



DATACOM

SYSTEMS INC



DS-4000 Bypass Switch

DURAstream™ 1 Gigabit DS-4000

FASTStart Guide

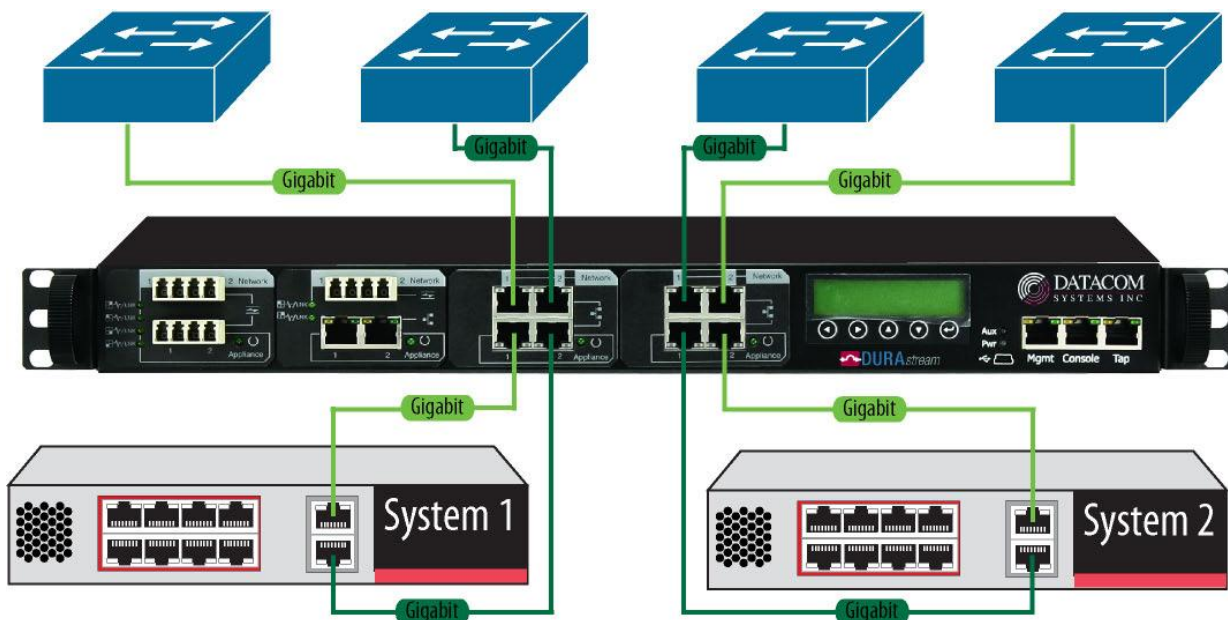
What is included?

- (1) Model: DS-4000 series Bypass Switch
- (1) Console Cable (DB9 to RJ45)
- (1) Management Cable (RJ45 to RJ45)
- (2) Switching AC Adapters
- (2) AC Line Cords

Summary:

Datacom Systems Inc. DURAstream™ DS-4000 Bypass Switch is a 1Gbps intelligent external active bypass that enables plug and play connectivity which includes an auto heartbeat and requires no additional drivers to be installed on any connected appliance.

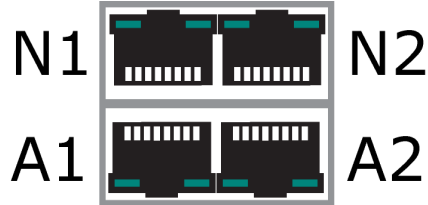
The DS-4000 consists of four 1Gbps segments which can support four network segments and four appliances. In our example below, we show two network segments being connected with two systems (typically IPS) using a DS-4000.



If one of the links connected to an appliance segment goes down, the DS-4000 will directly connect the network ports on the segment and bypass the appliance. This will ensure that the network segment will remain connected even if the appliance on the segment goes down.

