

Using the Cisco OnPlus Scanner to Discover Your Network

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This Application Note explains how to use the Cisco OnPlus Scanner with the Cisco OnPlus Portal to discover and manage your network. It also provides instructions that show you how to view your network in inventory list format and topology format. You will be able to view lifecycle information about the devices in your network as well as schedule reports that provide contract and warranty, hardware and software end-of-life, and product security advisories and field notices.

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Cisco OnPlus Scanner Overview

The OnPlus Scanner is available to every Cisco OnPlus Customer. It provides network administrators with an efficient way to manage their network by creating an inventory of Cisco devices and providing important information about the various devices that it discovers.

- Create inventory automatically
- Access lifecycle information about Cisco network devices
- Customize the portal display
- Customize sorting and grouping of data
- Format and schedule reports

Operating System and Browser Recommendations

The OnPlus Scanner is an easy-to-use application that lets you quickly discover devices in your network. Up to 256 devices can be discovered in a single scan, giving you an opportunity to add new devices found in your network to your OnPlus inventory list. Once the devices are in the OnPlus inventory list, you can obtain important lifecycle information including: end-of-life hardware and recommended replacement products, end-of-life software, service contract status, warranty status, product security alerts, and field notices.

Supported Browsers and Operating Systems

The Cisco OnPlus Scanner supports the following operating systems and the current and two prior versions of the following browsers:

	Window XP	Windows 7	MAC	Linux Redhat and Ubuntu
Google Chrome	Supported	Supported	Supported	Not tested
Firefox	Supported	Supported	Supported	Supported

	Window XP	Windows 7	MAC	Linux Redhat and Ubuntu
Internet Explorer	Supported	Supported	Not tested	Not tested
Safari	Not tested	Not tested	Supported	Not tested

NOTE We do not recommend using Internet Explorer 6, Internet Explorer 7, and Firefox 3.6 or earlier.

JRE Compatibility

If a 32- or 64-bit operating system running a 32-bit browser is not running the minimum required JRE, the OnPlus Scanner provides a redirection link to download and installs the recommended version.

For a 32-bit browser, you must install 32 bit JRE, and for a 64-bit browser you must install 64-bit JRE. When you manually uninstall JRE, the Java deployment plugin should also be uninstalled. Taking this action will ensure that OnPlus scanner points to the JRE redirection link to allow the download for the installation of the recommended version.

By default, the next-generation Java plug-in is not enabled in Safari on the Mac OS. You must enable the next-generation Java plug-in manually to ensure that the scanner works properly. JRE versions earlier than 1.6 are not recommended

If a 64-bit operating system running a 64-bit browser is not running the minimum required JRE, the OnPlus Scanner will provide instructions to install the recommended version manually.

Google Chrome is not supported on systems running a 64-bit JRE. There is currently no 64-bit version of Google Chrome.

Using the Cisco OnPlus Scanner Dashboard

The Dashboard displays inventory data and provides access to information about the Cisco devices in your network. You can create customized reports that will automatically provide updated information about your network. To take advantage of the features that are part of the OnPlus Scanner Dashboard, read the following information:

- [User Account and Support Tools, page 4](#)

- [Using Dashboard Navigation, page 5](#)
- [Using Dashboard Tools, page 6](#)

User Account and Support Tools

You can set up your account information, find detailed information about Cisco OnPlus Service, and access the OnPlus Support community by using the OnPlus Support Tools found in the upper-right portion of each page. The toolbar contains the following options. The **Account** option appears red, as shown in the illustration, when account information is incomplete. To complete the Account information follow these step:

Welcome, David Wilkens  [Account](#) [Support](#) [Documentation](#) [Log Out](#)

STEP 1 Click **Account** to access the My Account page.

STEP 2 Choose **Account Type** from the drop-down list if you are changing your account type.

Note: Account Type is only changed when an OnPlus Scanner Customer chooses to become a Cisco Registered Partner.

STEP 3 Fill in your **Identity Information**.

- **First and Last Names**
- **Company** affiliation
- Choose **Job Role** and **Job Level** (from the drop-down lists)
- Choose **Timezone** information that most closely matches your location (from the drop-down list)

STEP 4 Fill in **Contact Information**.

