

How to Set Up Automatic Subnet Scan Using SolarWinds® IP Address Manager

How to Set Up Automatic Subnet Scan Using SolarWinds IPAM?

[SolarWinds IP Address Manager](#) (IPAM) allows you to perform scheduled automated IP address scans on all your subnets. SolarWinds IPAM makes it easy to create your own scan job from scratch. Each job performs a scan of network devices based on subnet. You can automate IP address scanning for all your subnets, a group of subnets, or for an individual subnet.

There are three scanning modes used to scan IP addresses:

- ICMP scan (ping sweep)
- SNMP scan
- Neighbor scan (using ARP tables)

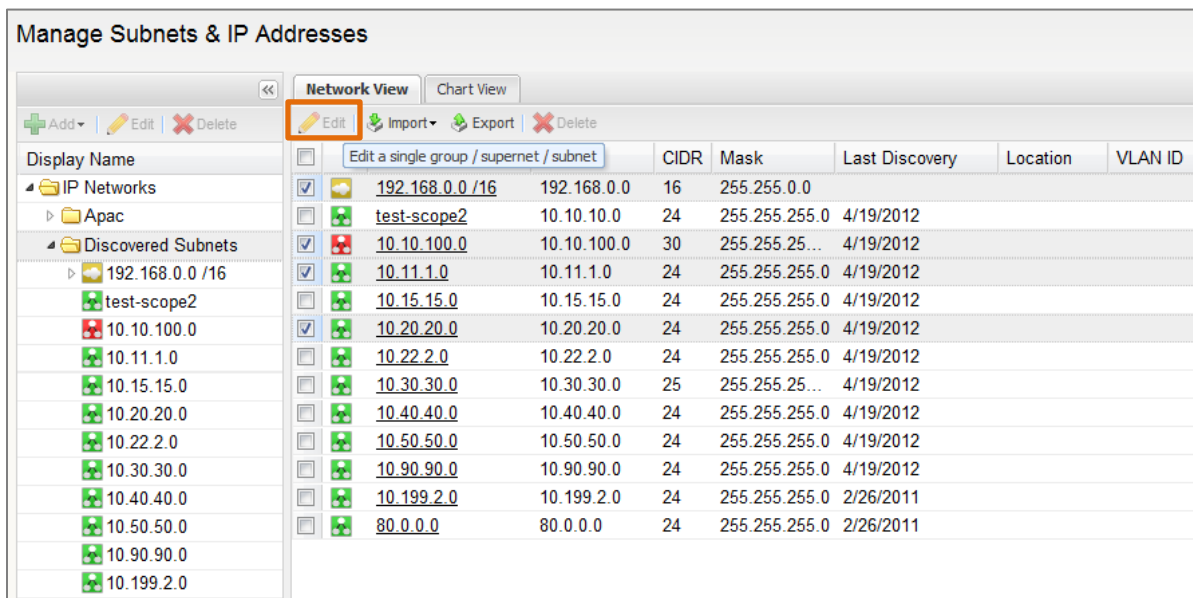
SolarWinds IPAM allows you to periodically scan a subnet. You have the flexibility to set it to scan as frequently as every 10 minutes or up to every 7 days based on your requirements. You can use this document as a quick reference guide for understanding how to set up and manage subnet scans with SolarWinds IPAM.

Configuring Automatic Subnet Scanning

SolarWinds IPAM is capable of using both **SNMP** and **ICMP** scanning to continuously determine the status of your monitored network. The Subnet Scan Settings view allows you to select how IPAM automatically scans your network for changes.

You can configure the scan while adding a new subnet or by editing the properties for any existing subnet.

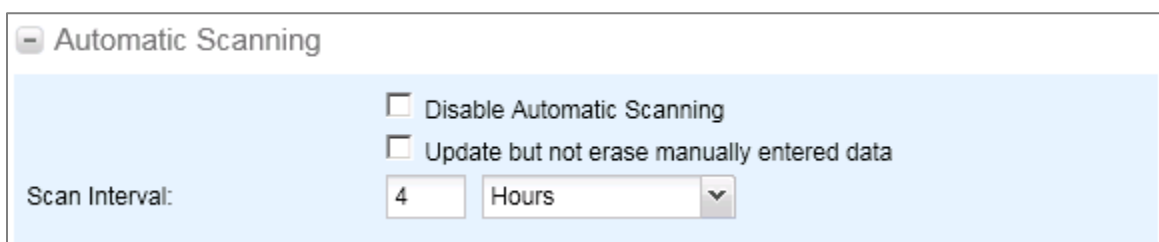
- On the **Manage Subnets & IP Addresses** screen, select the subnet(s) that you want to automate the scan for.
- On the right pane, click **Edit** to open the **Edit Subnet Properties** window.



