

# **D-Link Network Assistant (DNA) User Guide**



Version: 3.00

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# **Version History**

Revision	Date	Description	
3.00	3.00 March 19, 2018	Updated for firmware v4.00     Updated installation instructions	
		<ul> <li>Updated installation instructions</li> </ul>	

# **System Requirements**

Version	Description		
CPU	1.3 GHz Intel Pentium 4 processor or above		
Memory	512 MB or above		
Disk Space	350 MB above		
Supported Operating Systems	<ul><li>Windows 7</li><li>Windows 8</li><li>Windows 10</li></ul>		
Prerequisite Software	<ul> <li>Google Chrome v44 or above</li> <li>Internet Explorer 11 or above</li> <li>Other browser supported by Windows operating systems</li> </ul>		

#### 1. Introduction

The manual is organized by the menu layout in the D-Link Network Assistant (DNA).

See the Interface Overview section for more information.

#### **Audience**

This reference manual is intended for network administrators and other IT professionals responsible for managing network devices using DNA. Alternative management interfaces, such as the Web User Interface (Web UI) and Command Line Interface (CLI) may also be available for your devices but are not documented in this manual. This manual is written in a way that assumes that you already have a basic knowledge of modern networking principles.

#### **Other Documentation**

The documents below are a further source of information in regards to configuring and troubleshooting DNA. All the documents are available from the D-Link website <a href="http://tools.dlink.com/intro/dna/">http://tools.dlink.com/intro/dna/</a>. Other documents related to DNA are:

Quick Installation Guide

#### **Conventions**

Convention	Description		
Boldface Font	Indicates a button, a toolbar icon, menu, or menu item. For example: Open the <b>File</b> menu and choose <b>Cancel</b> . Used for emphasis. May also indicate system messages or prompts appearing on screen. For example: <b>You have mail</b> . Bold font is also used to represent filenames, program names and commands. For example: use the <b>copy</b> command.		
Initial capital letter	Indicates a window name. Names of keys on the keyboard have initial capitals. For example: Click Enter.		
Menu Name > Menu Option	Indicates the menu structure. <b>Device &gt; Port &gt; Port Properties</b> means the <b>Port Properties</b> menu option under the <b>Port</b> menu option that is located under the <b>Device</b> menu.		
Blue Courier Font	This convention is used to represent an example of a screen console display including example entries of CLI command input with the corresponding output.		

Table 1-1 - Conventions

## **Notes, Notices, and Cautions**

Below are examples of the three types of indicators used in this manual. When administering your device using the information in this document, you should pay special attention to these indicators. Each example below provides an explanatory remark regarding each type of indicator.



**NOTE:** A note indicates important information that helps you make better use of your device.



**NOTICE:** A notice indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.



**CAUTION:** A caution indicates a potential for property damage, personal injury, or death.

### 2. Product Introduction

The D-Link Network Assistant (DNA) is an application which simplifies the first-time setup of D-Link devices. This tool is free and is available on any device that is able to run the Windows OS via web browser. It is compatible with any supported device running D-Link Discovery Protocol (DDP) version 0.22 or later, and will automatically scan the network for new or existing devices.

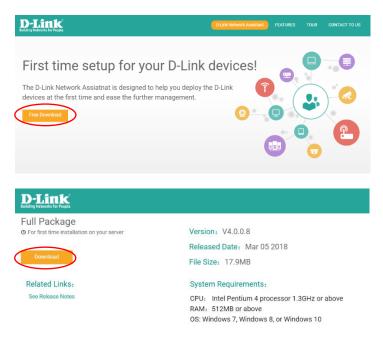
The DNA tool makes the first-time setup of D-Link switches and Security Service Routers (DSRs) simple. When a new device has been detected, it is added to the inventory, so it can be managed along with existing devices. The IP address can be set, the default username and password can be changed, and SNMP information can be configured, so that the device can be managed with an existing Network Management System (NMS).

The DNA allows you to set up new devices quickly and easily. Devices can be organized into workspaces, so that they can be managed based on physical or organizational requirements. First-time setup of devices is greatly simplified, significantly reducing the time it takes to integrate a new device with the network and lowering administration and maintenance costs.