STEP 5 Find and apply your company logo using the **Browse** feature on **Global Preferences**.

STEP 6 Click **Save**.

Once the account information is complete, the **Account** option will change to black text.

The other support options:

- **Support** — Link to the Support pages where you can join discussions and find information about the Cisco OnPlus Portal.
- **Dogmatization** — Open online help files or download the *Cisco OnPlus Portal User Guide*.
- **Log Out** — Exit the Cisco OnPlus Portal.

Using Dashboard Navigation



Option	Description
Dashboard	Provides a summary view of the information discovered on the network.
ON100	Provides links to information about ON100 functionality, and obtaining and activating an ON100. See Migrating from Cisco OnPlus Scanner to Cisco OnPlus ON100, page 17 .
End of Life	Shows hardware and software end-of-life information, as well as information about replacement devices. You can set periodic reminders.
Advisories	Provides product security advisories and field notices.
Warranties	Shows specific start and end dates for warranty support by device. You can set periodic reminders.
Contracts	Lists Cisco devices that are under service contracts. You can set periodic reminders.

Reports	Provides available Lifecycle Digest reports or allows you to create new ones. To create a Lifecycle Digest report, see Creating a Lifecycle Digest Report, page 16 .
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Using Dashboard Tools

The Dashboard Tools offer an easy way to help you perform OnPlus functions.

Tool	Device Listing View	Topology View
Legend	Identify the symbols used on the Dashboard page.	Identify the symbols used on the Dashboard page.
Customize	Choose which columns appear on the device listing and how many records display per page.	Choose which columns appear on the device listing and how many records display per page.
Scan My Network	Open the Scanner page.	Open the Scanner page.
Export to CSV	Create an MS Excel spreadsheet using the device information on your Dashboard.	Save the topology view as a PNG image, create an MS Excel spreadsheet, or save the topology as an SVG file to use with MS Visio.
Export to PDF	Create a PDF table that shows all the entries on the Dashboard page in the Device listing.	N/A
Actions 	Delete selected devices or all devices.	Delete all devices.
Settings 	Create labels for a single device or group of devices.	Adjust topology settings, add or delete device categories, and create device labels.
Filter Criteria 	Create precise searches and sorts based on any or all fields in the Dashboard view.	Create precise searches and sorts based on any or all fields in the Topology view.

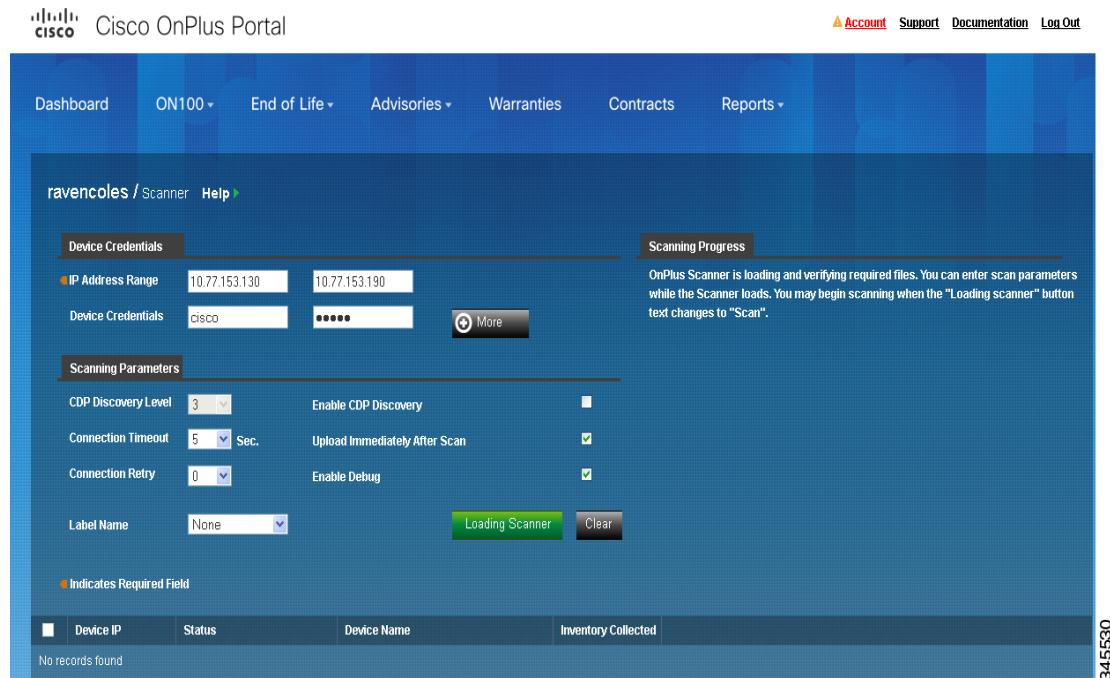
Tool	Device Listing View	Topology View
Full Screen Mode	Not available for the Device Listing view.	Provides a full screen view of the topology while disabling the ability to enter data.
Device Listing	Use the drop-down list to toggle to the Network view you choose.	Use the drop-down list to toggle to the Device Listing view or to change to another topology view.
Network Topology	Not available for the Device Listing view.	Zoom in or out, and zoom to fit to the page.
Zoom	Not available for the Device Listing view.	Zoom in or out, and zoom to fit to the page.
Info	The Info tool appears when a single device is selected. When multiple devices are selected, the info tool icon with + appears. Click the Info tool to open the Device Details window.	The Info tool does not appear in the Dashboard topology view.
Last Scanned	Informational only. Shows the number of days since the last scan occurred.	Informational only. Shows the number of days since the last scan occurred.

