

STOP FLYING BLIND – QUICKLY DISCOVER SWITCH PORTS AND INTELLIGENTLY OPTIMIZE YOUR INFRASTRUCTURE

Do you know how many of your switch ports are under-utilized and where you have excess capacity before making a new switch purchase? Can you easily locate and unplug a device marked as a security risk by a firewall? Are you aware of the existence of open network drops in common areas and meeting rooms? While troubleshooting network problems on a device, can you find out port speed and status without tracing the cable from the device to the switch?

With PortIQ™ appliances you can quickly :

- Eliminate port wastage, saving CapEx;
- Enhance security with vital port intelligence; and
- Improve visibility for faster troubleshooting.



Solution Benefits

- Optimize capital expenditures on switch purchases by reducing port wastage and increasing the utilization of existing switch ports
- Increase network security by quickly pinpointing the location of offending devices
- Maintain audit trails of end-point connections for security audits
- Identify network ports accidentally left open to minimize unauthorized access
- Locate where devices are connected for easy troubleshooting

PortIQ APPLIANCES PRODUCT OVERVIEW

The Infoblox PortIQ appliance provides complete visibility into switch port usage for port capacity planning, security audits and ease of troubleshooting. With Infoblox PortIQ appliances, network administrators can instantly identify the location of all connected devices and get reports on how often network ports are used. With this kind of unparalleled visibility, IT departments can make more intelligent switch purchase decisions. In addition, the ability to quickly locate where devices are connected increases security and eases troubleshooting effort.

The Infoblox PortIQ appliance scans your network infrastructure and quickly collects, analyzes and displays information to provide comprehensive insight into what is connected to your network and where. This insight enables network managers to make informed business decisions and reduce operational overhead and port wastage while enhancing network availability and security.

1. Eliminate port wastage – save CapEx – With no visibility into port usage patterns, IT departments routinely overestimate capacity requirements making unnecessary capital expenditures on switch purchases. PortIQ provides comprehensive reports on switch usage patterns including underutilized switches. These reports enable IT departments to better utilize their existing networking infrastructure before making costly purchases.

2. Vital port intelligence – Improves security – Lack of location information for end point devices makes it hard to enforce security when an offending device is identified. In addition, there is no audit trail for where a device connects to the network which makes it hard to investigate security incidents. PortIQ appliances maintain device connection information including connection history which makes it easy to disable an offending device or investigate security incidents.
3. Better visibility – Faster troubleshooting – Troubleshooting network incidents require identifying and locating devices on the network. Manual locating procedures are labor intensive and may reduce IT effectiveness by increasing resolution times. With PortIQ appliances, network administrators can quickly locate the switch port information for a connected device to help troubleshoot network issues.

The PortIQ appliance is available with the following software options:

PortIQ Appliance with IPAM Connector

With the IPAM Connector version, the PortIQ appliance is used for port discovery only and enhances the IPAM database in an Infoblox Grid by associating discovered switch and port information with IP, MAC and other IPAM data. This additional information helps network administrators to secure and troubleshoot networks faster.

The PortIQ appliance associates the following information for each IP and MAC address in the Infoblox IPAM database:

Switch Name, Switch Port, Switch Description, VLAN Name, VLAN Number, Switch status, Port Speed/Duplex, Link status, First seen and Last seen times.

The screenshot shows the IPAM interface with a table of IP addresses. A callout points to the enhanced fields in the table, and another callout points to the search filters.

IP Address	Name	MAC Address	Status	Type	First Seen	Last Discovered	Attached I	Attached Device	Port Descr	Port D	Port S	Port	VLAN	VLAN Na
10.0.1.6		00:04:96:11:06:d9	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G16X3-Port 1:11	Full	1G	Up	4090	incanet	
10.0.1.7		00:04:96:11:06:de	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G16X3-Port 1:13	Full	1G	Up	4090	incanet	
10.0.1.8		00:04:96:11:06:d8	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G24T3-Port 2:7	Full	1G	Up	4090	incanet	
10.0.1.9		00:04:96:11:06:74	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G24T3-Port 2:11	Full	1G	Up	4090	incanet	
10.0.1.12		00:00:48:cb:6b:c6	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G16X3-Port 1:11	Full	1G	Up	4090	incanet	
10.0.1.16		00:01:e6:76:36:2b	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G16X3-Port 1:13	Full	1G	Up	4090	incanet	
10.0.1.17		00:11:85:d6:72:a8	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G16X3-Port 1:11	Full	1G	Up	4090	incanet	
10.0.1.19		00:11:85:d2:2f:ac	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G24T3-Port 2:7	Full	1G	Up	4090	incanet	
10.0.1.20		00:11:85:d6:22:c6	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G24T3-Port 2:7	Full	1G	Up	4090	incanet	
10.0.1.25		00:c0:ee:1d:56:e9	Used	Unmanaged	2009-04-06 10:59:49 CEST	2009-04-06 23:03:23 CEST	core1	BD6808/G16X3-Port 1:13	Full	1G	Up	4090	incanet	

Figure 1: Infoblox IPAM data enhanced with PortIQ discovered fields e.g. Switch Name, Port and VLAN etc.