### 3. Installation

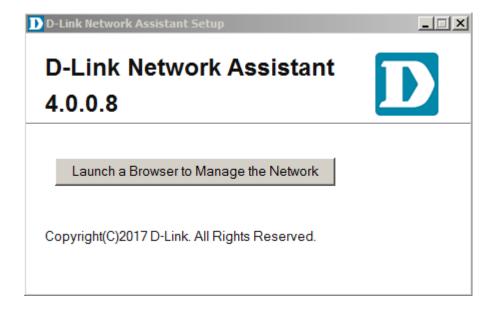
Follow these instructions to download and install the DNA tool.

Go to <a href="http://tools.dlink.com/intro/dna">http://tools.dlink.com/intro/dna</a> and click <a href="https://tools.dlink.com/intro/dna">Free Download</a>. On the next page, click <a href="https://tools.dlink.com/intro/dna">Download</a> to download the DNA installer file to your local hard drive.



- Run the DNA installer file and follow the on-screen instructions to complete the installation.
- Once installed, run the DNA application and click .Launch a Browser to Manage the Network. This will launch your default web browser and open the DNA interface window.

To use DNA in a different browser, enter <a href="http://localhost:[listening port">http://localhost:[listening port]</a> into the address bar.



To use DNA in a different browser, enter <a href="http://localhost:[listening">http://localhost:[listening</a> port 3000, enter <a href="http://localhost:3000/">http://localhost:3000/</a> into the address bar.

← → C ↑ http://localhost:3000	
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### 4. Interface Overview

This provides an overview of the different areas of the interface.

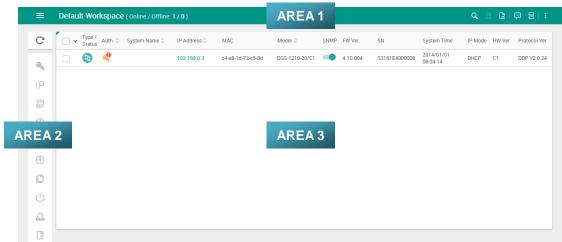


Figure 4-1 - Interface Overview

Field	Description	
AREA 1	This is the toolbar and is always displayed in the workspace.	
AREA 2	This is the batch settings menu which is always displayed in t workspace.	
AREA 3	This is the main window, which contains device information and the device inventory.	

Table 4-1 - Interface Overview



**NOTE:** Ensure that there is IP connectivity to the devices that you wish to manage from your management PC or device before continuing with the instructions.

## 5. Toolbar

This is the DNA toolbar, which contains features which are present in all workspaces.

The toolbar is always displayed in the workspace:

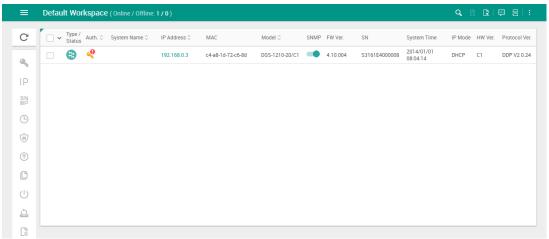


Figure 5-1 - Toolbar

Field	Description		
	The workspace management menu. This allows workspaces to be created, deleted, and renamed, and also allows global settings to be set.		
Q	The search feature. This is used for searching the workspace for specific device states.		
	Field	Description	
	Search	Enter device proper	ties to search the workspace for here.
	Q	Press this to begin t	he search.
Press this to get a list of pre-set device state for.		list of pre-set device states to search	
		Field	Description
		IP Conflict(s)	Search for devices in the workspace with IP conflicts.
		SNMP off	Search for devices in the workspace with SNMP off.
		New firmware available	Search for devices in the workspace with new firmware available.
		Search for unauthenticated devices in the workspace.	
R	The ignore list. This is for devices which have been removed from the workspace. There must be devices present in the ignore list for this icon to be available.		
	See the Ignore List section below for more information.		

