



How to Manage DHCP Servers using SolarWinds® IP Address Manager™

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How to Manage DHCP Servers using SolarWinds IPAM

[SolarWinds IP Address Manager](#) (IPAM) offers powerful and centralized management of Microsoft® DHCP servers. Using SolarWinds IPAM you can easily:

- Add new or edit existing Microsoft DHCP servers and scopes
- Set, update or delete reservations, reservation status and DHCP properties, including IP ranges and exclusions

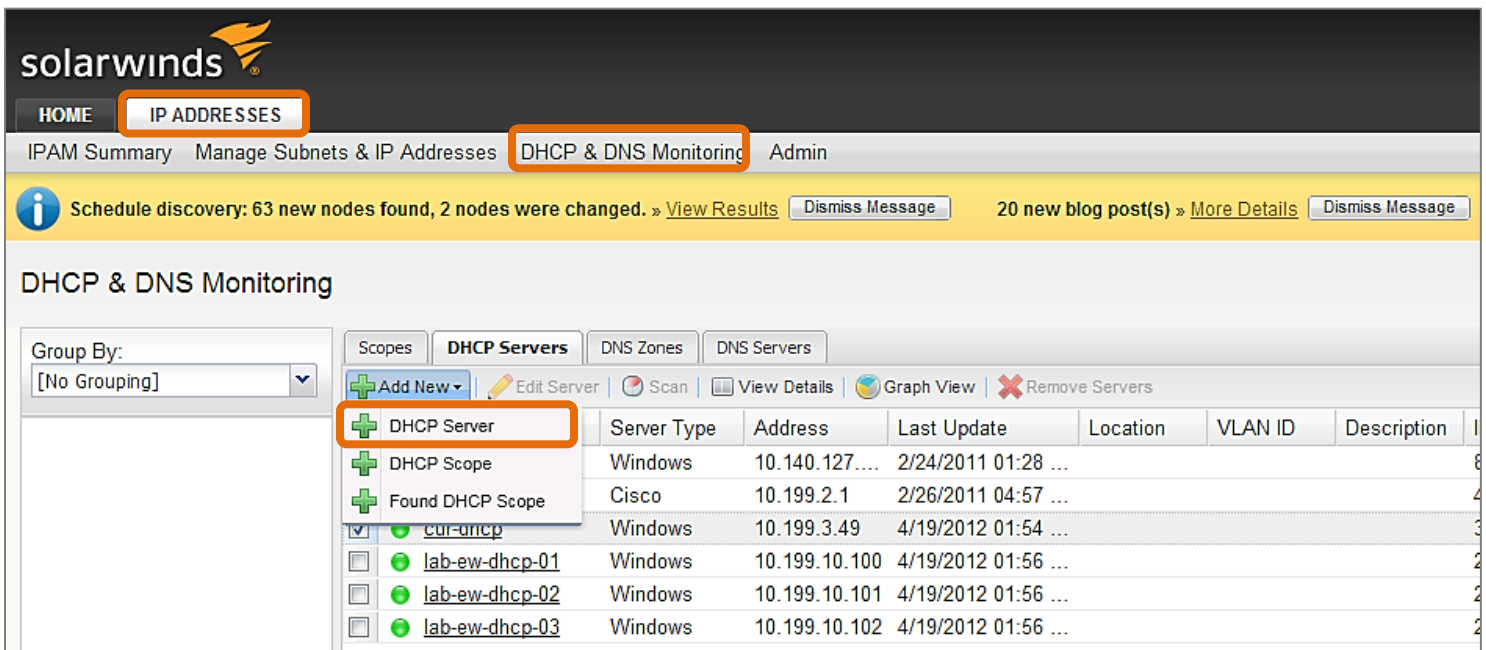
SolarWinds IPAM solution allows you to manage both Microsoft DHCP servers and monitor Cisco® IOS DHCP servers.

Adding a DHCP Server

All DHCP servers must already exist as nodes before IPAM can monitor them. There are two options for adding nodes.

