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

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Unexpected Simplicity

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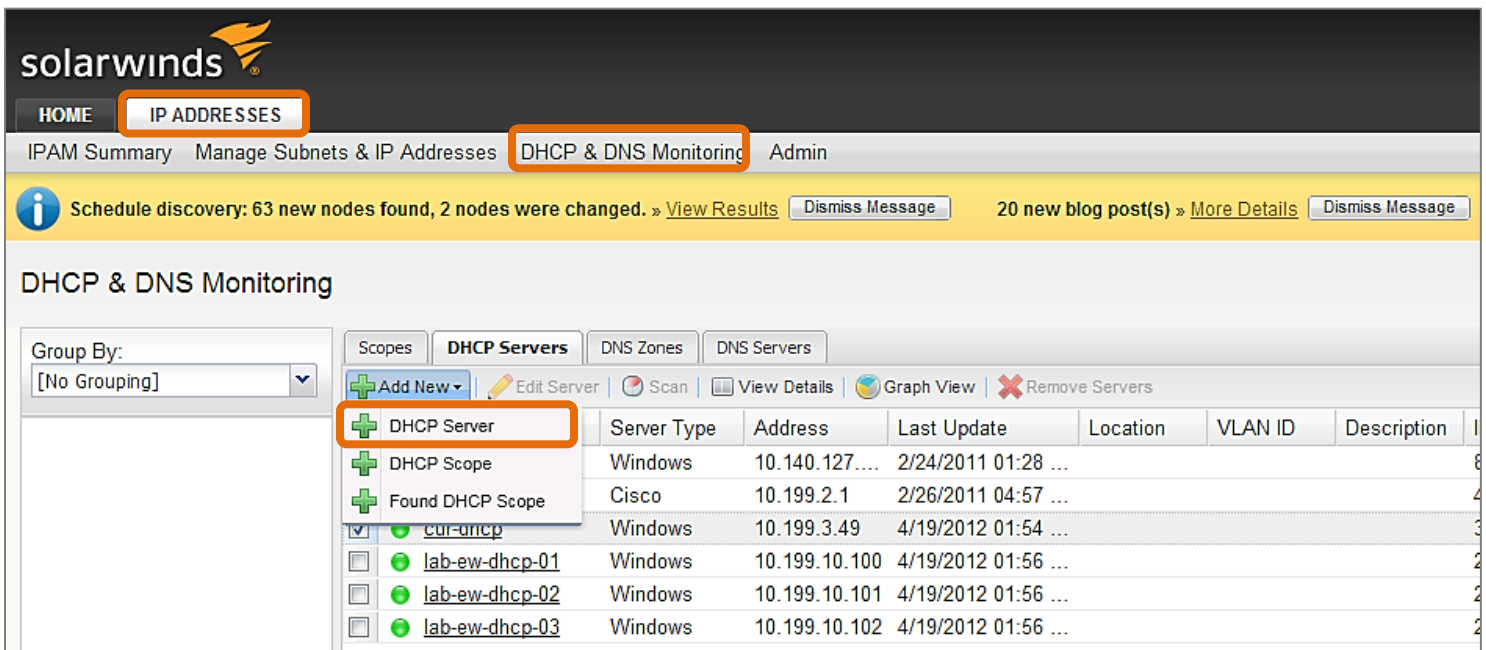
SolarWinds IPAM solution allows you to manage both Microsoft DHCP servers and monitor Cisco® IOS DHCP servers.

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**

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.

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**.

Editing DHCP Server in SolarWinds IPAM (Step 1)

This will open the DCHP 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

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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.

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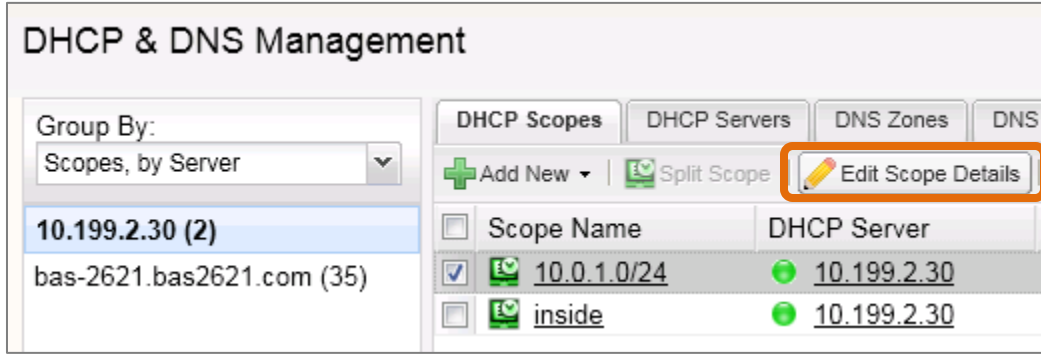
Editing Scopes in SolarWinds IPAM