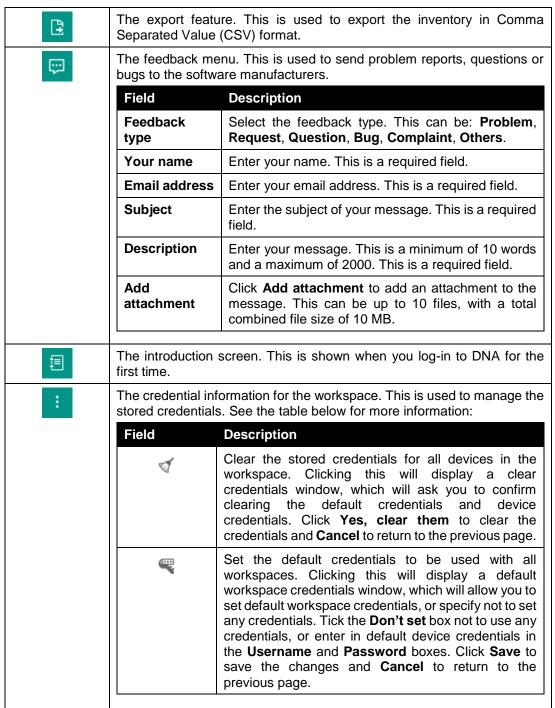


Table 5-1 - Toolbar

## **Workspace Management**

This is a sub menu which is displayed when the menu button is pressed in the top left hand corner of the DNA interface.

It can be viewed by pressing the menu button in the top left hand corner of the interface:



Figure 5-2 - Workspace Management

Field	Description		
Q	This is used to search for workspaces. The results are shown in the area below.		
Workspace	This area shows the search results and workspaces available when no search has been entered.		
	Field	Description	
		Rename the workspace by clicking this button. This is only displayed when hovering over the button with the mouse. This will open a Rename Workspace window which can be used to rename the workspace. Click <b>Rename this Workspace</b> to rename the workspace or <b>Cancel</b> to return to the previous page.	
		Delete the workspace by clicking this button. This is only displayed when hovering over the button with the mouse. This will open a Delete Workspace window which can be used to delete the workspace. Select the workspace and click <b>Yes</b> , <b>delete this Workspace</b> to delete the workspace, or <b>Cancel</b> to return to the previous page.  NOTE: This icon is only displayed when there is more than 1 workspace in the list.	

EN	This is used to change the language of DNA. Currently supported languages are EN (English), 简 (Simplified Chinese), 繁 (Traditional Chinese).		
	This is the list of devices that DNA supports. Clicking this will open the Supported Devices window. The device model, minimum hardware version and minimum firmware version are displayed. Devices are also grouped into categories such as switches and Security Service Routers (DSRs).		
0	These are the glob	pal settings for DNA.	
-	Field	Description	
	Country	Choose the country that DNA is being used in. This is used to determine the firmware which is available. This is a required field.	
	Backup file path	Enter the backup path for device backups using the DNA backup function. This is a required field.	
	Auto-discover devices when launching DNA	Enable this to automatically scan for devices when launching DNA. The default is enabled.	
	Clear credentials of all workspaces when closing DNA	Enable this to clear all stored credentials when exiting DNA. The default is disabled.	
	Click <b>Save</b> to save the settings or <b>Cancel</b> to return to the previous page.		
<b>+</b>	This is used to create a new workspace. Click this button to display a Create a new Workspace window. Enter a <b>Name</b> for the workspace and click <b>Create Workspace</b> to create the workspace or <b>Cancel</b> to return to the previous page. The maximum number of characters that can be entered is 32.		

Table 5-2 - Workspace Management

## **Ignore List**

This is the list of devices which have been removed from the inventory list in the workspace. They are still present in DNA, but will not be re-added to the workspace when the network is scanned for devices and are not managed through the workspace.

Use the ignore list icon in the toolbar to access the ignore list:



Figure 5-3 – Ignore List

Field	Description			
C.	Select a device in the list and click this to return the device to the inventory list or workspace.			
	Select a device in the list and click this to remove the device from the ignore list. This will cause the device to reappear in each workspace when the network is scanned for devices.			
Q	Enter device properties to search the ignore list for here.			
	Field	Description		
	Search	Enter device proper	ties to search the workspace for here.	
	Q	Press this to begin the search.  Press this to get a list of pre-set device states to search for.		
	~			
		Field	Description	
		IP Conflict(s)	Search for devices in the workspace with IP conflicts.	
		SNMP off	Search for devices in the workspace with SNMP off.	
New firmware Search for		workspace with new firmware		
		Unauthenticated Search for unauthen devices in the workspace.		
C	Press this to refresh the ignore list.			