Using the Cisco OnPlus Scanner

After the customer has logged on to the Cisco OnPlus Portal, the Dashboard, Device Listing page displays if data has been scanned previously.

If you are logging in for the first time, the OnPlus Scanner page will open and the scanner will load. There is no saved or scanned data, therefore the Device Listing is blank.

Application Note



To scan your network using the Cisco OnPlus Scanner, follow these steps:

STEP 1 Returning users, from the Dashboard page, click the green **Scan My Network** button.

Note: First-time user skip Step 1.

The Scanner page will display. As the scanner loads, an informational message will be displayed instructing the user to input parameters while the scanner is loading.

STEP 2 Enter the **IP Address Range** for your network.

Enter a single IP address (IPV4 address) for a single device search or when you are using CDP (Cisco Discovery Protocol) to discover devices in your network.

Enter an IP address range that includes all devices in your search by using the two entry fields.

Subnet masking can be performed by entering the IP Address in the first text box followed by index or subnet mask. For example, use a format similar to this 10.77.153.182/24 or 10.77.153.182/255.255.255.198.

Note: While on the OnPlus Scanner page, you can use the **Help** button at any time to get help with using OnPlus Scanner features.

STEP 3 Enter **Device Credentials**. Device Credentials can be Telnet, HTTP, HTTPS, or SSH.

- a. Click **More** to add more credentials.
- b. Enter one or two additional credentials.

Repeat the scan process as many times as needed to discover devices in your network that have different credentials.

Note: Device Credentials will be stored locally for successfully discovered devices. There is no need to re-enter credentials for devices that have been discovered in a previous scan.

STEP 4 Enter the scanning parameters that apply to your search. Please include the details about the credentials that will be stored locally in user system.

STEP 5

CDP Discovery can be used for discovering only devices in your network that are CDP enabled.

- a. **CDP Discovery Level** cannot be set until the **Enable CDP Discovery** has been enabled. Set CDP Discovery Level to discover all neighboring devices up to level 5. (Default is 3).
- b. If you are using CDP discovery, check the box next to **Enable CDP Discovery**.
- c. Set **Connection Timeout** to control the length of your scan and to perform a more thorough scan.

You can adjust the scan in increments of 5 seconds, from 5 to 120 seconds.

- d. **Upload Immediately After Scan** allows all devices that successfully scanned to be placed in your OnPlus inventory list. When left unchecked, scanned devices will not automatically transfer to the inventory list. This feature is checked by default.
- e. Set **Connection Retry** to increase the number of auto-retries for your OnPlus Scanner to attempt. The maximum number of retries is 3. (Default number of retries is 0.)
- f. **Enable Debug** provides log details when checked. This feature is checked by default.