- Entering nodes manually one at a time
- Using the **Network Discovery Wizard** to add multiple nodes

Once the DHCP server is added as a node in Orion® server, you can add it to the IPAM web console by clicking the **IP Addresses** tab >> **DHCP & DNS Monitoring** >> **DHCP Servers** >> **Add New** >> **DHCP Server**



The screenshot shows the SolarWinds IPAM web console interface. The navigation bar includes 'HOME', 'IP ADDRESSES', 'IPAM Summary', 'Manage Subnets & IP Addresses', 'DHCP & DNS Monitoring', and 'Admin'. A yellow notification banner at the top states: 'Schedule discovery: 63 new nodes found, 2 nodes were changed. » View Results Dismiss Message' and '20 new blog post(s) » More Details Dismiss Message'. The main content area is titled 'DHCP & DNS Monitoring' and has tabs for 'Scopes', 'DHCP Servers', 'DNS Zones', and 'DNS Servers'. The 'DHCP Servers' tab is active, showing a table of servers. A 'Group By:' dropdown is set to '[No Grouping]'. Above the table are buttons for '+ Add New', 'Edit Server', 'Scan', 'View Details', 'Graph View', and 'Remove Servers'. The '+ Add New' button is highlighted with an orange box, and its dropdown menu is open, with 'DHCP Server' selected and highlighted. The table below contains the following data:

	Server Type	Address	Last Update	Location	VLAN ID	Description
<input type="checkbox"/>	Windows	10.140.127....	2/24/2011 01:28 ...			
<input type="checkbox"/>	Cisco	10.199.2.1	2/26/2011 04:57 ...			
<input checked="" type="checkbox"/>	Windows	10.199.3.49	4/19/2012 01:54 ...			
<input type="checkbox"/>	Windows	10.199.10.100	4/19/2012 01:56 ...			
<input type="checkbox"/>	Windows	10.199.10.101	4/19/2012 01:56 ...			
<input type="checkbox"/>	Windows	10.199.10.102	4/19/2012 01:56 ...			

Adding DHCP Server in SolarWinds IPAM (Step 1)

This will open up the **Add DHCP Server** page. Now, you can choose the required DHCP server from the list of nodes (already discovered by Network Discovery Wizard or manually added) and create or choose credentials.

Click **Test**, and once the test is successful, click **Add DHCP Server** to the IPAM web console.

DHCP & DNS Management ▸

Add DHCP Server

i All DHCP servers must already exist as nodes. You may [manually add nodes](#) or add nodes with [Network Sonar Discovery](#).
Only Cisco DHCP Servers and Microsoft DHCP Servers (Windows 2003 and 2008) are supported at this time.

Choose DHCP Server

Group By:
Machine Type ▾

- ▾ [Unknown]
 - 10.199.2.30
 - cur-dhcp

Choose Credentials for cur-dhcp

! All Credentials are sent in clear text. Consider only updating credentials through a browser while locally logged into the IPAM server or over an HTTPS connection.

Windows Credential ▾

Credential Name:

User Name:
Use DomainUsername format for Windows credentials

Password:

ASA Credential

TEST

✓ Test Successful
13 Scopes Found

DHCP Server Scan Settings

Scan DHCP Server for new scopes and leases every Hours ▾

Automatically add new scopes and subnets

New Scope and Subnet Settings

These settings will be applied upon creation. They can be changed once a subnet or scope has been added to IPAM.

