

# Configure Port Settings on Sx500 Series Stackable Switches

## Objective

Port Settings can be modified to help control traffic flow through a managed network. The default settings of most ports are sufficient for the network. When you want to get the most out of the device, you can manually select different options to configure the ports. The page also explains port status. Port Settings can be used to define global and per port settings of all ports.

The objective of this article is to show you how to configure port settings on the Sx500 Series Stackable Switches

## Applicable Devices

- Sx500 Series Stackable Switches

## Software Version

- v1.2.7.76

## Configure Port Settings

Step 1. Log in to the web configuration utility and choose **Status and Statistics > System Summary**. The *System Summary* page opens:

Step 2. Click on any of the switch ports on the GUI or choose **Port Management > Port Settings** and the *Port Settings* window appears.

## System Summary

### System Information

System Stack Mode:	Standalone
System Operational Mode:	L3 Mode
System Description:	24-Port 10/100 PoE Stackable Managed Switch
System Location:	<a href="#">Edit</a>
System Contact:	<a href="#">Edit</a>
Host Name:	switchb29075 <a href="#">Edit</a>
System Object ID:	1.3.6.1.4.1.9.6.1.80.24.2
System Uptime:	0 day(s), 18 hr(s), 48 min(s) and 37 sec(s)
Current Time:	12:19:33,2012-Jun-12
Base MAC Address:	e0:5f:b9:b2:90:75
Jumbo Frames:	Disabled

### Software Information

Firmware Version (Active Image):	1.2.5.70
Firmware MD5 Checksum (Active Image):	f35a2db92447e767bc0298112c938ecb
Firmware Version (Non-active):	1.2.0.97
Firmware MD5 Checksum (Non-active):	b1c8d05064a9dfc4c094a89c4bcc785
Boot Version:	1.2.0.12
Boot MD5 Checksum:	4275bacbc4222e4f519a3271d8564bd
Locale:	en-US
Language Version:	1.2.5.70
Language MD5 Checksum:	N/A

### TCP/UDP Services Status

[Edit](#)

HTTP Service:	Enabled
HTTPS Service:	Enabled
SNMP Service:	Disabled
Telnet Service:	Disabled

### PoE Power Information on Master Unit

[Detail](#)

Maximum Available PoE Power(W):	180
Total PoE Power Consumption(W):	0
PoE Power Mode:	Port Limit

Serial Number: DNI1601001Q      PID VID: SF500-24P-K9 V01



Step 3. Choose the port you wish to configure from the Port drop-down list. The *Port Type* field defines the type of physical connection that is used.

Interface:	Port <b>FE1</b>	Port Type:	100M-Copper
Port Description:	<input type="text" value=""/> (0/64 Characters Used)		
Administrative Status:	<input checked="" type="radio"/> U <input type="radio"/> D <input type="radio"/> E	Operational Status:	Up
Time Range:	<input type="text" value=""/>	Operational Time-Range State:	N/A
Time Range Name:	<input type="text" value=""/>		
Reactivate Suspended Port:	<input type="checkbox"/>		
Auto Negotiation:	<input checked="" type="checkbox"/> E	Operational Auto Negotiation:	Enable
Administrative Port Speed:	<input type="radio"/> 1 <input checked="" type="radio"/> 10 <input type="radio"/> 100 <input type="radio"/> 1000	Operational Port Speed:	100M
Administrative Duplex Mode:	<input type="radio"/> H <input checked="" type="radio"/> F	Operational Duplex Mode:	Full
Auto Advertisement:	<input checked="" type="checkbox"/> Max Capability <input type="checkbox"/> 10 Half <input type="checkbox"/> 10 Full <input type="checkbox"/> 100 Half <input type="checkbox"/> 100 Full <input type="checkbox"/> 1000 Full	Operational Advertisement:	10 Half10 Full100 Half100 Full
Neighbor Advertisement:	10 Half10 Full100 Half100 Full		
Back Pressure:	<input type="checkbox"/> Enable		
Flow Control:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="radio"/> Auto-Negotiation		
MDI/MDIX:	<input type="radio"/> MDIX <input type="radio"/> MDI <input checked="" type="radio"/> Auto	Operational MDI/MDIX:	MDIX
Protected Port:	<input type="checkbox"/> Enable		
Member in LAG:			

Step 4. Enter a description of the port in the *Port Description* field.