STEP 6 Use the **Label Name** drop-down list to allow you to attach a label to the items that you are scanning. If you have not yet entered any labels, this list displays two options:

- **None** — No label will be attached to the scanned devices. (None is the default.)
- **<New>** — A New Label window will open where you can provide a label for the devices that you are about to scan. The label can be up to 20 characters including spaces. Labels are user-defined words that identify groups of devices to help manage network devices. For example, you may have devices on your network that belong to different cost centers. The labels will associate devices with their cost center.

Note: Labels can be entered and associated with devices after the scanned devices have been transferred to inventory. From the inventory list, you can create and assign labels to associate devices with groups.

STEP 7 Click **Scan**. See **Scanning Progress** to view results of your scan while it is processing.

If you click **Clear**, all the parameters you have entered will be erased.

STEP 8 Once the scan has completed with a Status of Uploaded nn/nn Successfully message, click **Finished**.

Clicking Finished closes the Scanner page and opens the Dashboard page to display the inventory list.

Note: **Cancel** can be used any time during the scan to end the scan process. When you click **Cancel**, scanning ends and all the parameters that you had set remain available. You can change any of the parameters at this time, except the IP addresses. Click **Scan** and the scanning process restarts.

Scanning Progress

During the scanning process, messages are displayed that provide information about the scanning progress and success of the scan.

- **Started** provides the date and time that your scan launched.
- **Attempted** gives an actual count of the number of devices being scanned and shows a progressive percent completed.

When the scan is nearing completion, the following message will display when there are devices discovered with a status of Auth failed or Unreachable.

The Status field changes from Uploading to Uploaded nn/nn Successfully when the scan is completed.

Preview List

On the lower portion of the screen is a Preview List that shows you all the devices that have been scanned. The information provided in this list will help you determine when a rescan is necessary. The Preview List provides the following information:

- **Device IP** shows the IP address of the discovered device.
- **Status** shows one of the following scan results: Authentication Failed, Unreachable, or Success.
- **Device Name** appears for discovered devices.
- **Inventory Collected** provides a link to the data collected from the scanned device.

Using the information from the Preview List, you will be able to determine if you need to rescan your network and which type of rescan will be required.

Rescanning Your Network

After the scan has completed, you may need to rescan your network to discover devices that were not found in the initial scanning attempt. You can adjust any of the parameters except the IP address Range in a rescan attempt.

The reasons that rescanning may be necessary are:

- Credentials may have been entered incorrectly causing an Auth Failed status.
- OnPlus may have timed-out causing an Unreachable status.
- The scan attempt failed when using unsupported parameters, for example, attempting CDP discovery when CDP is not enabled on the devices being scanned.

Rescanning for an Auth Failed Status

To rescan when you have received an Auth Failed status, follow these steps:

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- STEP 1** Change the Device Credentials to match credentials used for devices in your scan.
 - STEP 2** Choose Auth Failed from the **Rescan Based On** drop-down list.

You can adjust **Connection Timeout** and **Connection Retry** to lengthen your scan.

STEP 3 Click **Rescan**.

Rescanning for an Unreachable Status

To rescan when you have received an Unreachable status, follow these steps:

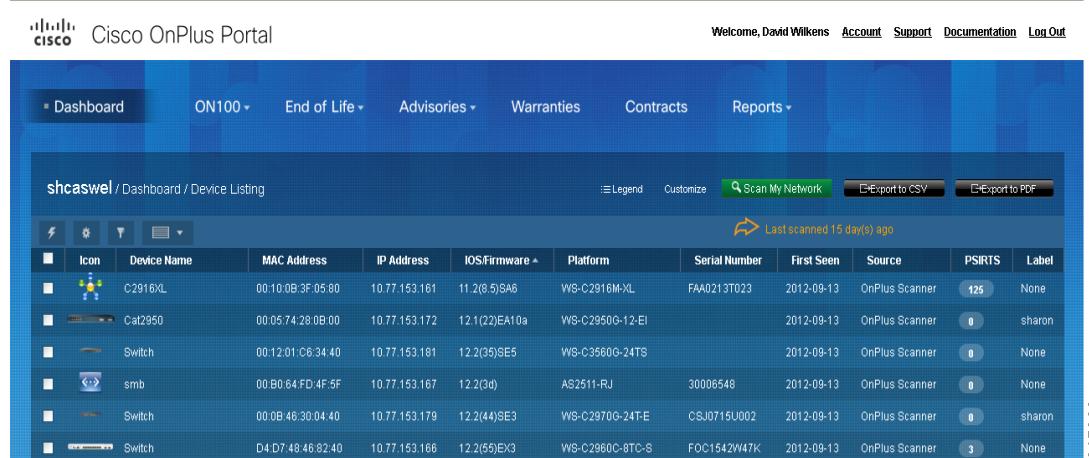
STEP 1 Increase **Connection Timeout**.