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.
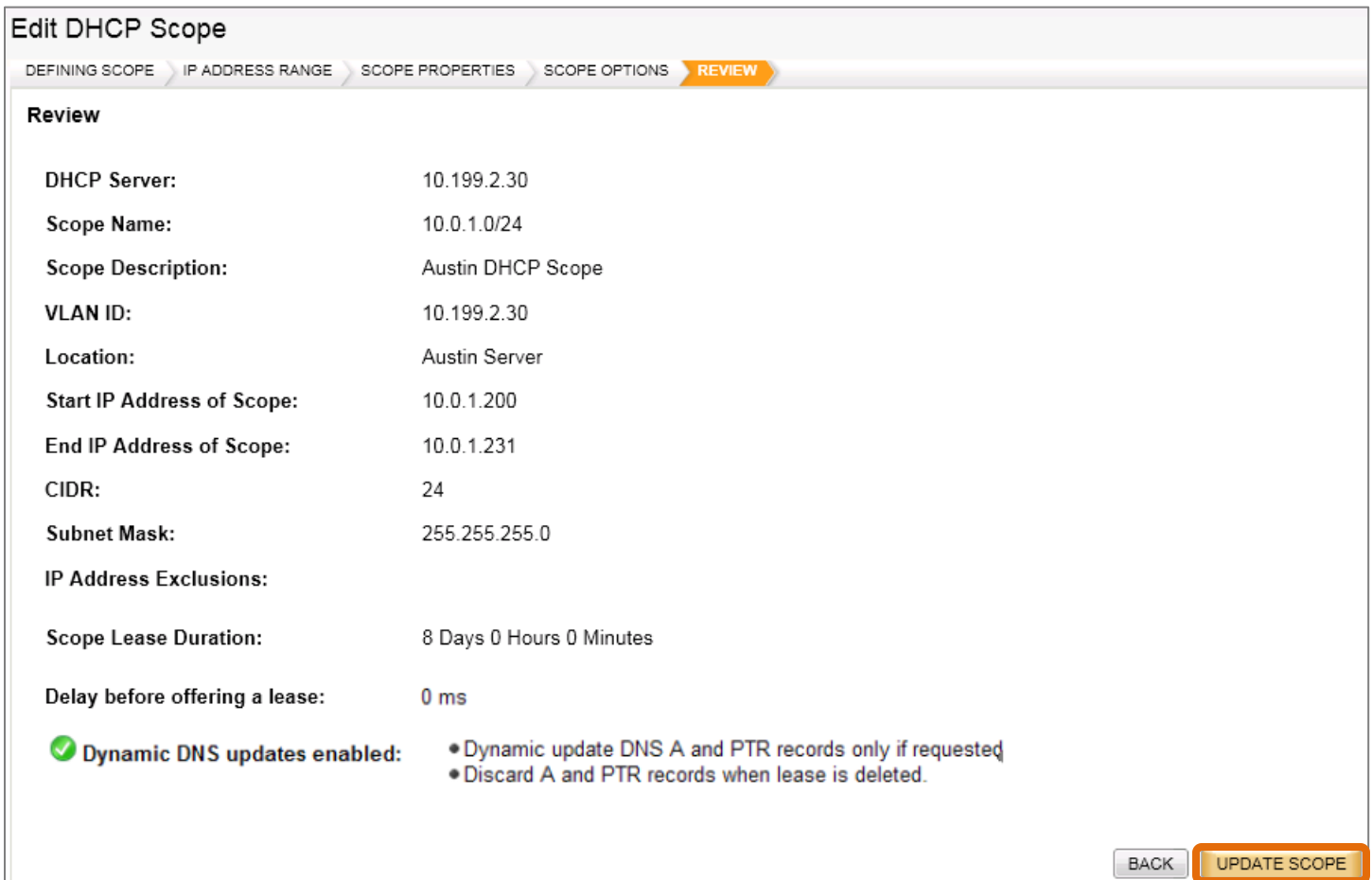
Updating DHCP Scope Details in Microsoft DHCP Server from SolarWinds IPAM