Display Name	Edit	Import	Export	Delete	CIDR	Mask	Last Discovery	Location	VLAN ID
192.168.0.0 /16	<input checked="" type="checkbox"/>				192.168.0.0	16	255.255.0.0		
test-scope2	<input checked="" type="checkbox"/>				10.10.10.0	24	255.255.255.0	4/19/2012	
10.10.100.0	<input checked="" type="checkbox"/>				10.10.100.0	30	255.255.25...	4/19/2012	
10.11.1.0	<input checked="" type="checkbox"/>				10.11.1.0	24	255.255.255.0	4/19/2012	
10.15.15.0	<input checked="" type="checkbox"/>				10.15.15.0	24	255.255.255.0	4/19/2012	
10.20.20.0	<input checked="" type="checkbox"/>				10.20.20.0	24	255.255.255.0	4/19/2012	
10.22.2.0	<input checked="" type="checkbox"/>				10.22.2.0	24	255.255.255.0	4/19/2012	
10.30.30.0	<input checked="" type="checkbox"/>				10.30.30.0	25	255.255.25...	4/19/2012	
10.40.40.0	<input checked="" type="checkbox"/>				10.40.40.0	24	255.255.255.0	4/19/2012	
10.50.50.0	<input checked="" type="checkbox"/>				10.50.50.0	24	255.255.255.0	4/19/2012	
10.90.90.0	<input checked="" type="checkbox"/>				10.90.90.0	24	255.255.255.0	4/19/2012	
10.199.2.0	<input checked="" type="checkbox"/>				10.199.2.0	24	255.255.255.0	2/26/2011	
80.0.0.0	<input checked="" type="checkbox"/>				80.0.0.0	24	255.255.255.0	2/26/2011	

Subnet & IP address management screen in SolarWinds IPAM

You can enter the **Scan Interval** field to set the automated scan period (in minutes, hours, or days) between 10 minutes and 7 days.

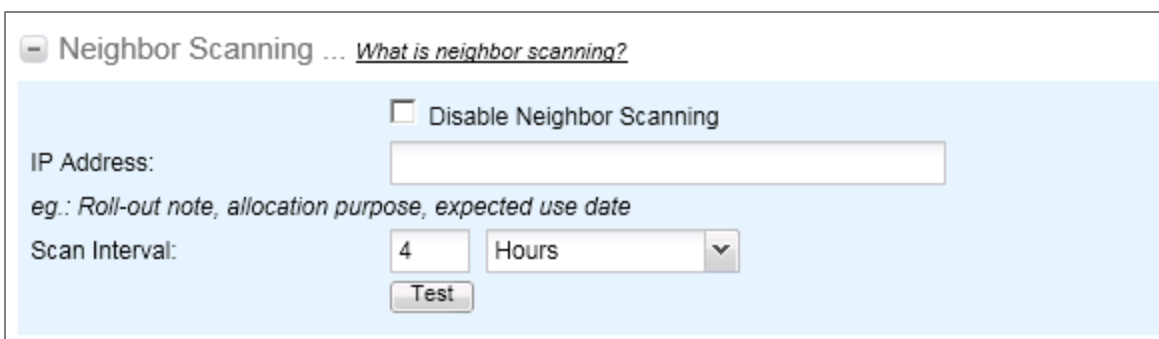


Automatic subnet scanning in SolarWinds IPAM

Configuring Neighbor Scanning

Neighbor Scanning attempts to retrieve the status of a device that may not be responding to ICMP. It scans the ARP table of a neighbor router to determine which IP addresses are active.

The Neighbor Scanning feature is disabled by default. When you un-check it, additional options appear where you can add the **IP Address** of the neighbor device and select a **Scan Interval**.