Enable subnet scanning to pick up additional IP Address details

Scan subnets with ICMP and SNMP every Hours ▾

ADD DHCP SERVER

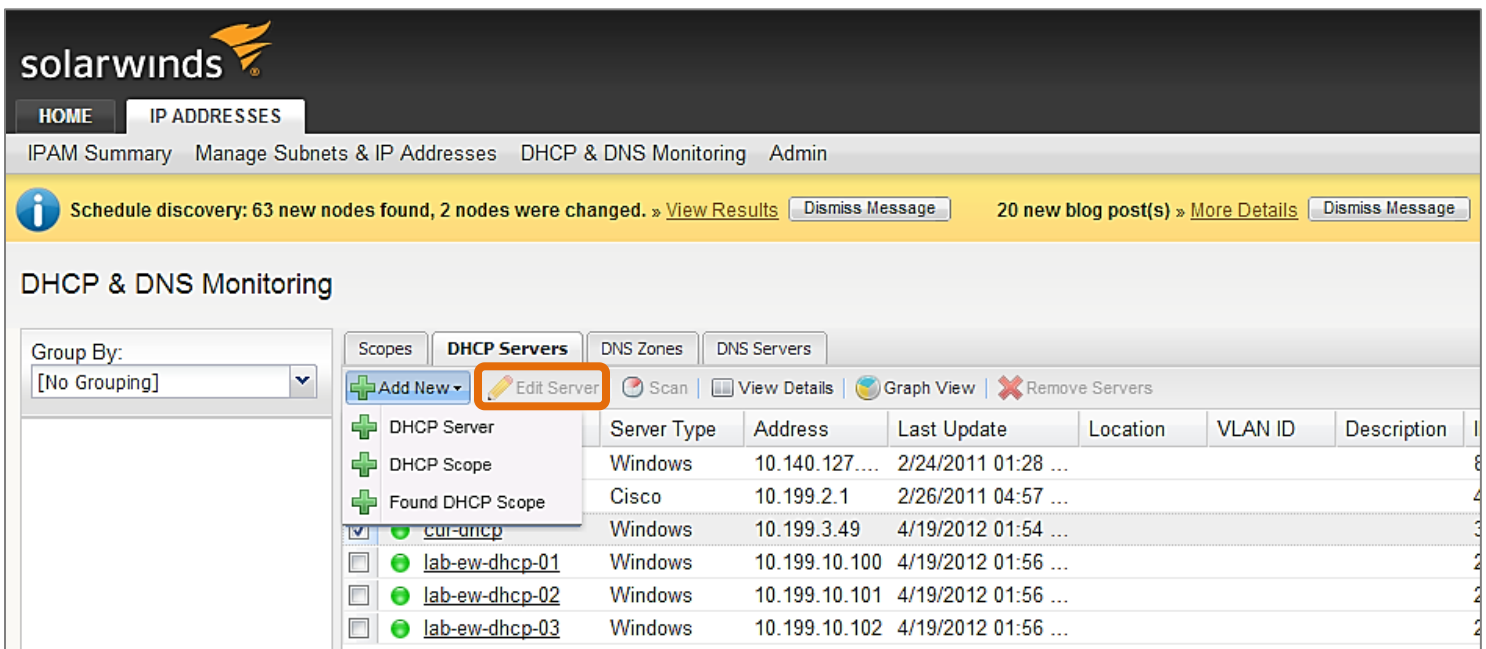
Adding DHCP Server in SolarWinds IPAM (Step 2)

Managing DHCP Server from SolarWinds IPAM Web Console

SolarWinds IP Address Manager helps to quickly and easily edit your DHCP server properties and credentials from a single centralized web console from any location on your network. With SolarWinds' IPAM tool, you can edit your DHCP server details, as well as edit your DHCP scopes to change settings, set, update, or delete IP address reservations on your Microsoft DHCP servers.

#1 Editing DHCP Server

On the **DHCP & DNS Monitoring** tab, select the DHCP server you want to manage and click **Edit Server**.



The screenshot shows the SolarWinds IPAM web console interface. At the top, there are navigation tabs for 'HOME' and 'IP ADDRESSES'. Below that, there are sub-tabs for 'IPAM Summary', 'Manage Subnets & IP Addresses', 'DHCP & DNS Monitoring', and 'Admin'. A yellow notification bar at the top right contains two messages: 'Schedule discovery: 63 new nodes found, 2 nodes were changed.' and '20 new blog post(s)'. The main content area is titled 'DHCP & DNS Monitoring' and features a 'Group By:' dropdown menu set to '[No Grouping]'. Below this, there are tabs for 'Scopes', 'DHCP Servers', 'DNS Zones', and 'DNS Servers'. The 'DHCP Servers' tab is active, and a dropdown menu is open under the 'Add New' button, with 'Edit Server' highlighted in orange. Below the menu, there is a table of DHCP servers with columns for 'Server Type', 'Address', 'Last Update', 'Location', 'VLAN ID', and 'Description'. The table contains several rows, including 'cur-dhcp' and 'lab-ew-dhcp-01' through 'lab-ew-dhcp-03'.