Interface:	Port <span>FE1</span>	Port Type:	100M-Copper
Port Description:	<span>user</span> (4/64 Characters Used)		
Administrative Status:	<input checked="" type="radio"/> Up <input type="radio"/> Down	Operational Status:	Up
Time Range:	<input checked="" type="checkbox"/> Enable		
Time Range Name:	<span>t1</span> <a href="#">Edit</a>	Operational Time-Range State:	N/A
Reactivate Suspended Port:	<input checked="" type="checkbox"/>		
Auto Negotiation:	<input checked="" type="checkbox"/> Enable	Operational Auto Negotiation:	Enable
Administrative Port Speed:	<input type="radio"/> 10M <input checked="" type="radio"/> 100M	Operational Port Speed:	100M
Administrative Duplex Mode:	<input type="radio"/> Half <input checked="" type="radio"/> Full	Operational Duplex Mode:	Full
Auto Advertisement:	<input checked="" type="checkbox"/> Max Capability <input type="checkbox"/> 10 Half <input type="checkbox"/> 10 Full <input type="checkbox"/> 100 Full <input type="checkbox"/> 1000 Full	Operational Advertisement:	10 Half10 Full100 Half100 Full
Neighbor Advertisement:	10 Half10 Full100 Half100 Full		
Back Pressure:	<input type="checkbox"/> Enable		
Flow Control:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="radio"/> Auto-Negotiation		
MDI/MDIX:	<input type="radio"/> MDIX <input type="radio"/> MDI <input checked="" type="radio"/> Auto	Operational MDI/MDIX:	MDIX
Protected Port:	<input type="checkbox"/> Enable		
Member in LAG:			

Step 5. Choose a radio button for the *Administrative Status* of the port. The administrative status of the port is displayed in the Operational Status field.

Interface:	Port <b>FE1</b>	Port Type:	100M-Copper
Port Description:	user (4/64 Characters Used)		
Administrative Status:	<input checked="" type="radio"/> Up <input type="radio"/> Down	Operational Status:	Up
Time Range:	<input checked="" type="checkbox"/> Enable		
Time Range Name:	t1 <a href="#">Edit</a>	Operational Time-Range State:	N/A
Reactivate Suspended Port:	<input checked="" type="checkbox"/>		
Auto Negotiation:	<input checked="" type="checkbox"/> Enable	Operational Auto Negotiation:	Enable
Administrative Port Speed:	<input type="radio"/> 10M <input checked="" type="radio"/> 100M	Operational Port Speed:	100M
Administrative Duplex Mode:	<input type="radio"/> Half <input checked="" type="radio"/> Full	Operational Duplex Mode:	Full
Auto Advertisement:	<input checked="" type="checkbox"/> Max Capability <input type="checkbox"/> 10 Half <input type="checkbox"/> 10 Full <input type="checkbox"/> 100 Full <input type="checkbox"/> 1000 Full	Operational Advertisement:	10 Half 10 Full 100 Half 100 Full
Neighbor Advertisement:	10 Half 10 Full 100 Half 100 Full		
Back Pressure:	<input type="checkbox"/> Enable		
Flow Control:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="radio"/> Auto-Negotiation		
MDI/MDIX:	<input type="radio"/> MDIX <input type="radio"/> MDI <input checked="" type="radio"/> Auto	Operational MDI/MDIX:	MDIX
Protected Port:	<input type="checkbox"/> Enable		
Member in LAG:			

The available options are defined as follows:

- Up — It is currently accessed by a PC or any other device.
- Down — It is not currently accessed by a PC or any other device.

Step 6. Check the **Enable** check box to enable Time Range with the port in **Up** state. When the time range is not active, the port is in shutdown. If a time range is configured, it is effective only when the port is administratively Up. If a time range is not yet defined, click **Edit** to go to the Time Range page and the *Time Range* page opens:

**Timesaver:** If you have time range configured already skip to step 13.

Step 7. Click **Add** to create a time range schedule for the desired port. The *Add Time Range* window appears.

Step 8. Enter a name for the time range in the *Time Range Name* field.

Step 9. In the *Absolute Starting Time* field, click a radio button.