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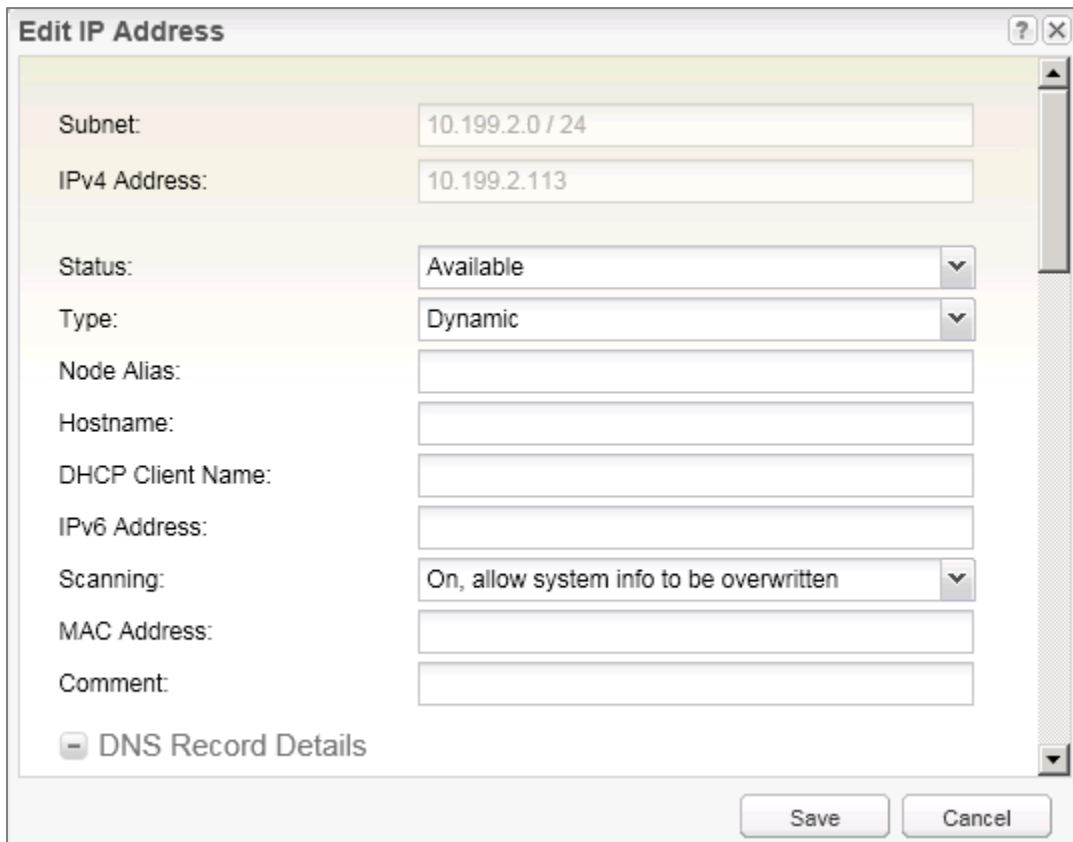
- A network with many mobile devices should have a shorter duration
- A network with computers at fixed locations may have a longer duration

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.
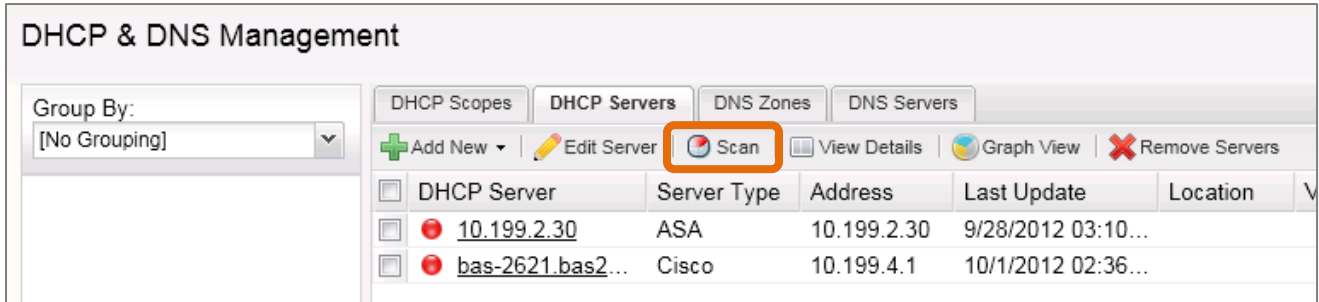
Synchronizing DHCP Server Updates on SolarWinds IPAM

#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.