Editing DHCP Server in SolarWinds IPAM (Step 1)

This will open the DHCP Server Edit Properties window where you can:

- Add/edit DHCP Server Description, VLAN ID, Location, etc.
- Create Custom Fields to add descriptive text fields to IP addresses, subnets, supernets, groups, DHCP servers, and scopes.
- Change DHCP Server Credentials
- Modify DHCP Server Scan Settings

Edit bas-2621.bas2621.com's Properties

Server Type:

IP Address:

Description:
eg.: Roll-out note, allocation purpose, expected use date

VLAN ID:

Location:

Custom Fields

» [Add custom fields](#)

DHCP Server Statistics

Credentials

Windows Credential

CISCOS Credential

ASA Credential

DHCP Server Scan Settings

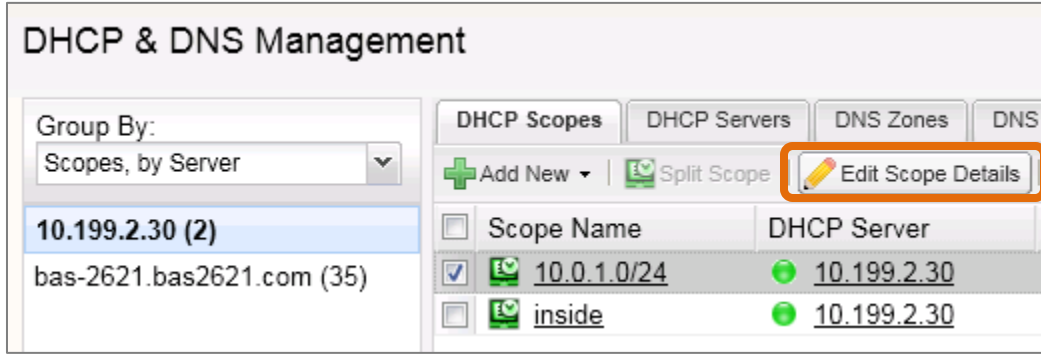
Scan DHCP Server for new scopes and leases every

Automatically add new scopes and subnets

Editing DHCP Server Settings in SolarWinds IPAM (Step 2)

#2 Managing DHCP Scopes on DHCP Server

SolarWinds [IPAM software](#) enables you to make changes in your DHCP server from the IPAM web console within just a few clicks. From the **DHCP & DNS Management** tab, select the **DHCP Scopes** tab, select the DHCP scopes as required, and click **Edit Scope Details** which will open up the **Edit DHCP Scope** page.