- Immediate — The time range starts immediately.
- Date — This option is used for specific date and time. Choose the date and time from the Date and Time drop-down lists.

Step 10. In the *Absolute Ending Time* field, click a radio button.

- Infinite — The time range never ends.
- Date — This option is used for specific date and time. Choose the date and time from the Date and Time drop-down lists.

Step 11. Click **Apply** to save your time range and your entered time range will be on the *Time Range* page:

### Time Range

<input type="checkbox"/>	Time Range Name	Absolute Starting Time	Absolute Ending Time
<input type="checkbox"/>	t1	2012-Jun-26 11:41:00	2012-Jun-26 11:45:00

Step 12. Click on any of the switch ports on the GUI or choose **Port Management > Port Settings** and the *Port Settings* window appears.

Interface: Port FE1 ▾ Port Type: 100M-Copper

Port Description:  (4/64 Characters Used)

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Administrative Status: ☒ Up ☐ Down Operational Status: Up

Time Range: ☒ Enable

Time Range Name: t1 ▾ [Edit](#) Operational Time-Range State: N/A

Reactivate Suspended Port: ☒

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Auto Negotiation: ☐ Enable Operational Auto Negotiation: Enable

Administrative Port Speed: ☐ 10M ☒ 100M Operational Port Speed: 100M

Administrative Duplex Mode: ☐ Half ☒ Full Operational Duplex Mode: Full

Auto Advertisement: ☒ Max Capability ☐ 10 Half ☐ 10 Full ☐ 100 Half ☐ 100 Full ☐ 1000 Full Operational Advertisement: 10 Half 10 Full 100 Half 100 Full

Neighbor Advertisement: 10 Half 10 Full 100 Half 100 Full

Back Pressure: ☐ Enable

Flow Control: ☐ Enable ☒ Disable ☐ Auto-Negotiation

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MDI/MDIX: ☐ MDIX ☐ MDI ☒ Auto Operational MDI/MDIX: MDIX

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Protected Port: ☒ Enable

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Member in LAG:

Step 13. (optional) To reactivate a port that has been suspended, check the **Reactivate Suspended Port** check box. There are numerous ways that a port can be suspended, such as through the locked port security option, dot1x single host violation, loopback detection, or STP loopback guard. The reactivate operation brings the port up without regard to why the port was suspended.