Port Layout:

Ports are designated as Network or Appliance Ports as shown below:



Network and Appliance Ports

Default Settings:

SSH	
Port:	22
User Settings	
Username:	admin
Password:	admin
Management Port Settings	
IP Address:	192.168.0.111
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.0.1
Serial Terminal Settings	
Bits per second:	115200
Data bits:	8
Parity:	None
Stop:	1
Flow Control:	None

CLI Installation Commands:

Changing Management Port Settings

1. Show the current management port settings
datacom>show management-if
2. Enter configuration mode for management interface.
datacom>configure management-if
3. To configure static IP settings:
datacom(configure-management-if)>ip static <ip address> mask <network mask> gateway <gateway IP address>

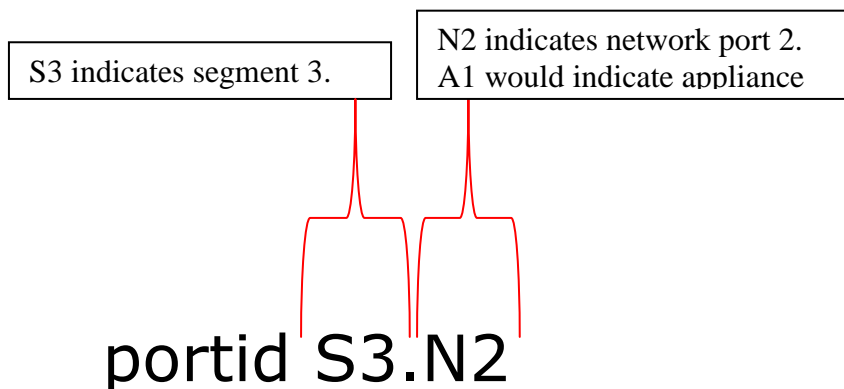
Example:

```
datacom(configure-management-if)>ip static 10.10.10.10 mask  
255.255.255.0 gateway 10.10.10.1
```

4. To assign the IP settings dynamically:
datacom(configure-management-if)>ip dhcp

Changing Network/Appliance Port Settings:

1. Show the current port settings:
datacom>show links configuration
2. Enter configuration mode for a network or appliance Port:
datacom>configure port portid S3.N2



3. To change the port status between up and down:
datacom ports portid S3.N2>link <auto/down>
4. To modify the speed/duplex on the port:
datacom ports portid S3.N2>speed <auto/10M/100M/1G> <auto/full/half>

Example:

datacom ports portid S3.N2>speed 100M full

Changing Segment Settings:

1. Show the current bypass settings:
datacom>show bypass mode
datacom>show bypass status
datacom>show bypass heartbeat
2. Enter configuration mode for a segment:
datacom>configure segment 1
3. Enable/Disable link fault detection:
datacom(segment[1])>lfd <enabled/disabled>
4. Set segment boot-mode:
datacom(segment[1])> boot-mode heartbeat <normal-active-bypass/normal-active-inline/manual-active-inline/manual-active-bypass-plus/manual-active-bypass/manual-passive-bypass/auto>

Example:

datacom ports portid S3.N2>bypass boot-mode heartbeat normal-active-bypass

GUI Tutorial:

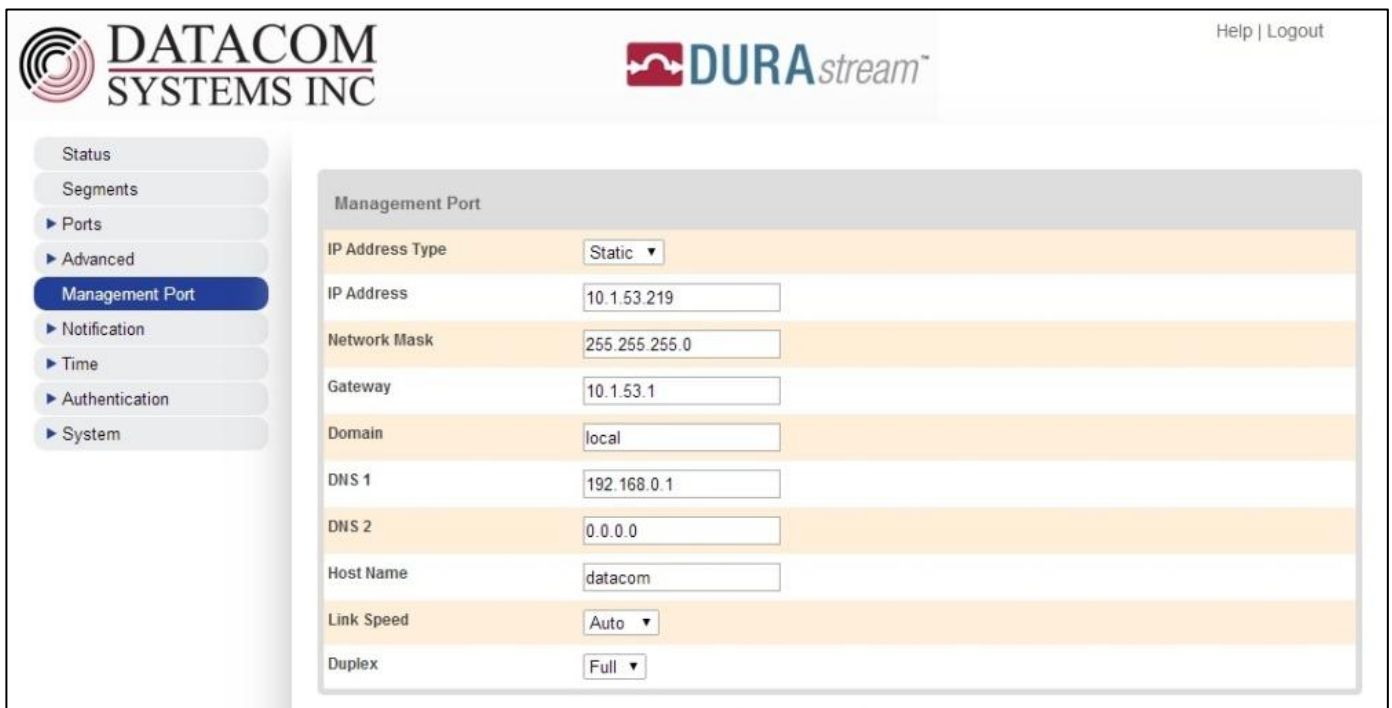
By clicking on the “Management Port” tab on the left side of the page, you can view the management port fields. Clicking on the blue “Management Port” title at the top will enter configuration mode.



The screenshot shows the Datacom Systems Inc interface with the DURAstream logo. On the left, a navigation menu includes Status, Segments, Ports, Advanced, Management Port (highlighted in blue), Notification, Time, Authentication, and System. The main content area displays the Management Port settings in a table format:

Management Port	
IP Address Type	Static
IP Address	10.153.219
Network Mask	255.255.255.0
Gateway	10.153.1
Domain	local
DNS 1	192.168.0.1
DNS 2	0.0.0.0
Host Name	datacom
Link Speed	Auto
Duplex	Full