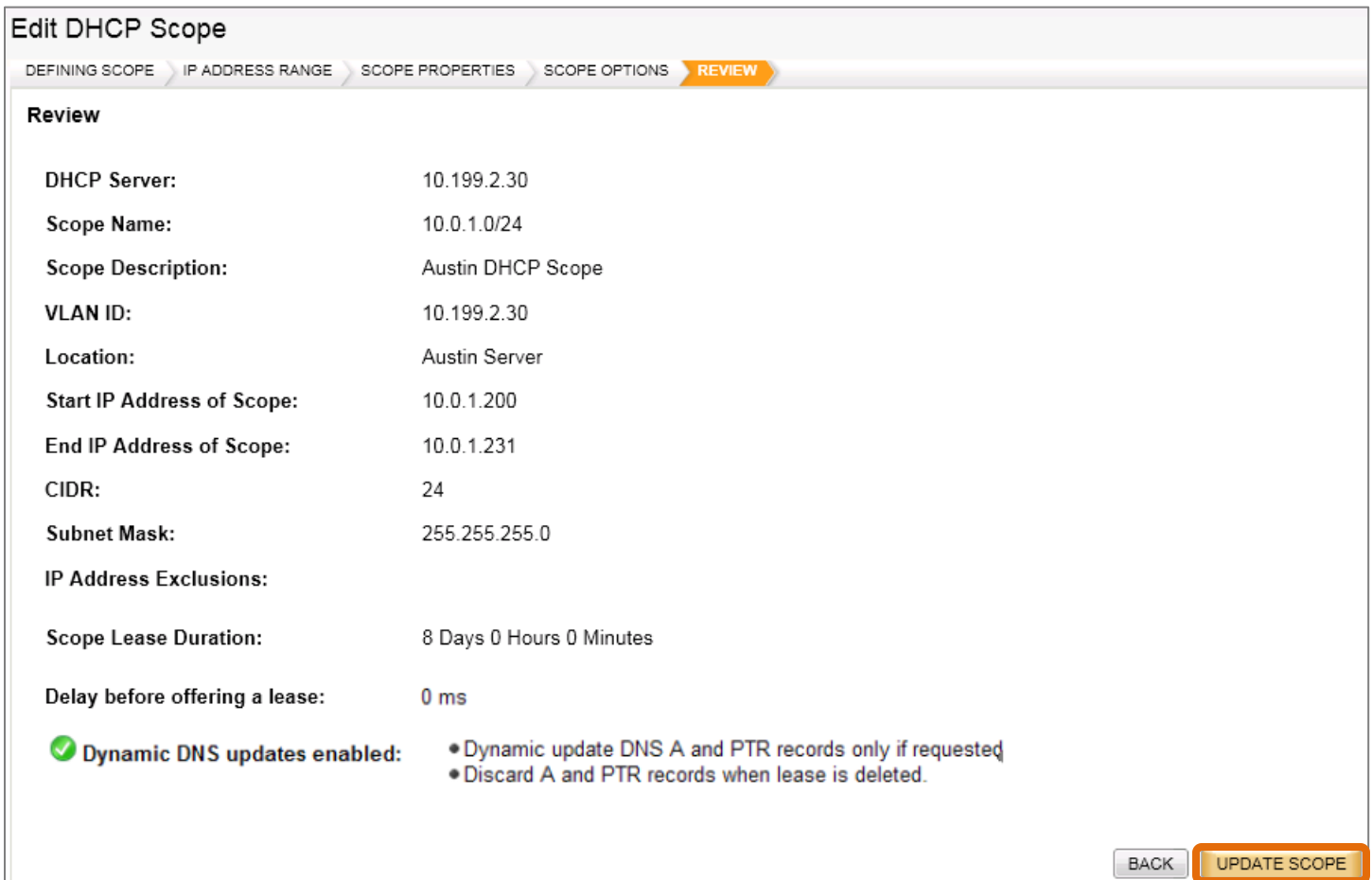


Editing Scopes in SolarWinds IPAM

On the **Edit DHCP Scope** page, you can:

- Define DHCP scope by specifying the DHCP server details
- Specify IP Address range by providing a set of consecutive IP addresses
- Define how long the scope lease should last

Once finished, click the **Update Scope** button to have these updates reflected in the DHCP server.



Updating DHCP Scope Details in Microsoft DHCP Server from SolarWinds IPAM

Note:

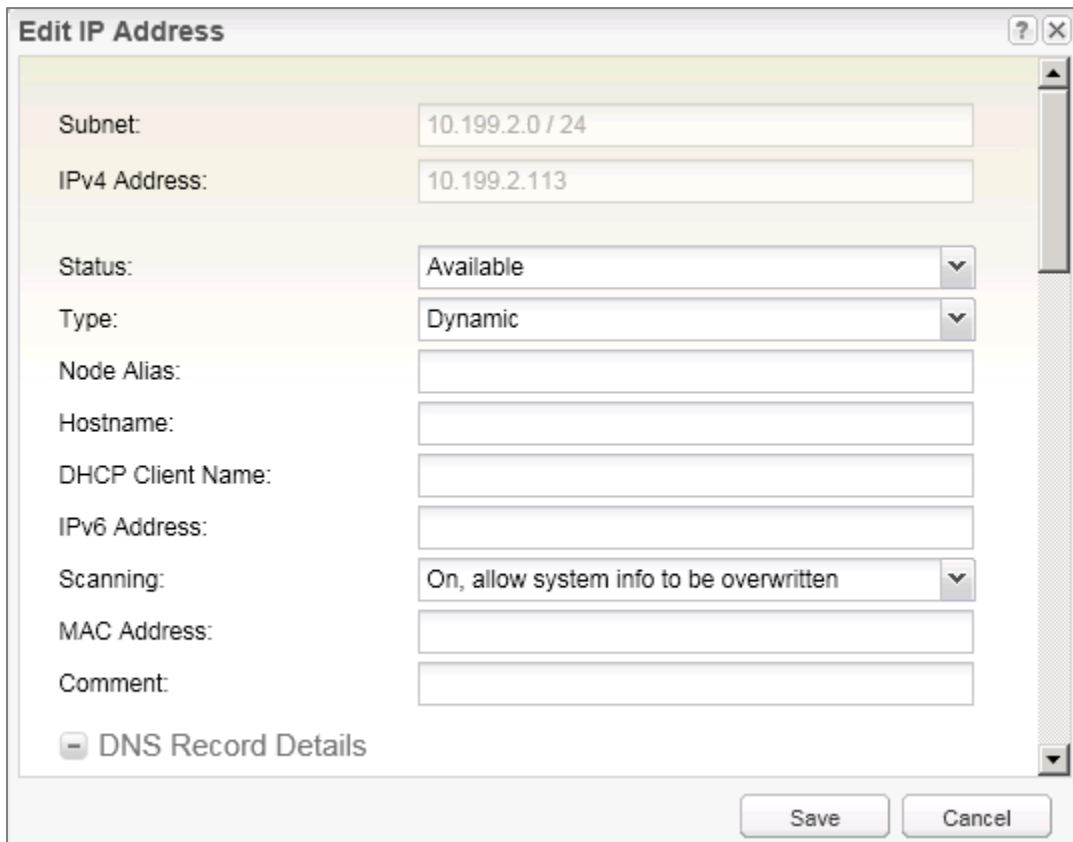
- A network with many mobile devices should have a shorter duration
- A network with computers at fixed locations may have a longer duration

This functionality allows you to add DHCP scopes, edit the properties, and remove them on your DHCP Server from one single centralized management console.

#3 Making IP Address Reservations on DHCP Server

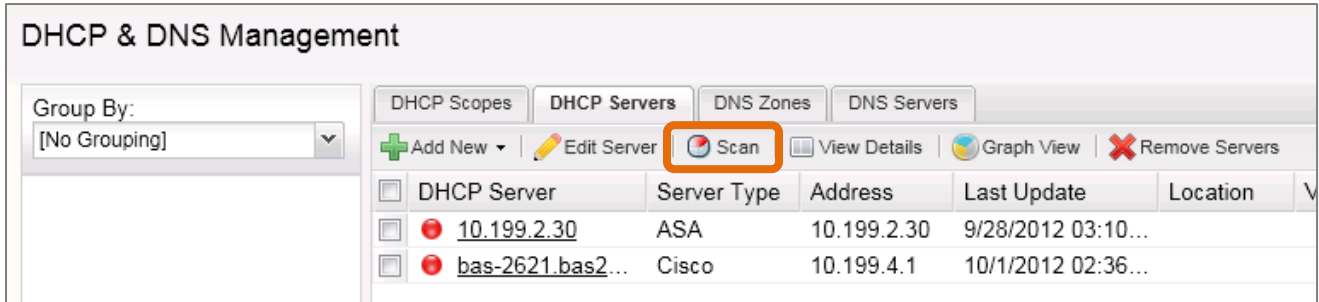
To change the status of IP addresses and reserve them on the DHCP Server, go to the **Manage Subnets & IP Addresses** tab, select the required DHCP scope on the left pane. Now, on the right pane where the IP addresses are listed with their current status, choose the required one(s) with **“Available”** status to have it reserved on the DHCP server, and click **Edit**.

On the **Edit IP Address** window that just opened, enter the Node Alias, Hostname, and the DHCP server details required and click **Save**. This will have the changes effected on the DHCP server immediately. Within just a few clicks, you can make IP address reservations on your DHCP server.