Press this to export the ignore list in Comma Separated Va format.		
Select	Select either an individual device by ticking the check box next to the device, or choose all devices by ticking the check box at the top of the column.	
Type/Status	This is the device type and status. An icon will be displayed for the device type (switches, DSRs etc.) and the color of the icon will change, depending on device availability.	
Auth.	This is whether or not the device has been authenticated. If the device can be authenticated, the icon will be amber. If the device cannot be authenticated, the icon color will be gray, and a warning will appear if the device is using the default device username and password.	
System Name	This is the hostname set on the device.	
IP Address	This is the management IP address of the device.	
MAC	This is the MAC address of the device.	
Model	This is the model number the device.	
SNMP	This is whether Simple Network Management Protocol (SNMP) is enabled on the device. This cannot be changed from the ignore list.	
FW Ver.	This is the firmware version the device.	
SN	This is the serial number of the device.	
System Time	This is the system time on the device.	
IP Mode	This is the IP mode the device. If the switch is set to acquire an address automatically, this will be set to DHCP. If this has a static IP address, this will be set to Static.	
HW Ver.	This is the hardware version of the device.	
Protocol Ver.	This is the D-Link Discovery Protocol (DDP) version in use on the device.	
	T. 1.1. 5.0. 1 1.1.4	

Table 5-3 – Ignore List

## 6. Batch Settings

These can be used to apply settings to multiple devices.



**NOTE:** This menu is only available when two or more devices have been selected in the workspace.

The batch settings are always displayed in the workspace:

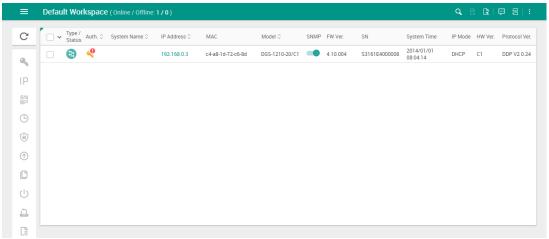


Figure 6-1 - Batch Settings

Field	Description			
C	Re-scan the network for devices and refresh the inventory list in the workspace.			
Q <sub>4</sub>	Enter shared authentication information. This only appears if all devices cannot be authenticated with DNA.			
	Field	Description		
	Username	Enter the username to authenticate with the selected devices.		
	Password	Enter the password to authenticate with the selected devices.		
	Click <b>Save</b> to save the settings or <b>Cancel</b> to return to the previous page.			
IP	Configure settings for automatic IP assignment, such as enablimode and automatically assigning static IPs for selected devices.			
	Field Description	ld Description		
	Enable DHC DHCP mode	P for the selected devices.		

		Assign static IDs out	ometically to the coloated devices
	Auto assign	Field	omatically to the selected devices.  Description
	static	Start from IP	Enter the start IP to use for the range.
	IPs	Subnet mask	Enter the subnet mask to use for the
		Default material	automatically assigned IPs.  Enter the default gateway for the
		Default gateway	selected devices.
	Click Apply	to apply the settings	or <b>Cancel</b> to return to the previous page.
SN MP	removing c Field Set SNM Status f all selecte	Description  Enable or disable or the righ	e selected devices, including adding and e SNMP for selected devices. Move the to enable SNMP and move it to the left of the l
	devices  Edit communi	and and and the Person	r remove community strings to or from the
		Field	Description
		<b>+</b>	Add a community string.
		Community ty	Select read-only or read-write as the community string type.
		Community name	Enter the name of the community string. The maximum number of characters that can be entered is 32.
		Туре	The type of action. Choose to add the community string to the selected devices, or to remove the community string from selected devices.
			Remove the community string.
	Click Apply	to apply the settings	or Cancel to return to the previous page.
<b>(</b>	Set the time zone for selected devices, including configuring a network time source using Network Time Protocol (NTP) or Simple Network Time Protocol (SNTP).		
	Field	Description	
	Time zone	Choose the local time	ne zone from the list.
	Method	This is the method t	hat is used to set the system clock.
		Field	Description
		Device time	Use the time set locally on the device. This can be set using the <b>Date</b> and <b>Time</b> fields.
		Use NTP / SNTP server	I leave and and Construction for the