Interface:	Port <b>FE1</b>	Port Type:	100M-Copper																												
Port Description:	user (4/64 Characters Used)																														
Administrative Status:		Operational Status:																													
<input checked="" type="radio"/> Up <input type="radio"/> Down		Up																													
Time Range:	<input checked="" type="checkbox"/> Enable																														
Time Range Name:	t1 <a href="#">Edit</a>	Operational Time-Range State: N/A																													
Reactivate Suspended Port:	<input checked="" type="checkbox"/>																														
<div style="border: 2px solid red; padding: 10px;"> <table border="0"> <tr> <td>Auto Negotiation:</td> <td><input checked="" type="checkbox"/> Enable</td> <td>Operational Auto Negotiation:</td> <td>Enable</td> </tr> <tr> <td>Administrative Port Speed:</td> <td> <input type="radio"/> 10M  <input checked="" type="radio"/> 100M         </td> <td>Operational Port Speed:</td> <td>100M</td> </tr> <tr> <td>Administrative Duplex Mode:</td> <td> <input type="radio"/> Half  <input checked="" type="radio"/> Full         </td> <td>Operational Duplex Mode:</td> <td>Full</td> </tr> <tr> <td>Auto Advertisement:</td> <td> <input checked="" type="checkbox"/> Max Capability  <input type="checkbox"/> 10 Half  <input type="checkbox"/> 10 Full  <input type="checkbox"/> 100 Full  <input type="checkbox"/> 100 Half  <input type="checkbox"/> 1000 Full         </td> <td>Operational Advertisement:</td> <td>10 Half10 Full100 Half100 Full</td> </tr> <tr> <td>Neighbor Advertisement:</td> <td colspan="3">10 Half10 Full100 Half100 Full</td> </tr> <tr> <td>Back Pressure:</td> <td colspan="3"><input type="checkbox"/> Enable</td> </tr> <tr> <td>Flow Control:</td> <td colspan="3"> <input type="radio"/> Enable  <input checked="" type="radio"/> Disable  <input type="radio"/> Auto-Negotiation         </td> </tr> </table> </div>				Auto Negotiation:	<input checked="" type="checkbox"/> Enable	Operational Auto Negotiation:	Enable	Administrative Port Speed:	<input type="radio"/> 10M <input checked="" type="radio"/> 100M	Operational Port Speed:	100M	Administrative Duplex Mode:	<input type="radio"/> Half <input checked="" type="radio"/> Full	Operational Duplex Mode:	Full	Auto Advertisement:	<input checked="" type="checkbox"/> Max Capability <input type="checkbox"/> 10 Half <input type="checkbox"/> 10 Full <input type="checkbox"/> 100 Full <input type="checkbox"/> 100 Half <input type="checkbox"/> 1000 Full	Operational Advertisement:	10 Half10 Full100 Half100 Full	Neighbor Advertisement:	10 Half10 Full100 Half100 Full			Back Pressure:	<input type="checkbox"/> Enable			Flow Control:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="radio"/> Auto-Negotiation		
Auto Negotiation:	<input checked="" type="checkbox"/> Enable	Operational Auto Negotiation:	Enable																												
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Administrative Duplex Mode:	<input type="radio"/> Half <input checked="" type="radio"/> Full	Operational Duplex Mode:	Full																												
Auto Advertisement:	<input checked="" type="checkbox"/> Max Capability <input type="checkbox"/> 10 Half <input type="checkbox"/> 10 Full <input type="checkbox"/> 100 Full <input type="checkbox"/> 100 Half <input type="checkbox"/> 1000 Full	Operational Advertisement:	10 Half10 Full100 Half100 Full																												
Neighbor Advertisement:	10 Half10 Full100 Half100 Full																														
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MDI/MDIX:	<input type="radio"/> MDIX <input type="radio"/> MDI <input checked="" type="radio"/> Auto	Operational MDI/MDIX:	MDIX																												
Protected Port:	<input checked="" type="checkbox"/> Enable																														
Member in LAG:																															

Step 14. Check the **Enable** check box in the Auto Negotiation field to enable Auto Negotiation. This allows a port to advertise its transmission speed, duplex mode, and flow control abilities to the port link partner. The Operational Auto-Negotiation field displays the current auto-negotiation status on the port.

**Timesaver:** If the Auto Negotiation check box is checked skip to step 16.

Step 15. Choose the desired Administrative Port Speed button. The Operational Port Speed field displays the current port speed that is the result of negotiation.

- 10 — 10Mbps network connectivity would be good for home use.
- 100 — 100Mbps network connectivity would be good for office use.

Step 16. Choose the desired *Administrative Duplex Mode*. This option helps the host to communicate with each one after the other (Half duplex) or both can send simultaneously(Full Duplex) . This field is configurable only when auto-negotiation is disabled, and the port speed is set to 10M or 100M. At port speed of 1G, the mode is always full duplex. The Operational Duplex Mode field displays the current duplex mode of the port.

- Full — The interface supports transmission between the switch and the client in both directions simultaneously.



- Half — The interface supports transmission between the switch and the client in only one direction at a time.

Step 17. Check the check box of any option in the *Auto Advertisement* field.

- Max Capability — All port speeds and duplex mode settings can be accepted.
- 10 Half — 10 Mbps speed and Half Duplex mode.
- 10 Full — 10 Mbps speed and Full Duplex mode.
- 100 Half — 100 Mbps speed and Half Duplex mode.
- 100 Full — 100 Mbps speed and Full Duplex mode.
- 1000 Full — 1000 Mbps speed and Full Duplex mode.

Step 18. Check the **Enable** check box in the *Back Pressure* field to slow down the packet reception speed when the switch is congested. It disables the remote port and prevents it from sending packets to jam the signal. This option can only be used on half duplex mode.

Step 19. Click a radio button in the *Flow Control* field. This helps in transmitting the frames on a priority basis. This option can only be used on full duplex mode.

- Enable — Enables 802.3x Flow Control.
- Disable — Disables 802.3x Flow Control.
- Auto Negotiation — Enables the auto–negotiation of Flow Control on the port.