Editing IP Address Status on DHCP Server from SolarWinds IPAM console

The reverse is also possible with SolarWinds' [IPAM solution](#). Once you've made the changes on your DHCP Server you can open the **DHCP & DNS Management** tab >> **DHCP Servers**>> click **Scan**. SolarWinds IPAM will scan the DHCP server for changes and update the Orion server immediately.

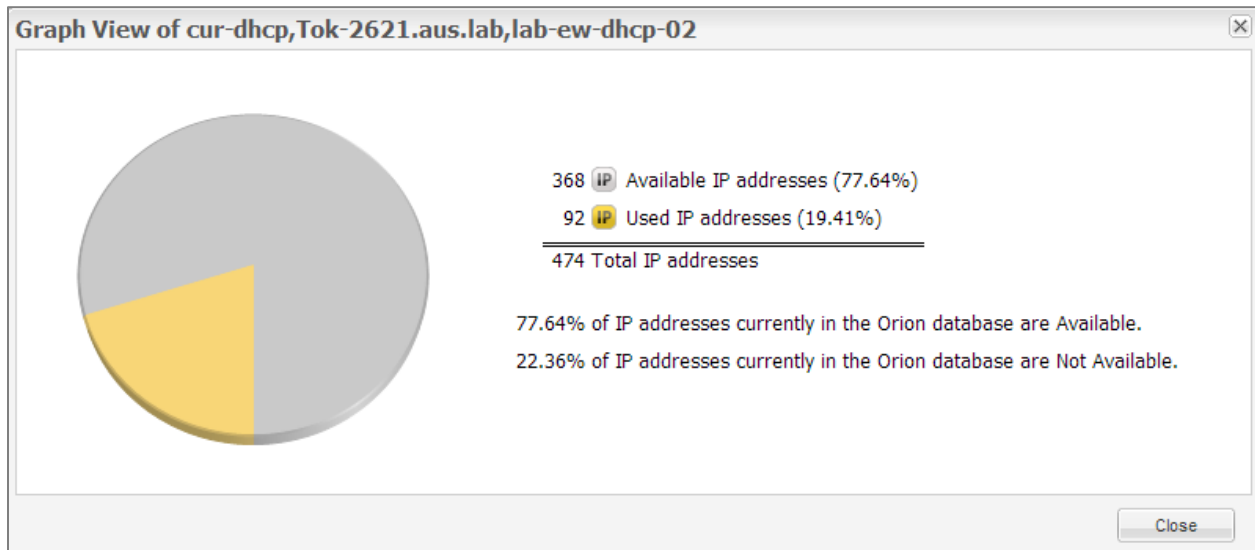


Synchronizing DHCP Server Updates on SolarWinds IPAM

#4 DHCP Graph View

The Graph View presents a graphical representation of the IP address utilization percentage for a single or a group of DHCP Servers.

Click on the **IP Address** tab >> **DHCP & DNS Monitoring** >> **DHCP Servers** >> **Graph View** to get these statistics.

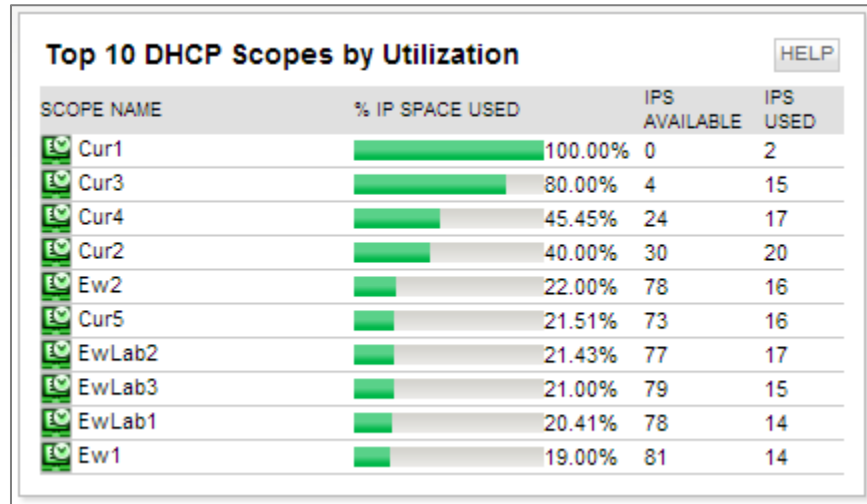


Graph showing Percentage IP Utilization for the selected DHCP Server(s)

#5 Customizable Alerts & Intuitive Dashboard

SolarWinds IP Address Manager is an effective [IP scanner tool](#) that offers many customizable alerts that you can configure to alert you when DHCP scopes begin to reach their limit, or when they reach a certain percentage of utilization, so you can better manage and allocate your IP addresses.