PortIQ Appliance with Capacity Management

The Capacity Management version of the PortIQ appliance includes a powerful software application that provides switch and port utilization and capacity reports. The reports provide a comprehensive inventory of network infrastructure and enable network managers to spot potential port exhaustion, identify devices with low utilization and re-balance their infrastructure to match capacity with needs and avoid unnecessary purchases. This results in a very fast ROI. The Capacity Management version of the PortIQ appliance can be used as a standalone system, and also includes the capabilities of the IPAM Connector, which means that it can be connected to an Infoblox Grid to enhance IPAM data with switch, port, VLAN and other data.

The screenshot shows the PortIQ Appliance interface with a table displaying switch utilization data. The table includes columns for Switch Name, History, No. Ports, Free Ports, Avail. Ports, % Avail., Last Seen, and Last Change. The data is filtered to show 'Current switches'.

Switch Name	History	No. Ports	Free Ports	Avail. Ports	% Avail.	Last Seen	Last Change
		3741	888	888			
Summit400-48t - enq-switch-020	S	51	7	7	14	2009-04-09 10:10:02	2009-04-09 10:10:02
enq-switch-001	S	161	66	66	41	2009-04-09 10:10:02	2009-04-09 10:10:02
core1	S	41	7	7	17	2009-04-09 10:10:02	2009-04-09 10:10:02
Summit400-48t - enq-switch-023	S	51	5	5	10	2009-04-09 10:10:02	2009-04-09 10:10:02
bananas.inca.infoblox.com	S	1	0	0	0	2009-04-09 10:10:02	2009-04-09 10:10:02

Figure 2: PortIQ Appliance switch view shows port utilization and free ports over a specified period

Performance and Capacity Specifications

Model	Max Scanning Speed*	Max Capacity
PortIQ-SME	40 Ports/Sec	20k Ports
PortIQ-1050-A	40 Ports/Sec	80k Ports
PortIQ-1550-A	80 Ports/Sec	320k Ports
PortIQ-1552-A	80 Ports/Sec	320k Ports

*Port scanning speed is dependant upon the customers network infrastructure.

Supported Switch Vendors

PortIQ is compatible with any network infrastructure device that meets the requirements below:

1. Supports SNMP (v1, v2c)
2. Has a discovery protocol enabled that maps into CDP or LLDP MIBs

A partial list of switches known to work with PortIQ:

- 3Com
- Cisco Systems
- Enterasys
- Extreme Networks
- Force10 Networks
- Foundry Networks
- HP
- Huawei Networks
- Nortel Networks (Baystack)

PortIQ-SME/-1050-A/1550-A/1552-A

Network interfaces	2 10/100/1000 Base-T Ethernet (LAN ports) 1 10/100/1000 Base-T Ethernet (HA port) 1 10/100/1000 Base-T Ethernet (MGMT port)
AC power supply	<p>Port IQ-SME/-1050-A/1550-A Input voltage: 100 to 240 VAC switchable, 47 to 63 Hz, 3A Output Power: 250W</p> <p>PortIQ-1552-A Input voltage: 100 to 240 VAC switchable, 47 to 63 Hz, 4A, redundant, dual input Output Power: 250W</p>
Operating temperature	35°F to 95°F (1.7°C to 35°C) 5% to 95% relative humidity, non-condensing
Storage temperature	-40°F to 122°F (-40°C to 50°C) 5% to 95% relative humidity, non-condensing
Dimensions and weight	<p>Port IQ-SME/-1050-A/1550-A Enclosure: 19 in. rack-mountable Height: 38.1 mm (1.5 in.); 1 rack unit Width: 438.2 mm (17.25 in.) Depth: 381 mm (15 in.) Weight: 13 lbs. (11 lbs. for 250)</p> <p>PortIQ-1552-A Enclosure: 19 in. rack-mountable Height: 38.1 mm (1.5 in.); 1 rack unit Width: 438.2 mm (17.25 in.) Depth: 545 mm (21.5 in.) Weight: 20 lbs.</p>
Certifications	Safety: UL, FCC, CE, TUV, CB, VCCI, C-Tick, CCC; Environmental: WEEE and RoHS
Support	Standard warranty includes 90-day software support with one-year hardware support; upgradable

Infoblox product warranty and services

The standard hardware warranty is for a period of one year. The system software has a 90-day warranty that will meet published specifications. Optional service products are also available that extend the hardware and software warranty. These products are recommended to ensure the appliance is kept updated with the latest software enhancements and to ensure the security and availability of the system. Professional services and training courses are also available from Infoblox. Information in this document is subject to change without notice. Infoblox Inc. assumes no responsibility for errors that appear in this document.