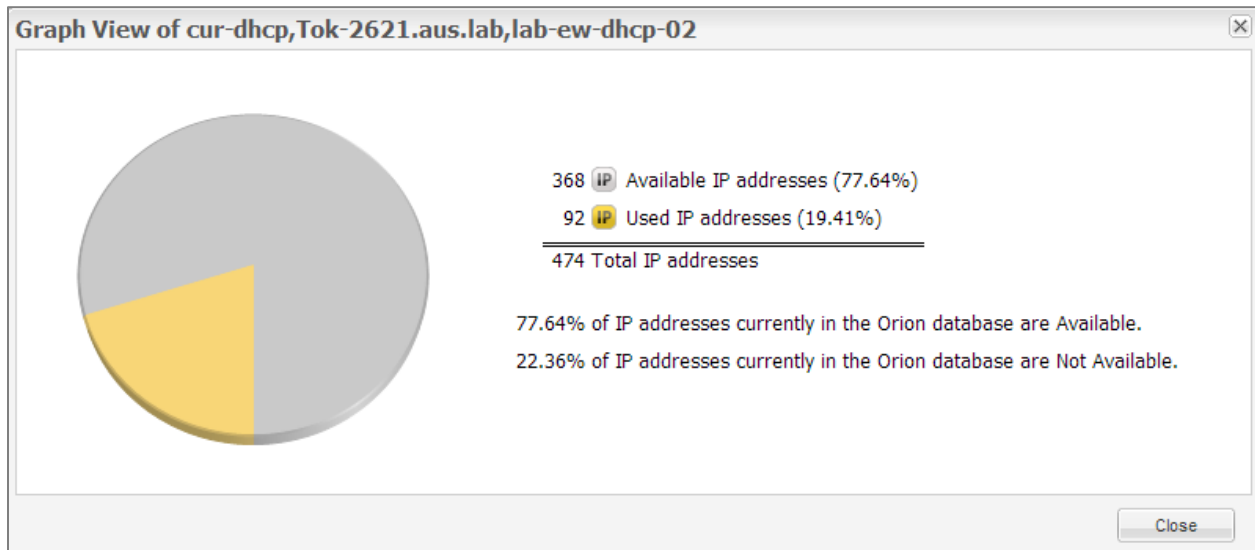Click on the **IP Address** tab >> **DHCP & DNS Monitoring** >> **DHCP Servers >> Graph View** to get these statistics.
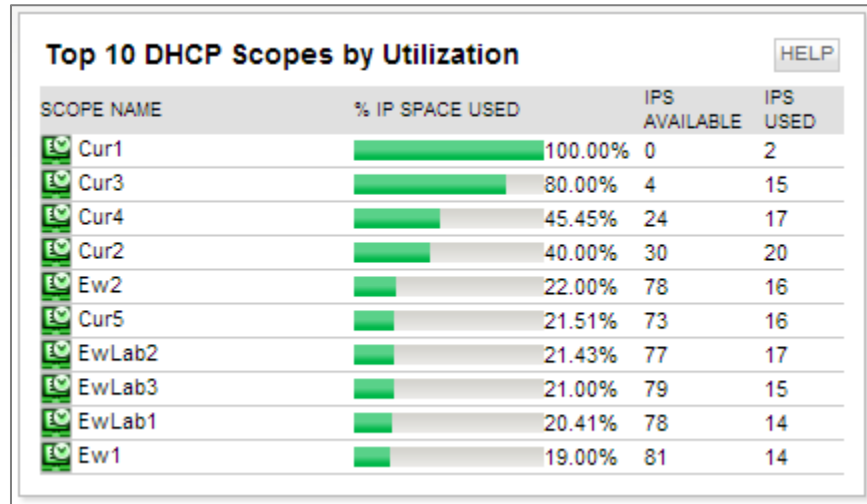

Graph showing Percentage IP Utilization for the selected DHCP Server(s)

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#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.

Top 10 DHCP Scopes by Utilization			HELP
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

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- 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

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.

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

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