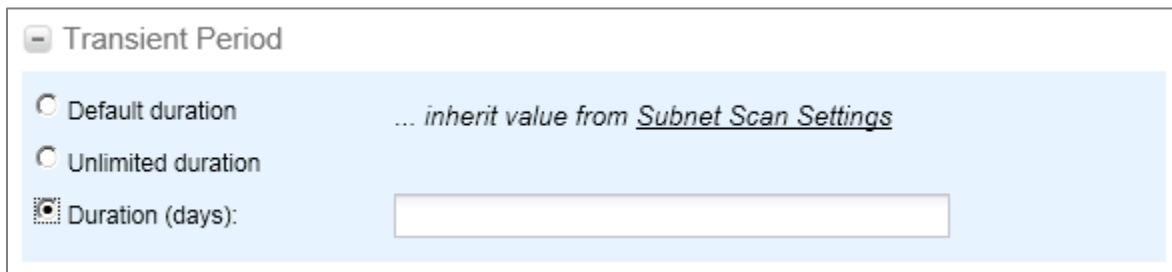
Neighbor Scanning in SolarWinds IPAM

Managing Subnet Scan Settings

Scheduled IP address scanning also helps avoid IP address conflicts by recognizing transient IP statuses. For example, if a static IP address goes offline during a maintenance update and is not reachable, SolarWinds IPAM configures that IP address as “transient” to prevent other network engineers from assigning it. You can configure the transient period for any number of consecutive days up to one year. During a subsequent scan, if the network device appears online again, IPAM shows its associated status as “used.”

SolarWinds IPAM continuously scans all managed IP addresses on your network. If a device fails to respond to any SNMP or ICMP requests during the period of time designated as the **Transient Period**, IPAM changes the status of the unresponsive IP address from “used” to “available.”

You can provide an appropriate value for the Transient Period (which must be a value from .2 to 340 days) in the **Duration (days)** field.



Transient Period

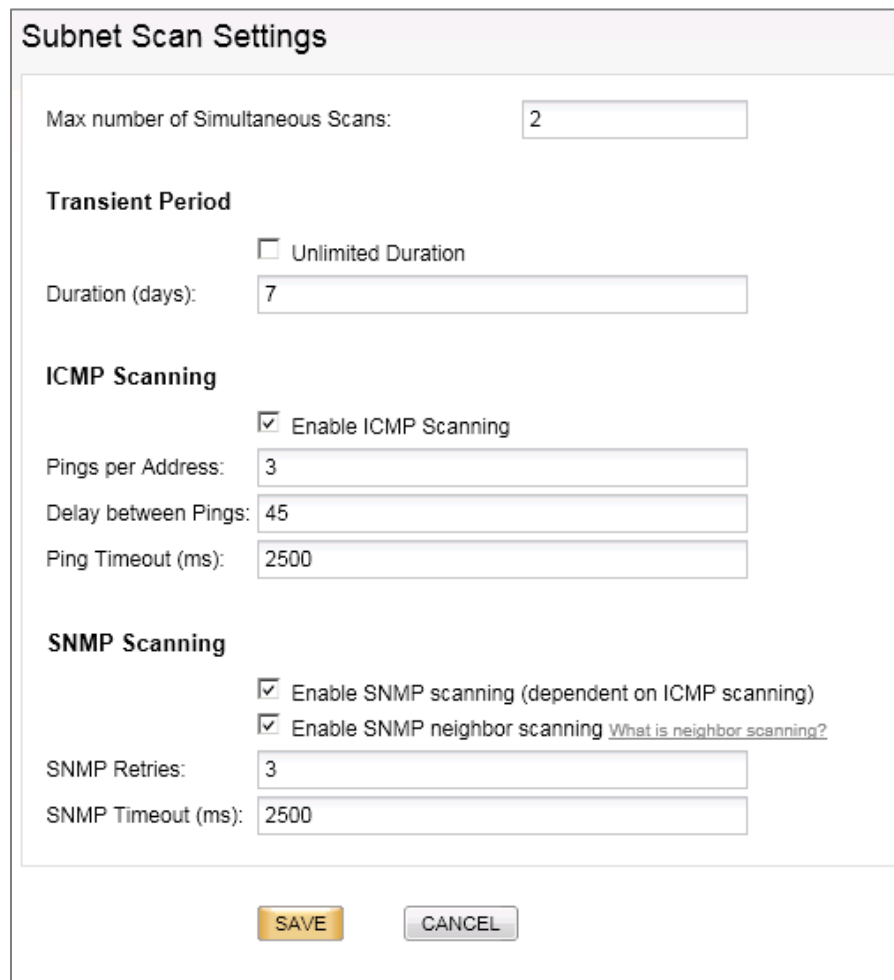
☐ Default duration ... inherit value from Subnet Scan Settings