STEP 2 Choose Unreachable from the **Rescan Based On** drop-down list.

STEP 3 Click **Rescan**.

Using the Device Listing View

The Device Listing view is the default view for the Dashboard. It provides the following at-a-glance information:



The screenshot shows the Cisco OnPlus Portal interface. At the top, there's a navigation bar with links for Dashboard, ON100, End of Life, Advisories, Warranties, Contracts, Reports, and a user account. Below the navigation bar is a search bar with the placeholder "shcaswel / Dashboard / Device Listing". To the right of the search bar are buttons for "Scan My Network", "Export to CSV", and "Export to PDF". A message "Last scanned 15 days ago" is displayed. The main area is a table titled "Device Listing" with columns: Icon, Device Name, MAC Address, IP Address, IOS/Firmware, Platform, Serial Number, First Seen, Source, PSIRTS, and Label. The table contains seven rows of device data. The bottom right corner of the screenshot has the number "345306".

Field Header	Description
Icon	The Icon is the visual representation of the device.
Device Name	A descriptive name that includes the product identifier.

MAC Address	A unique network interface address.
IP Address	A unique identifier that allows the device to communicate using the internet.
IOS/Firmware	The current IOS or firmware on the device.
Platform	The product identifier.
Serial Number	A product based unique identifier.
First Seen	The date that the device was scanned and added to the inventory.
Source	The device discovery method that was used to add the device to the inventory list.
PSIRTS	The product security advisory count.
Label	A user-defined tag used to group devices to meet customer needs.

Obtaining Detailed Device Information

To obtain detailed device information about a specific device in your inventory, follow these steps:

STEP 1 Place your cursor on the device you have chosen and click to open the **Device Information** window.

The fields are informational except for the **Label Name**.

STEP 2 Click the down arrow on **Label Name** to assign a predefined label to the device.

STEP 3 Click **OK** when you are finished.

If you click **OK**, you will close the Device Details window.

STEP 4 Click **Support** to open the **Contract Details** window. From the Contract Details window, you can also choose **Warranty** or **Hardware End of Support**.

Hardware end of life only appears as options when associated data is available for the device.

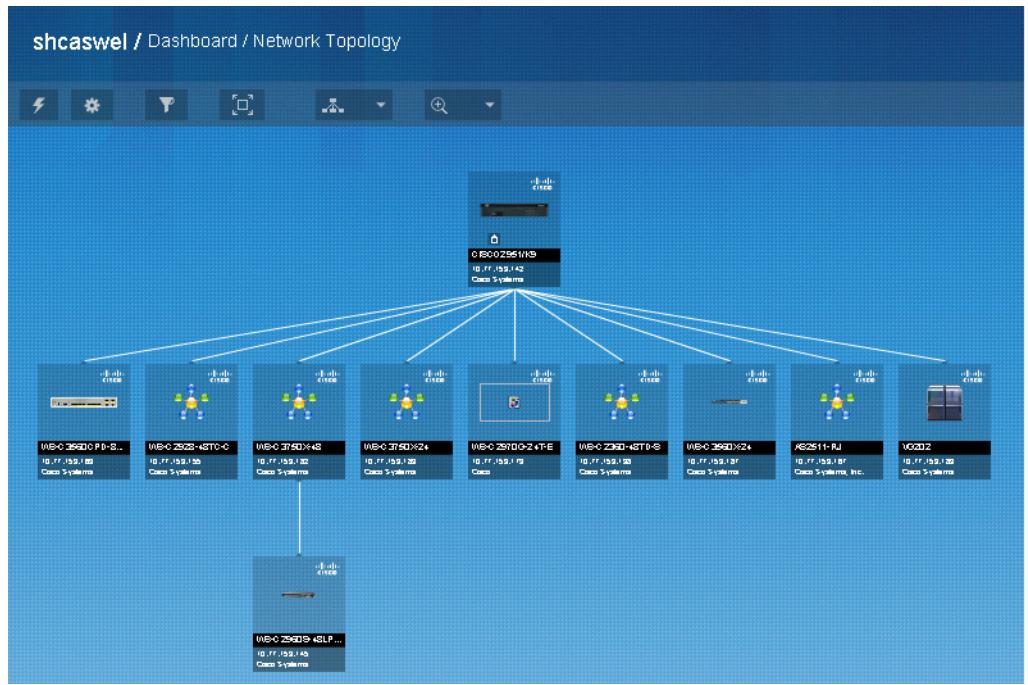
STEP 5 From the Hardware End of Support window, click the **End-of-support bulletin** URL to open the Product Bulletin for your selected device.