Page to view Management port settings

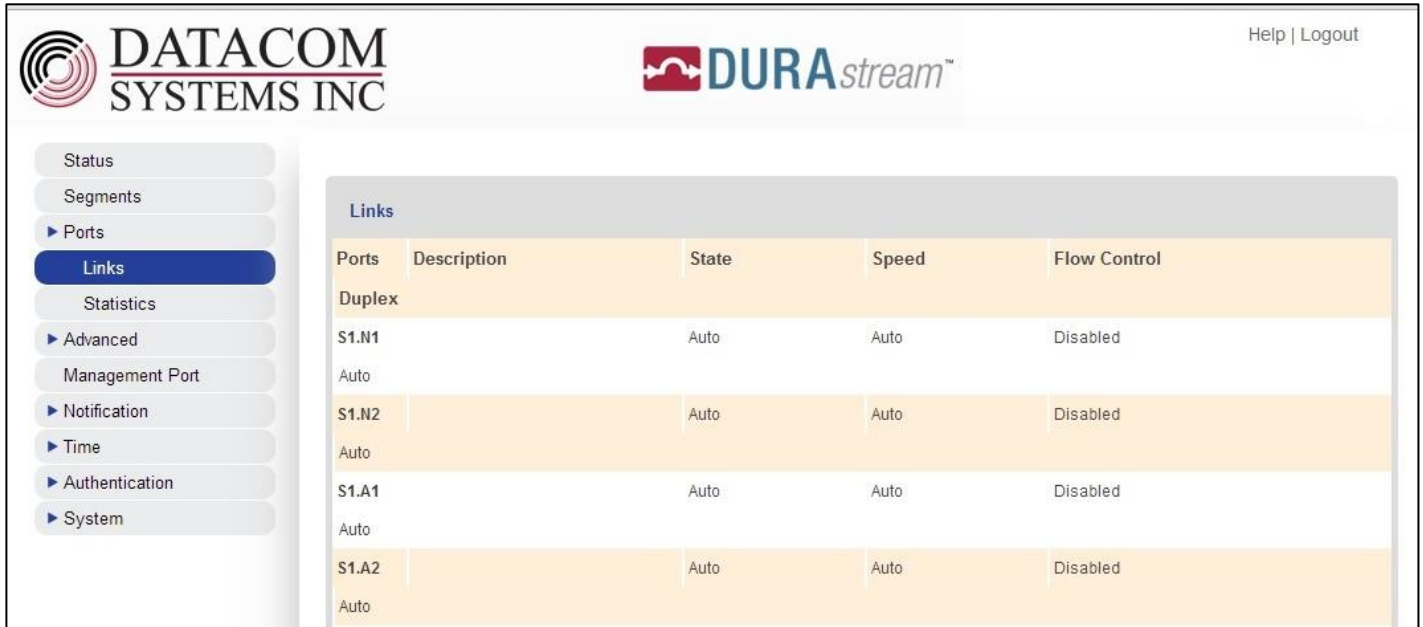


The screenshot shows the same Datacom Systems Inc interface, but the Management Port settings are now in edit mode. The navigation menu is identical. The main content area displays the Management Port settings with input fields and dropdown menus:

Management Port	
IP Address Type	Static ▼
IP Address	<input type="text" value="10.153.219"/>
Network Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="10.153.1"/>
Domain	<input type="text" value="local"/>
DNS 1	<input type="text" value="192.168.0.1"/>
DNS 2	<input type="text" value="0.0.0.0"/>
Host Name	<input type="text" value="datacom"/>
Link Speed	Auto ▼
Duplex	Full ▼

Page to edit Management port settings

Clicking on the “Ports” section on the left side of the page and then selecting the “Links” tab will bring up a page that shows the settings for all network and appliance ports on the DS-4000. To configure the link settings, click on the blue “Links” title at the top of the page.