You can also leverage the intuitive dashboard and the Top 10 Views from SolarWinds IPAM to quickly view DHCP scopes, IP address utilization, and availability.



SCOPE NAME	% IP SPACE USED	IPS AVAILABLE	IPS USED
Cur1	100.00%	0	2
Cur3	80.00%	4	15
Cur4	45.45%	24	17
Cur2	40.00%	30	20
Ew2	22.00%	78	16
Cur5	21.51%	73	16
EwLab2	21.43%	77	17
EwLab3	21.00%	79	15
EwLab1	20.41%	78	14
Ew1	19.00%	81	14

SolarWinds IPAM View of Top 10 DHCP Scopes by Utilization

SolarWinds IP Address Manager helps you with [centralized DHCP management](#) of all your Microsoft DHCP servers and comprehensive monitoring of your Cisco DHCP servers.

ISC DHCP with SolarWinds IPAM

SolarWinds IPAM solution also provides support for ISC (Internet Systems Consortium) DHCP. It simplifies the creation and addition of ISC subnets to a few clicks. This means you'll no longer need to log on to CLI every time you need to make a change. Click here to learn more about [ISC DHCP- Quick Install with IPAM](#).

Why SolarWinds IP Address Manager?

Eliminate Complexity, Improve Reliability, Save Time, and Money!

- Manage & monitor Microsoft DHCP/DNS, ISC DHCP/DNS, and Cisco DHCP servers

- Automatic subnet discovery and IP address scanning for the most accurate real-time discovery and verification
- Easily search an address for history, op status, MAC, device type, DHCP, DNS properties, and more
- Optional UDT integration shows where an end-point device is connected to the network and who is using the device
- Delegate tasks to network and system administrators based on role
- Supports IPv4 and IPv6 networks
- Alert notifications help prevent your subnets & DHCP scopes from filling up
- Automatically discovers used & unused addresses and typically deploys in less than an hour

The screenshot displays the SolarWinds IP Address Manager interface with several key sections:

- Getting Started with IP Address Manager:** Includes options to 'Add Subnets & IP Addresses', 'Add DHCP Server', and 'Add DNS Server'.
- Top 10 Subnets with Transient Addresses:** A table showing subnet names, IP space usage, and IP counts.
- IPAM Reports:** Overview of IPAM statistics and events.
- Top 10 Subnets by % IP Address Used:** A bar chart showing usage percentages for various subnets.
- Top 10 DHCP Scopes by Utilization with Split Scopes:** A table showing DHCP scope utilization.
- Top 10 DHCP Scopes by Utilization:** Another table showing DHCP scope utilization.
- VoIP Subnets by % IP Address Used:** A small table showing VoIP subnet usage.
- Last 25 IPAM Events:** A log of recent IPAM activities.
- DNS Records Mismatch:** A table identifying discrepancies in DNS records.

TEST DRIVE DEMO »

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Fully Functional for 30 Days

SolarWinds IP Address Manager

SolarWinds (NYSE: SWI) provides powerful and affordable IT management software to customers worldwide - from Fortune 500 enterprises to small businesses. The company works to put its users first and remove the obstacles that have become “status quo” in traditional enterprise software. SolarWinds products are downloadable, easy to use and maintain, and provide the power, scale, and flexibility needed to address users’ management priorities. SolarWinds online user community, <http://thwack.com>, is a gathering-place where tens of thousands of IT pros solve problems, share technology, and participate in product development for all of the company’s products. Learn more today at <http://solarwinds.com>.



For additional information, please contact SolarWinds at 866.530.8100 or e-mail sales@solarwinds.com.

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