Anritsu

PureFlow™ Series

Unified Network Controller

PureFlow WS1
NF7501A

New platform for network solutions
Unified Network Controller

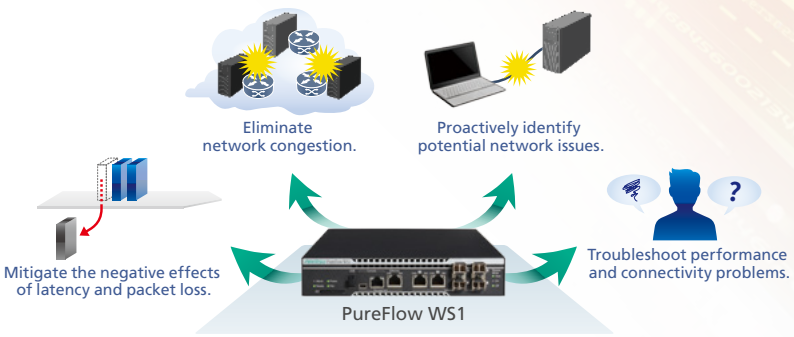
Future-proof design in a compact body.

New platform for network solutions.

PureFlow has evolved to respond to the ever-changing business network environment. The PureFlow WS1 Unified Network Controller is equipped with a bandwidth control function as a standard feature.
By adding additional licenses it can perform various functions.

PureFlow WS1

Unified Network Controller

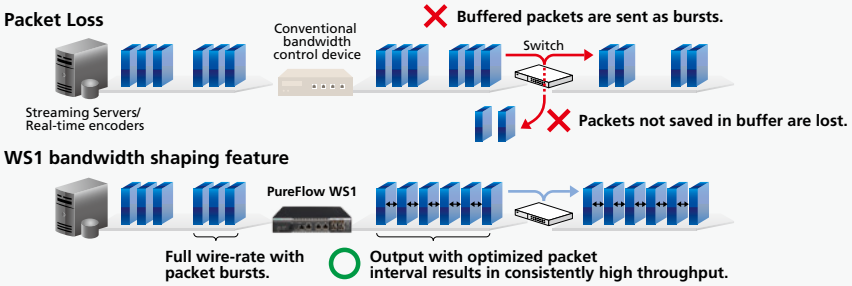


Resolve various WAN issues with one appliance.
Unified Network Controller

- **Easily control bandwidth with up to 4,096* queues.**
  Available for various policies.
  *Scenario expansion license is required.
- **Network port supports SFP*. (1000BASE-T,SX,LX)**
  It is possible to accommodate optical fiber directly.
  *SFP is optional parts.
- **Hierarchical shaping has 4 levels.**
  Support for multiple bandwidth control policies.
- **Bypass function is a standard feature.**
  Communication continues even in the unlikely event of a device failure.
  *PORT1,2 (10BASE-T/100BASE-TX/1000BASE-T)
- **Flexible system configuration.**
  REST(WebAPI) compatible, flexible Web GUI.
- **Maintenance support.**
  PureFlow is made in Japan for reliable support.

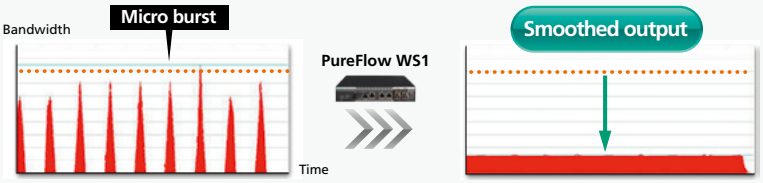
Improve communication efficiency with high precision traffic shaping.

Packets sent in bursts cannot be stored in the buffer of the network device and are discarded, likely degrading communication quality.
PureFlow WS1 has a proprietary high precision shaping engine that adjusts packet transmission intervals to smooth traffic and create a stable network environment.



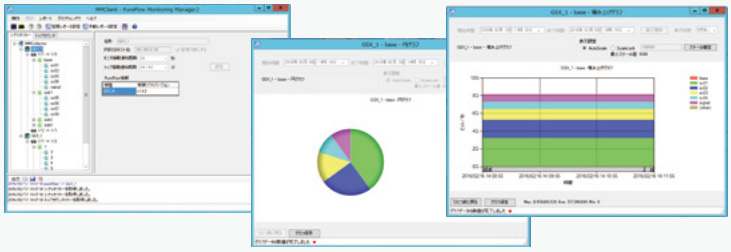
Eliminate packet loss by suppressing micro bursts.