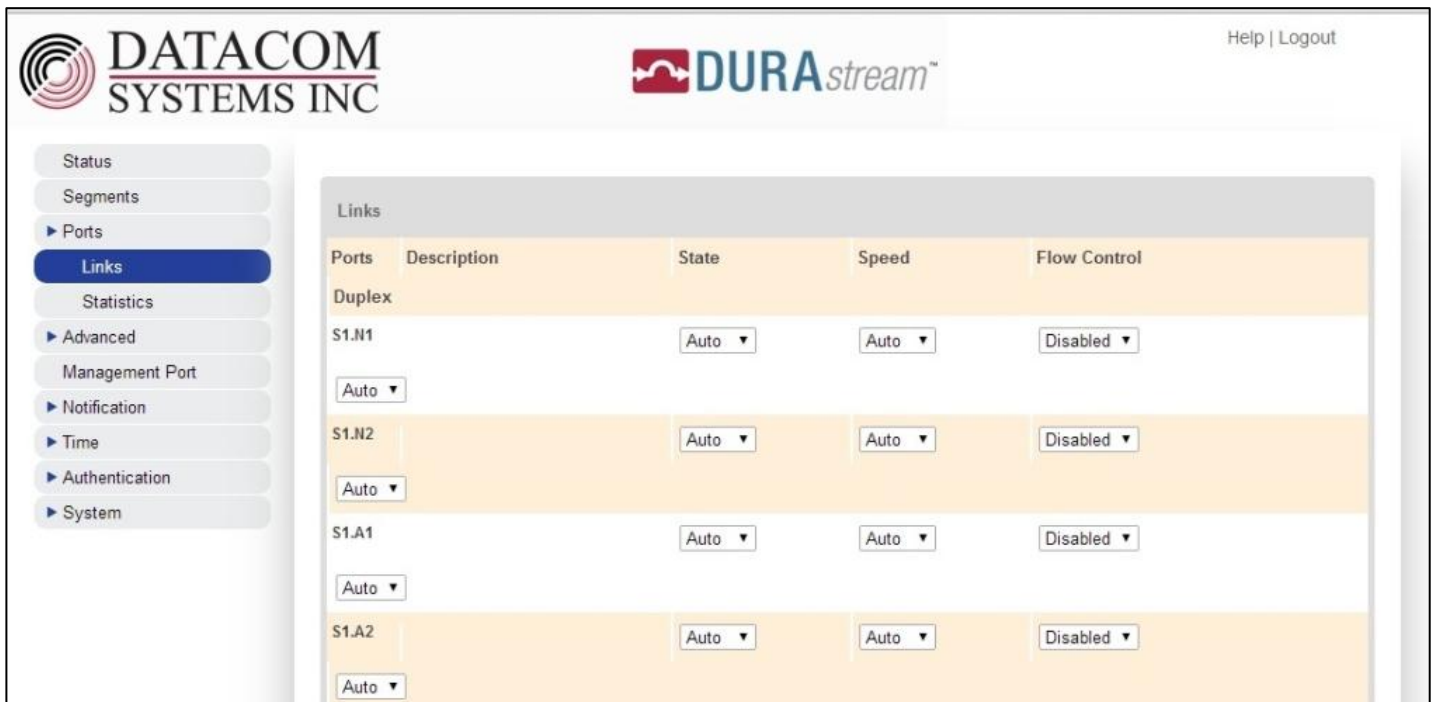


DATACOM SYSTEMS INC **DURAstream™** Help | Logout

Status
Segments
Ports
Links
Statistics
Advanced
Management Port
Notification
Time
Authentication
System

Ports	Description	State	Speed	Flow Control
Duplex				
S1.N1		Auto	Auto	Disabled
Auto				
S1.N2		Auto	Auto	Disabled
Auto				
S1.A1		Auto	Auto	Disabled
Auto				
S1.A2		Auto	Auto	Disabled
Auto				

Showing statistics for all Network/Appliance ports.



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Ports	Description	State	Speed	Flow Control
Duplex				
S1.N1		Auto ▼	Auto ▼	Disabled ▼
Auto ▼				
S1.N2		Auto ▼	Auto ▼	Disabled ▼
Auto ▼				
S1.A1		Auto ▼	Auto ▼	Disabled ▼
Auto ▼				
S1.A2		Auto ▼	Auto ▼	Disabled ▼
Auto ▼				

Edit the attributes of Network/Appliance ports.

Clicking on the “Segments” tab at the top left of the page will present information on all of the configurable attributes of segments. To configure a specific segment, click on one of the blue “Segment #” titles at the top of the screen.



The screenshot shows the DURAstream interface with the 'Segments' tab selected. A table displays the configuration for four segments (Segment 1 to Segment 4). The table has columns for the segment name and five columns for attributes: Bypass mode, Operation mode, Operation mode at boot, Heartbeat Frame, Heartbeat Ethernet Type, Heartbeat Source MAC, Heartbeat Destination MAC, and Heartbeat Source IP.