	Click <b>Apply</b> to apply the s	ettings or <b>Cancel</b> to return to the previous page.	
(a)	Change the password for selected devices.  NOTE: This will change the password for the currently authenticated username on the device.		
	Field New password	<b>Description</b> Enter the new password to be used with the	
	New password	device. The Show/Hide characters button ( ) can be used to show or hide the entered password.	
	Repeat password	Confirm the new password to be used with the device. The Show/Hide characters button (③) can be used to show or hide the entered password.	
	Click <b>Apply</b> to apply the s	ettings or <b>Cancel</b> to return to the previous page.	
•		all selected devices. selected devices must be using unique IP n the local network and be identical hardware	
	Model of selected devices	s displays the model number of the selected vices.	
		e file to the <b>Drag &amp; drop</b> area to upload it to the o select a file on the local filesystem.	
C	Back up configuration for all selected devices. The Filename field shows the format that will be used for the filename.  Click <b>Backup now</b> to begin the backup or <b>Cancel</b> to return to the previous page.		
(1)	Reboot selected devices.		
	Field	Description	
	The network will be offline for 60 seconds	Tick this to confirm that you are aware that the network will be offline for 60 seconds as the device reboots.	
	Click <b>Yes, reboot these</b> of to the previous page.	levices to reboot the devices or Cancel to return	
<u>5</u>	Reset for all selected devi	ces to default settings.	
	Field	Description	
	All configurations will be lost	Tick this to confirm that you are aware that all configuration will be lost when the device is reset.	
	The system will reboot and be unavailable for roughly 90 seconds	Tick this to confirm that you are aware that the system will reboot and be unavailable for roughly 90 seconds when the device is reset.	
	The network will be disconnected shortly	Tick this to confirm that you are aware that the network will be disconnected shortly after the device is reset.	

Keep the IP configuration for these devices	Move the slider to the right to keep the IP configuration for the device, and move it to the left to include the device IP address in the configuration that will be lost when the device is reset.
	vices to reset the configuration on these devices ancel to return to the previous page.
Remove all selected devices from the inventory list.  Click <b>Yes, remove devices</b> to remove the devices from the inventory list, or <b>Cancel</b> to return to the previous page.	

Table 6-1 - Batch Settings



**NOTE:** The authentication information in DNA needs to be correct in order to apply batch settings to a device. If DNA cannot authenticate with a device, then it will not be possible to batch manage devices.

## 7. Main Window

This is the main window of the DNA interface, where the inventory list is displayed in the workspace. Use this to manage devices and view the general overview of all devices in the workspace.

The main window is displayed when a workspace is selected:

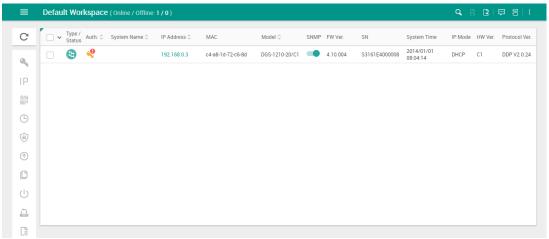


Figure 7-1 - Main Window

Field	Description
Select	Select either an individual device by ticking the check box next to the device, or choose all devices by ticking the check box at the top of the column.
Type/Status	This is the device type and status. An icon will be displayed for the device type (switches, DSRs etc.) and the color of the icon will change, depending on device availability.
Auth.	This is whether or not the device has been authenticated. If the device can be authenticated, the icon will be amber. If the device cannot be authenticated, the icon color will be gray, and a warning will appear if the device is using the default device username and password.
System Name	This is the hostname set on the device.
IP Address	This is the management IP address of the device.
MAC	This is the MAC address of the device.
Model	This is the model number the device.
SNMP	This is whether SNMP is enabled on the device. Move the slider to the right to enable SNMP and move it to the left to disable SNMP.
FW Ver.	This is the firmware version the device.
SN	This is the serial number of the device.
System Time	This is the system time on the device.
IP Mode	This is the IP mode the device. If the switch is set to acquire an address automatically, this will be set to DHCP. If this has a static IP address, this will be set to Static.
HW Ver.	This is the hardware version of the device.

Protocol Ver.	This is the D-Link Discovery Protocol (DDP) version in use on the
	device.

Table 7-1 - Main Window

## **Device Settings**

These are settings that apply to individual devices, and are the same settings which appear in the batch settings menu.

They can be viewed by hovering over the individual device entry in the workspace:

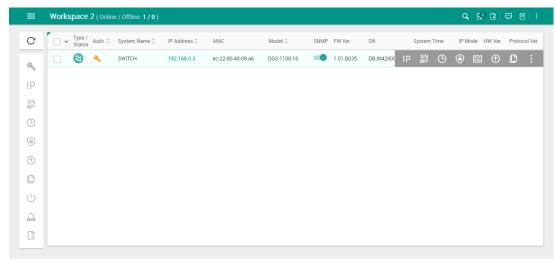


Figure 7-2 - Device Settings

Field	Description			
IP	_	P settings, such as statically assigning an IP address to the device, ring it for DHCP.		
	Field	Desc	ription	
	Static	Assig	n a static IP to tl	ne device.
		Field	d	Description
		IP address		Enter the IP address to assign to the device.
		Subnet mask		Enter the subnet mask for the device.
		Defa	ault gateway	Enter the default gateway for the device.
	DHCP	Enable DHCP on the device.		
	Click App	pply to apply the settings or Cancel to return to the previous page.		
SN MP	Enable or disable SNMP on the device, including adding or removing community strings.			
	Field Description			
	SNMP st	IVIF Status		ble SNMP on the device. Move the slider enable SNMP and move it to the left to .

