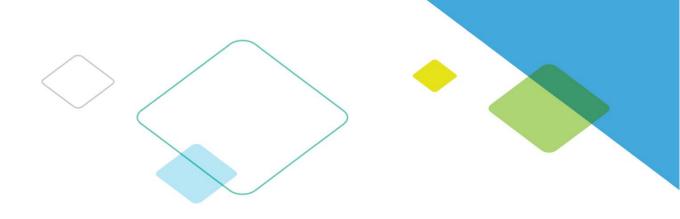
11. [ForeScout] Filter the results by Policy "IB\_OutboundAPI" using the dropdown menu.



12. **[ForeScout]** Here you can see the actions ForeScout has taken on this host. Confirm remediation has occurred. Close the ForeScout CounterACT Console and all associated windows.



13. (Optional) **[DDI]** If you would like to view the steps performed by the **Outbound Endpoint**, navigate to **Grid → Ecosystem → Outbound Endpoint**. Select the ≡ hamburger icon next to **ForeScout** and click **View Debug Log**.





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