	Segment 1	Segment 2	Segment 3	Segment 4
Bypass mode	Internal	Internal	Internal	Internal
Operation mode	Normal active bypass	Normal active bypass	Normal active bypass	Normal active bypass
Operation mode at boot	Normal active bypass	Auto	Auto	Auto
Heartbeat Frame	ETH	ETH	ETH	ETH
Heartbeat Ethernet Type	0x88b5	0x88b5	0x88b5	0x88b5
Heartbeat Source MAC	00:0c:bd:00:00:00	00:0c:bd:00:00:00	00:0c:bd:00:00:00	00:0c:bd:00:00:00
Heartbeat Destination MAC	00:0c:bd:00:00:ff	00:0c:bd:00:00:ff	00:0c:bd:00:00:ff	00:0c:bd:00:00:ff
Heartbeat Source IP	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0

Showing all of the configurable attributes for segments.



The screenshot shows the DURAstream interface with the 'Segments' tab selected. The configuration form for Segment 1 is displayed, showing various attributes and their values.

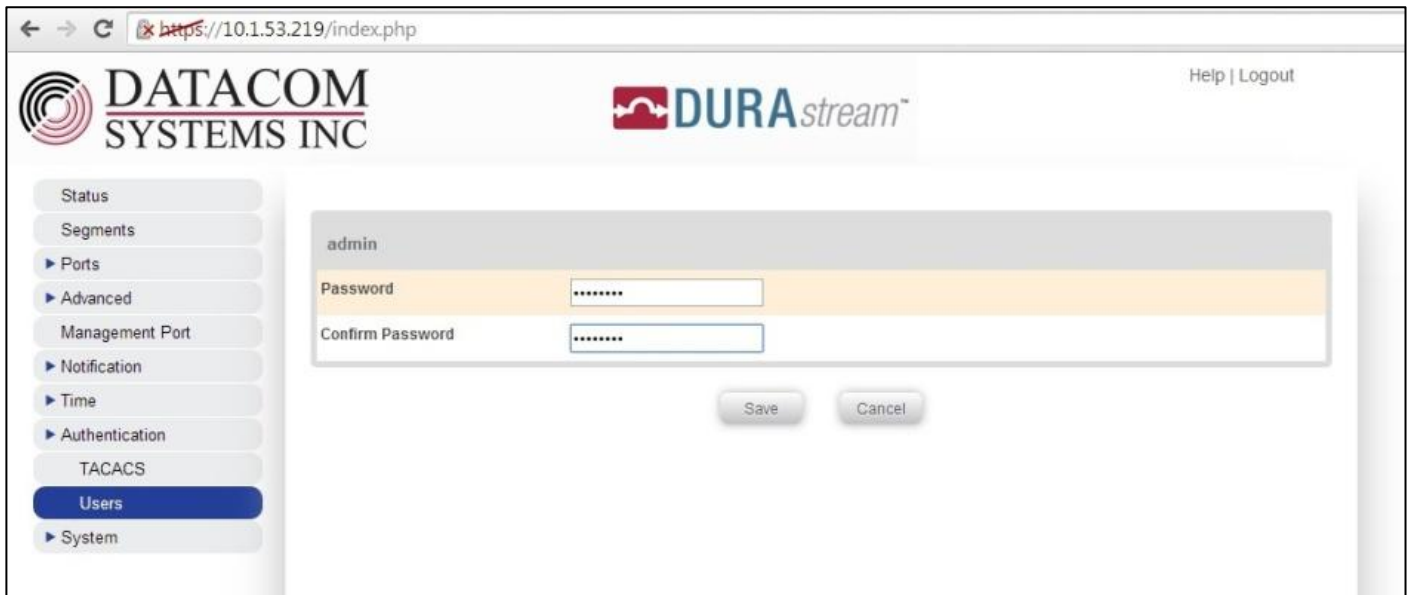
Segment 1 > Bypass	
Bypass mode	Internal
Operation mode	Normal active bypass
Operation mode at boot	Normal active bypass
Heartbeat Frame	ETH
Heartbeat Source MAC	00:0c:bd:00:00:00
Heartbeat Destination MAC	00:0c:bd:00:00:ff
Heartbeat interval (ms)	100

Configure the various attributes of a segment.

Clicking on the “Authentication” tab on the left side of the page and then selecting “Users” show the admin user. To configure password for admin, click on one of the blue “admin” title at the top of the screen.



Showing the admin account.



Modifying the password for the admin account.