High performance servers and image encoder devices can generate micro bursts and cause packet loss in the network switching and routing device.
PureFlow WS1 has a large capacity packet buffer to suppresses micro bursts and substantially reduce the likelihood of packet loss.



Monitoring Manager 2.

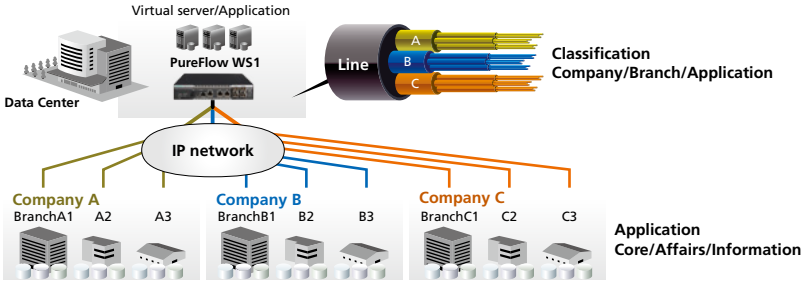
Monitoring manager 2 is a network visualization tool for displaying and reporting the traffic conditions present in the network in five different formats.
It can present those statistics according to your configuration.



Use cases

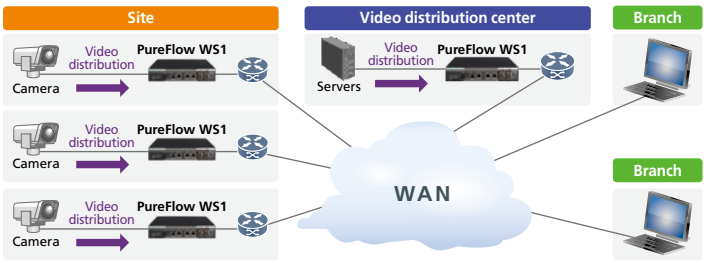
Corporate Networks

Business are increasingly meeting their communications needs by using complex media solutions including data traffic, VoIP, and teleconferencing. PureFlow series can control the bandwidth for each application, ensuring reliable communication performance. It will contribute to maintaining a high quality, stable, and efficient corporate network.



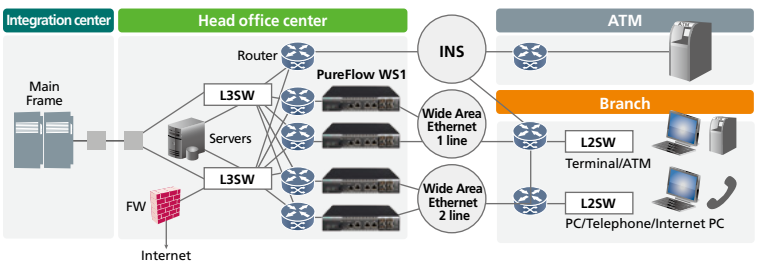
Video on Demand Services

Guaranteed low-latency network quality is a key demand for successful video streaming services like VoD. In a mixed network, streaming server data bursts can cause packet loss and instability.
The PureFlow series controls the bandwidth by adjusting burst packets to the ideal transmission rate, preventing packet loss and guaranteeing video and audio quality for the perfect streaming environment.



Financial Systems

Finance organizations not only need secure, reliable and stable communications, they also need to prioritize mission-critical traffic flows between branch offices.
PureFlow series controls bandwidth allocation to prioritize key applications while assuring lower-priority transfers get though too, all with guaranteed network stability.