		Add a community string	
	<b>•</b>	Add a community string.	
	•••••	Select read-only or read-write as the community string type.	
		Enter the name of the community string. The maximum number of characters that can be entered is 32.	
		Remove the community string.	
	Click <b>Apply</b> to appl	y the settings or <b>Cancel</b> to return to the previous page.	
(1)	Set the time zone for the device, including configuring a network time source using Network Time Protocol (NTP) or Simple Network Time Protocol (SNTP).		
	Field	Description	
	Time zone	Choose the local time zone from the list.	
	Device time	Use the time set locally on the device. This can be set using the <b>Date</b> and <b>Time</b> fields.	
	Use NTP / SNTF server	Use a network time source for clock synchronization. Choose <b>IPv4</b> and enter an IP address in the field below.	
	Click <b>Apply</b> to appl	y the settings or <b>Cancel</b> to return to the previous page.	
(A)	Change the password for selected devices.		
	Field Description		
	New password	Enter the new password to be used with the device.  The Show/Hide characters button (  ) can be used to show or hide the entered password.	
	Repeat password	Confirm the new password to be used with the device. The Show/Hide characters button ( ) can be used to show or hide the entered password.	
	Click <b>Apply</b> to appl	y the settings or <b>Cancel</b> to return to the previous page.	
i i i	Change the system name for the device.		
	Field	Description	
	System Name	Enter the hostname for the device.	
	Click <b>Apply</b> to appl	y the settings or <b>Cancel</b> to return to the previous page.	
<b>(1)</b>	Upgrade the firmware on the device.		
	Field	Description	
	Current firmware version		
	Update firmware using a local file	Drag and drop a firmware file here to upload it to the device, or click <b>browse</b> to select a file on the local filesystem.	



Back up or restore the device configuration.

Field	Description		
Backup	Back up the device configuration.		
-	Field	Description	
	Filename	This shows the file name that will be used for the saved configuration file.	
	Click <b>Backup now</b> to the previous page.	begin the backup or <b>Cancel</b> to return to	
Restore	Restore the device co	onfiguration.	
	Field	Description	
	Restore from a previous backup file	This option is available if a backup has been made using the Backup tab.  A list of the stored backups is displayed at the bottom of the page. Click <b>Restore</b> to restore a particular backup file, or press <b>Delete</b> to delete it.	
	Restore using a local file	Drag and drop a configuration file here to upload it to the device, or click <b>browse</b> to select a file on the local filesystem.	



The More button. Click this to display more device settings.



Reboot the device.

Field	Description
The network will be offline for 60 seconds	Tick this to confirm that you are aware that the network will be offline for 60 seconds as the device reboots.

Click **Yes**, **reboot this device** to reboot the device or **Cancel** to return to the previous page.



Reset the device to the default settings.

Field	Description
All configurations will be lost	Tick this to confirm that you are aware that all configuration will be lost when the device is reset.
The system will reboot and be unavailable for roughly 90 seconds	Tick this to confirm that you are aware that the system will reboot and be unavailable for roughly 90 seconds when the device is reset.
The network will be disconnected shortly	Tick this to confirm that you are aware that the network will be disconnected shortly after the device is reset.
Keep the IP configuration for this device	Move the slider to the right to keep the IP configuration for the device, and move it to the left to include the device IP address in the configuration that will be lost when the device is reset.

Click **Yes, reset these devices** to reset the configuration on the device to the factory default, or **Cancel** to return to the previous page.

苗	The device journey. This displayed the history of changes to the device. Select the <b>From</b> and <b>To</b> date to show a device history for particular dates.
	Remove the selected device from the inventory list.  Click <b>Yes, remove devices</b> to remove the devices from the inventory list, or <b>Cancel</b> to return to the previous page.

Table 7-2 – Device Settings