Interface:	Port <b>FE1</b>	Port Type:	100M-Copper
Port Description:	user (4/64 Characters Used)		

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Administrative Status:	<input checked="" type="radio"/> Up <input type="radio"/> Down	Operational Status:	Up
Time Range:	<input checked="" type="checkbox"/> Enable		
Time Range Name:	t1 <a href="#">Edit</a>	Operational Time-Range State:	N/A
Reactivate Suspended Port:	<input checked="" type="checkbox"/>		

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Auto Negotiation:	<input type="checkbox"/> Enable	Operational Auto Negotiation:	Enable
Administrative Port Speed:	<input type="radio"/> 10M <input checked="" type="radio"/> 100M	Operational Port Speed:	100M
Administrative Duplex Mode:	<input type="radio"/> Half <input checked="" type="radio"/> Full	Operational Duplex Mode:	Full
Auto Advertisement:	<input checked="" type="checkbox"/> Max Capability <input type="checkbox"/> 10 Half <input type="checkbox"/> 10 Full <input type="checkbox"/> 100 Full <input type="checkbox"/> 100 Half <input type="checkbox"/> 1000 Full	Operational Advertisement:	10 Half10 Full100 Half100 Full
Neighbor Advertisement:	10 Half10 Full100 Half100 Full		
Back Pressure:	<input type="checkbox"/> Enable		
Flow Control:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="radio"/> Auto-Negotiation		

MDI/MDIX:	<input type="radio"/> MDIX <input type="radio"/> MDI <input checked="" type="radio"/> Auto	Operational MDI/MDIX:	MDIX
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Protected Port:	<input checked="" type="checkbox"/> Enable
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Member in LAG:

Step 20. Click any of the radio buttons for the *MDI/MDIX* field. It is to detect what kind of cable is used to connect whether the straight through cable or crossover cable.

- MDIX — Media Dependent Interface with Crossover (MDIX) swaps the port's transmit and receives pairs.
- MDI — Media Dependent Interface (MDI) connects this switch to a station with a straight through cable.
- Auto — Choose to configure this switch to automatically detect the correct pinouts for the connection to another device.

Interface:	Port <b>FE1</b>	Port Type:	100M-Copper
Port Description:	user (4/64 Characters Used)		
<hr/>			
Administrative Status:	<input checked="" type="radio"/> Up <input type="radio"/> Down	Operational Status:	Up
Time Range:	<input checked="" type="checkbox"/> Enable		
Time Range Name:	t1 <a href="#">Edit</a>	Operational Time-Range State:	N/A
Reactivate Suspended Port:	<input checked="" type="checkbox"/>		
<hr/>			
Auto Negotiation:	<input type="checkbox"/> Enable	Operational Auto Negotiation:	Enable
Administrative Port Speed:	<input type="radio"/> 10M <input checked="" type="radio"/> 100M	Operational Port Speed:	100M
Administrative Duplex Mode:	<input type="radio"/> Half <input checked="" type="radio"/> Full	Operational Duplex Mode:	Full
Auto Advertisement:	<input checked="" type="checkbox"/> Max Capability <input type="checkbox"/> 10 Half <input type="checkbox"/> 10 Full <input type="checkbox"/> 100 Full <input type="checkbox"/> 100 Half <input type="checkbox"/> 1000 Full	Operational Advertisement:	10 Half10 Full100 Half100 Full
Neighbor Advertisement:	10 Half10 Full100 Half100 Full		
Back Pressure:	<input type="checkbox"/> Enable		
Flow Control:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable <input type="radio"/> Auto-Negotiation		
<hr/>			
MDI/MDIX:	<input type="radio"/> MDIX <input type="radio"/> MDI <input checked="" type="radio"/> Auto	Operational MDI/MDIX:	MDIX
<hr/>			
Protected Port:	<input checked="" type="checkbox"/> Enable		
<hr/>			
Member in LAG:			

Step 21. Check the **Enable** check box in the Protected Port field. Packets from protected port are being forwarded to unprotected egress ports.

**Note:** If the port is a member of a LAG, the LAG number is displayed in the Member in LAG field, otherwise this field is left blank. LAGs are used to multiply the bandwidth, increase port flexibility, and provide link redundancy between devices.

Step 22. Click **Apply** to save your port settings.