PureFlow WS1 Main specifications

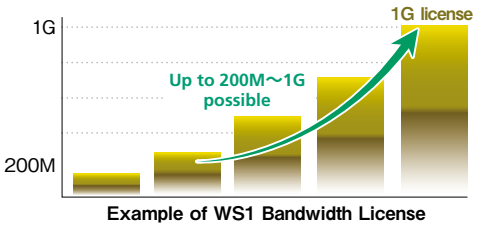
Item			Specification
Model			NF7501A
Controllable Bandwidth			1kbit/s to Standard 100Mbit/s to Maximum 1Gbit/s *1
Scenarios	Maximum number of Scenarios		Standard 2,048 Maximum 4,096 *2
	Maximum hierarchy levels		4 levels
	Scenario type		Aggregate mode, Individual mode, Discard mode
Filters	Maximum number of filters		10,000
Rule List	Maximum number of group		1,024
	Maximum number of entry		512
Flows	Maximum number of flows		512,000
Interface	Network Ports		Port 1 and 2 select RJ-45 or SFP *3. Port 3 and 4 select SFP *3 Available SFP : 1000BASE-SX,1000BASE-LX, 10/100/1000BASE-T
	Network Bypass Ports	Applicable port	Port 1, 2 (RJ-45)
		Applicable standard	10BASE-T/100BASE-TX/1000BASE-T
	Console Port		RS-232C (RJ-45) ×1, miniUSB×1
	SD card Slot		SD Card ×1
	USB Port		USB 2.0 Connector Type：Type A
	Management Ethernet Port		10BASE-T/100BASE-TX/1000BASE-T
QoS Bandwidth Control	Controllable Traffic		VLAN Tag (IEEE802.1Q), QinQ (IEEE802.1ad), IPv4, IPv6
	Controllable Items	Layer 2	VLAN ID, CoS, Ethernet-Type
		Layer 3	IP address, Protocol Number, ToS (IPv4), Traffic Class (IPv6)
		Layer 4	TCP/UDP Port Number
	Bandwidth Setting		Minimum guaranteed bandwidth, Maximum allowed bandwidth, Packet buffer size, Priority (8 level)
VLAN			VLAN Tag (IEEE802.1Q), QinQ (IEEE802.1ad)
Remarking function			Correspondence
Maximum Flame size	Network Port		2,048 bytes or 10,240 bytes
	Management Ethernet Port		1,518 bytes
Operation Management	Configuration		CLI via serial console/Telnet/SSHv2, RADIUS authentication, WebAPI, WebGUI, OpenFlow *4
	Management		CLI via serial console/Telnet/SSHv2, SNMPv1/v2c/v3, Enterprise MIB, SYSLOG, Peak rate monitor, WebGUI, OpenFlow *4
	Other		Traffic monitoring by Monitoring Manager 2. *5
Other Special Function			Link down transfer function, Network bypass function
Power Supply			AC100V-AC127V, AC200V-AC240V 50/60Hz ±2Hz
Power Consumption			85VA or less, 65W or less
Environmental Conditions	Operating Temperature		0 to 40°C / 32 to 104F
	Operating Humidity		20 to 80% (non condensing)
Dimension / Weight			42(H), 212(W), 375.5(D) mm (excluding protrusions) / 2.2kg or less
Safety			UL62368-1, CSA C22.2 No.62368-1-14, EN60950-1
EMC/EMI			VCCI-A, FCC-A, EN55032-A, RCM, JIS C 61000-3-2

*1：Base Model bandwidth is limited to 100Mbit/s, and optional Bandwidth License is required to extend to 200Mbit/s, 400Mbit/s, 700Mbit/s, or 1Gbit/s.
*2：Base model scenario is 2,048 scenarios, and optional Scenario Expansion Licenses are required to extend to 4,096 scenarios.
*3：SFP is optional parts.
*4：When setting and managing with OpenFlow, you need an optional license.
*5：Optional monitoring software “Monitoring Manager 2 (NF7201A)” and a server machine are required.

Bandwidth License

PureFlow WS1 series uses a license system with incremental steps.
You can upgrade according to your environment.

Bandwidth License
200M
400M
700M
1G
200M to 400M
400M to 700M
700M to 1G



Example of WS1 Bandwidth License

PureFlow Series LINE UP

PureFlow WS1 Series【Line bandwidth：100M～1Gbit/s】


NF7501A

PureFlow WSX Series【Line bandwidth：1G～10Gbit/s】


NF7601A
Standard model


NF7603A
Optical bypass model
(1000BASE-SX, 10GBASE-SR)


NF7604A
Optical bypass model
(1000BASE-LX, 10GBASE-LR)

Anritsu envision : ensure

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