☐ Unlimited duration

☒ Duration (days):

Transient Period settings in SolarWinds IPAM

If you want to customize the Transient Period settings further, select **Inherit Values from Subnet Scan Settings**. This opens a new browser with advanced **Subnet Scan Settings** where you can specify ICMP and SNMP scanning thresholds.



Subnet Scan Settings

Max number of Simultaneous Scans:

Transient Period

☐ Unlimited Duration

Duration (days):

ICMP Scanning

☒ Enable ICMP Scanning

Pings per Address:

Delay between Pings:

Ping Timeout (ms):

SNMP Scanning

☒ Enable SNMP scanning (dependent on ICMP scanning)

☒ Enable SNMP neighbor scanning [What is neighbor scanning?](#)

SNMP Retries:

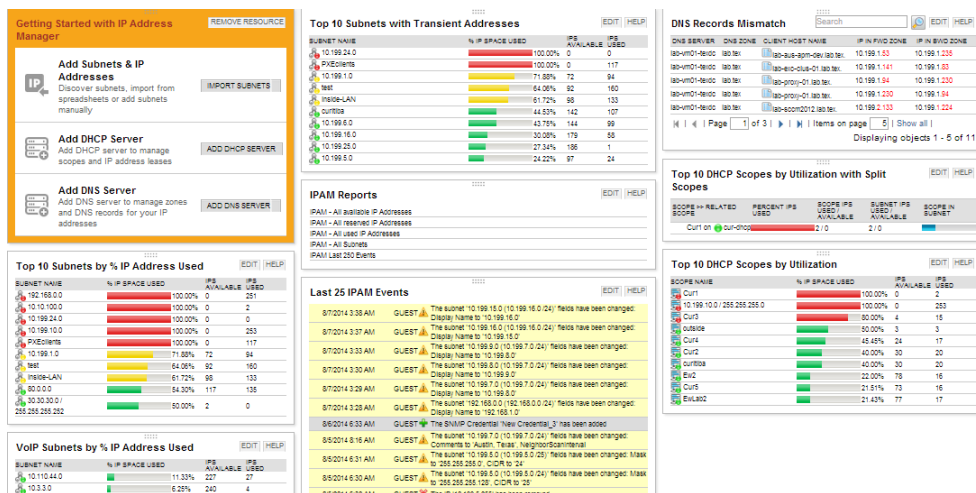
SNMP Timeout (ms):

Subnet Scan Settings in SolarWinds IPAM

Why SolarWinds IP Address Manager?

Eliminate Complexity, Improve Reliability, Save Time & 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 addresses 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 engineers and system administrators based on role.
- Supports IPv4 and IPv6 networks.
- Alert notifications help prevent your subnets and DHCP scopes from filling up.
- Automatically discovers used and unused addresses.
- Typically deploys in less than an hour.



The screenshot displays the SolarWinds IP Address Manager interface, which includes several key sections:

- Getting Started with IP Address Manager:** A sidebar with 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 available IP addresses.
- IPAM Reports:** A section for generating reports on IP addresses, including subnets, reserved IP addresses, and used IP addresses.
- Last 25 IPAM Events:** A log of recent IP address management events, such as subnet changes and DHCP lease events.
- DNS Records Mismatch:** A table identifying discrepancies between DNS records and IP address data.
- Top 10 DHCP Scopes by Utilization with Split Scopes:** A table showing the utilization of DHCP scopes, including split scopes.
- Top 10 DHCP Scopes by Utilization:** A table showing the utilization of DHCP scopes, including standard scopes.
- VoIP Subnets by % IP Address Used:** A table showing the utilization of IP addresses for VoIP subnets.

 **DOWNLOAD FREE TRIAL**

Fully Functional for 30 Days

 **TEST DRIVE DEMO »**

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, [thwack](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.

Share:   

solarwinds
Unexpected Simplicity™

To locate an international reseller near you, visit
http://www.solarwinds.com/partners/reseller_locator.aspx