- STEP 6** You may close the Product Bulletin window and return to the Device Details window.
- STEP 7** From the Device Details window, click **Info** to obtain detailed information about the device you have selected. Use the scroll bar to scroll through the item list.
- STEP 8** Click **OK** to save any changes you have made.

NOTE You can easily switch to the Topology view by clicking the  Device Listing tool.

Using the Network Topology View

The Topology view shows the same devices that appear in the Device Listing view. In the Topology view, the devices display in a relational hierarchy that appears similar to the following illustration.



Device Info Window

To obtain or modify information about the device in the Topology view, follow these steps:

STEP 1 Select a device in the topology. From the menu that appears, click the  symbol. The Information window for the device will open.

There are five tabs on the Information window: Settings, Support, Info, Events, and Notes.

STEP 2 From the **Settings** tab you can perform the following functions:

- Unlock the **Device Name** to change it manually or allow it to be changed if another name for the device is discovered.
- Add or change the **Device Description**.
- Change the **Icon** by choosing another icon from the drop-down list.
- Change the **Category** by using a selection from the drop-down list.
- Apply a predefined **Label** from the selection in the drop-down list.
- From the **Actions** drop-down list, select an appropriate action.
- View MAC Address and IP Address.

STEP 3 Click **OK** to save your changes and return to the topology view.

STEP 4 From the **Support** tab, you can view **Contract Details**, **Warranty information**, **Product Security Advisories** and **Field Notices** by clicking the respective options.

Product Security Advisories and Field Notices only appear as options when associated data is available for the device.

STEP 5 Click **Hardware End of Support** to view information about the hardware end-of-support and to link to:

- End-of-support bulletin
- Migration Product URL

STEP 6 Click the **Info** tab to view detailed information about the device you selected.

STEP 7 Click the **Events** tab to view network events.

- a. Click the **Show event with severity equal to or higher than** drop-down list to change the severity to view only the events within the severity level in which you are interested.
- b. After you have changed the severity level, click **Refresh** to update the list.

STEP 8 Click the **Notes** tab to enter information about the device.

STEP 9 Click **OK**.

Creating a Lifecycle Digest Report

The type of Cisco OnPlus account that you have determines the type of report capability to which you have access. All customers have access to the Lifecycle Digest report.

- Lifecycle Digest is used to send the current device lifecycle status to customers that includes: contract, warranty, end-of-life, and advisories about the devices uploaded to OnPlus.
- Lifecycle Digest reports are sent using email in formatted HTML.
- The email notifications are sent at user-scheduled intervals, always delivered on Monday morning, and can be written in the language you choose.

To create a Lifecycle Digest report, follow these steps:

STEP 1 From the Dashboard page, choose **Reports > Lifecycle Digest Settings**.

STEP 2 The **Email Notification** checkbox is **On** by default. By clicking the **Off** checkbox, you will disable the Lifecycle Digest report option.

STEP 3 Fill in the required fields to set the delivery criteria.

