

Auto Discovery for Servers and Network Devices

With Auto Discovery, up.time can detect systems on your network that have an IP address within a specified range, as well as other search criteria:

- the `ping` utility is used to determine whether systems are available on the network
- an Agent check is performed to determine which systems have the up.time Agent installed on them
- a WMI check is used to determine whether Windows-based systems are using WMI to gather performance metrics
- SNMP-based network devices are detected
- an SNMP probe is done to find any systems that are using Net-SNMP

Systems that are repeatedly discovered with different checks (e.g., both an up.time Agent and WMI implementation are detected on the same system) will by default be assigned a type based on the first check that resulted in its discovery. The auto-discovery order is as follows: agent check, WMI check, network device discovery, net-SNMP probe.

Once a list of systems in the range of IP addresses that you specified is generated, you can selectively add them to up.time.

Using Auto Discovery

To use Auto Discovery for systems and network devices, do the following:

1. In the **My Infrastructure** panel, click **Auto Discovery**.
The **Auto Discovery** window appears.
2. Ensure Auto Discovery is set for **Servers and Network Devices**, then click **Next**.
3. Select one or more types of network entities to include in the auto-discovery process:
 - Servers with up.time Agent
 - Servers with Windows Management Instrumentation (WMI)
 - Servers with Net-SNMP v2 or v3
 - Network devices with SNMPWith each selection, additional configuration options appear.
4. Optionally provide up.time Agent connection information to allow the Monitoring Station to detect systems that have the Agent installed on them. Select the **Use up.time Agent Global Configuration** check box if this information has been configured (see [Configuring Global Data Collection Methods](#) for more information); otherwise complete the following options:
 - Port
The port through which the up.time Agents communicate with the up.time Monitoring Station.
 - Use SSL
Select this check box if the Agent securely communicates with the Monitoring Station using SSL.
5. Optionally provide login information for an administrative Windows account if you would like Auto Discovery to scan for systems that are using WMI to collect metrics. Select the **Use WMI Global Configuration** check box if this information has been configured (see [Configuring Global Data Collection Methods](#)); otherwise complete the following options:
 - Windows Domain (optional)
The Windows domain in which WMI has been implemented.
 - User Name
The name of the account with access to WMI on the Windows domain.
 - Password
The password for the account with access to WMI on the windows domain.



This option is only available on Monitoring Stations running on the Windows platform.

6. Optionally provide SNMP connection information to allow Auto Discovery to scan for servers with Net-SNMP. Select the **Use Global SNMP Connection Configuration** check box if this information has been configured (see [Global SNMP Configuration Settings](#) for more information); otherwise select the **SNMP Version** that your servers are using, then complete the appropriate options:
 - SNMP Port
The port on which the Net-SNMP instance is listening.
 - Read Community
A string that acts like a user ID or password, giving you access to the Net-SNMP instance. Common read communities are public (enables you to retrieve read-only information from the device) and private (enables you to access all information on the device).
 - Username
The name that is required to connect to the Net-SNMP instance.
 - Authentication Password
The password that is required to connect to the Net-SNMP instance.
 - Authentication Method (optional)
From the list, select one of the following options, which will determine how encrypted information travelling between the Net-SNMP instance and up.time will be authenticated:
 - MD5:** A widely-used method for creating digital signatures used to authenticate and verify the integrity of data.
 - SHA:** A secure method of creating digital signatures. SHA is considered the successor of MD5 and is widely used with network and Internet data transfer protocols.
 - Privacy Password
The password that will be used to encrypt information travelling between the Net-SNMP instance and up.time.
 - Privacy Type (optional)
From the list, select one of the following options, that determine how information travelling between the Net-SNMP instance and up.time will be encrypted:
 - DES:** An older method used to encrypt information.
 - AES:** The successor to DES, which is used with a variety of software that require encryption including SSL servers.



You can set both the authentication method and password types, only one of them, or neither.

7. Optionally provide SNMP connection information to allow Auto Discovery to scan for SNMP-based network devices. Select the **Use Global Connection Configuration** check box if this information has been configured (see [Global SNMP Configuration Settings](#)); otherwise complete the configuration options as described in the previous step.
8. For the Auto Discovery scan, in the **Subnet** field, indicate which IP address ranges to scan, using one of the following formats:
 - a single IP address (e.g., 10.1.52.1)
 - a single subnet (e.g., 10.1.52)
 - an IP address range (e.g., 10.1.52-100)
 - multiple, comma-separated subnet entries (e.g., 10.1.1, 10.1.4, 10.1.52)
 - multiple subnets and an IP address range (e.g., 10.1.1, 10.1.4, 10.1.52-100.)
9. Select the **Element Group** in which these additions will be placed.
10. Click **Next** to begin the auto-discovery process.
A list of the systems that match all your defined criteria is generated. The time required for the list to populate is dependent on the breadth of your search criteria.
11. When the auto-discovery list has been completed, select the corresponding check boxes for all the network entities you wish to add to up.time as monitored Elements.
12. Click **Next** to begin adding your selections.
As your selections are added to up.time as Elements, the progress of their addition is displayed.



If this process is not fully completed, none of the queued network entities become up.time Elements.

13. Click **Done**.
All of the new Elements will appear in the selected Element group under **My Infrastructure**.