- **Preferred Language** — Choose language from the drop-down list options.
- **Report Recipient** — Choose the email address from the drop-down list to which the report will be sent.
- **Frequency** — Choose the option from the drop-down list that best fits your needs. Reports can be delivered weekly, biweekly, or monthly.

STEP 4 From the **Categories** menu, select the options by placing a check in the box next to the option(s) that you want to appear in your Lifecycle Digest report.

STEP 5 Click **Save**.

The report provides links to detailed information for each entry. For example, if you click **View Details** at the end of the line that reports the number of warranties that are expiring, you will open the Cisco Onplus Portal and, after signing in, the Warranty Information page is displayed showing the expired warranties at the top of the warranties list. You can also link directly to the OnPlus Scanner from the report.

The links at the end of the report, **Helpful Link(s)**, let you change the frequency of the Lifecycle Digest report or discontinue the report completely. There is also a link that allows you to comment or offer suggestions about the Lifecycle Digest report.

The illustration shows the content of the Lifecycle Digest report.

The screenshot shows a web-based report titled "Cisco OnPlus Service Lifecycle Digest". At the top, there is a message: "Below is a brief lifecycle summary of your scanned devices. You last scanned your inventory 4 days ago. To refresh your inventory, launch the [OnPlus Scanner](#)". Below this, several sections provide summary statistics:

- 5 device(s) have reached a new **Hardware End of Life milestone** and there are 0 device(s) with existing **Hardware End of Life notifications**. [View details](#).
- 3 device(s) have a new **Software End of Life notifications** and there are 0 device(s) with existing **Software End of Life notifications**. [View details](#).
- 3 device(s) have a **Warranty** expiring within the next 90 days, and there are 0 device(s) with **expired Warranties**. [View details](#).
- 0 device(s) have a **Service Contract** expiring within the next 90 days, and there are 0 device(s) with **expired Service Contract**. [View details](#).
- There are 7 new **Product Security Advisories** for your devices, and 0 existing **Product Security notifications**. [View details](#).
- 2 device(s) have a new **Field Notice**, and 0 device(s) have existing **Field Notices**. [View details](#).

At the bottom, under "Helpful Link(s)", there are three links:

- To adjust the frequency of this digest, [Click Here](#)
- To stop this digest completely, [Click Here](#)
- To provide feedback on this digest [Click Here](#)

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Migrating from Cisco OnPlus Scanner to Cisco OnPlus ON100

Customers can migrate from a Cisco OnPlus Scanner account to a Cisco ON100 account, or choose to become a Cisco Registered Partner. As an ON100 Customer or as a Cisco Partner you will be able to take advantage of additional features and functionality that are offered by the Cisco OnPlus Service. To learn about the Cisco ON100 or about becoming a Cisco Registered Partner, from the Dashboard, choose **ON100 > Learn**. When the Cisco OnPlus Service page appears, you will find:

- A detailed video that explains the features of the OnPlus Scanner account and ON100 account
- A topics section called OnPlus for Customer
- A topics section called OnPlus for Partners
- A topics section called Cisco OnPlus Community

The Cisco OnPlus Service page includes more tabs with links to a wide array of information that will help you choose the best Cisco OnPlus options for you and your network.

Cisco OnPlus Scanner Supported Devices

Add the following devices as necessary to the Cisco Device Feature Support section:

- Cisco Catalyst 2000, 3000, 4500 & 6500 series switches and line cards
- Cisco Integrated Services Routers
- Cisco Wireless Access Points

Where To Go From Here

Cisco provides a wide range of resources to help you obtain the full benefits of the Cisco OnPlus Portal.

Support	
Cisco Small Business Support Community	www.cisco.com/go/smallbizsupport
Cisco Small Business Support and Resources	www.cisco.com/go/smallbizhelp
Phone Support Contacts	www.cisco.com/go/sbsc
Cisco Small Business Firmware Downloads	www.cisco.com/go/software
Product Documentation	
Cisco ON100 Network Agent	www.cisco.com/go/onplus-docs
Cisco OnPlus Portal	www.cisco.com/go/onplus-docs

Cisco Small Business

Cisco Partner Central for Small Business (Partner Login Required)	www.cisco.com/web/partners/sell/smb
Cisco Small Business Home	www.cisco.com/smb

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