iPECS
ES-2000 Series

iPECS Ethernet Switch
ES-2000/2000G Advanced Smart Switch Series

iPECS ES-2000/2000G Advanced Smart switches are perfect for SMBs looking for balanced solutions between advanced switching features and affordability.

Overview

The new LG-Nortel iPECS ES-2000/2000G is a family of Layer 2 advanced smart switches optimized for SMBs looking for reliable and cost effective layer 2 workgroup switches along with key switching features. These simple to install and easy to manage switches enable administrators to quickly and easily build the networks at an affordable cost.

iPECS ES-2000 series comes in 4 models from Fast Ethernet to Gigabit Ethernet offering multiple choices to address various demands and network environments flexibly and affordably. In addition, ES-2000 series delivers key layer 2 switching features, QoS, built-in security and Power over Ethernet (POE). The user-friendly intuitive GUI makes it easy to configure the ES-2000 to meet the customer needs.

To reduce the complexity and often time-consuming configuration process, LG-Nortel offers an industry-unique solution, the Unified Device Manager (UDM). UDM enables network administrators to quickly and easily manage multiple iPECS switches across the network.

These new LG-Nortel switches also incorporate the latest technologies such as Green Ethernet and PoE plus. ES-2000 switches can connect to high power consuming devices like 802.11n APs and multimedia videophones by providing up to 30 watts to these devices while connecting to other low power devices.

Highlights

Easy to Install
Auto-negotiation, Auto-MDI/MDIX,
At-a-glance tri-colored status LED

Smart Management
Managing multiple iPECS switches from a single intuitive graphic user interface

Green Ethernet
Environment friendly design for power saving via link connection and cable length

VoIP and UC Friendly
Advanced L2/L3 QoS, Economical & Flexible POE via 802.3af & 802.3at

Secure Networking
Secured authentication and encryption,
Port security and filtering

iPECS ES-2000/2000G Series

Models	Port Configurations
ES-2026	24 10/100Base-TX & 2 Gigabit combo uplinks (SFP/RJ-45)
ES-2026P	24 10/100Base-TX with POE on all ports & 2 Gigabit combo uplinks (SFP/RJ-45)
ES-2024G	24 10/100/1000Base-T & 4 Gigabit shared uplinks (SFP)
ES-2024GP	24 10/100/1000Base-T with POE on all ports & 4 Gigabit shared uplinks (SFP)

→ ES-2026

→ ES-2026P

→ ES-2024G

→ ES-2024GP

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Key Benefits

Easy to Install

iPECS ES Switches employ plug and play capabilities such as Auto-ne-gotiation for speed and duplex mode, Auto-MDI/MDIX, and at-a-glance tri-colored status LED right on top of the ports. Its intuitive web user interface makes the installation and administration much easier.

Smart Management

LG-Nortel offers an unique management tool, the Unified Device Manager (iPECS-UDM), which enables the management of all iPECS product lines from IP Telephony to Data Networks via a single man-agement interface. iPECS UDM simplifies network administration and management through the use of a single consistent and familiar interface.

Green Ethernet

iPECS ES-2000G Gigabit Ethernet Switches incorporate the latest green Ethernet technology to help you save energy costs for your network. ES-2000G Switches detect link status, allowing each port to power down when the port is not connected or the connected device is not active. In addition, it detects cable length and adjusts the signal strength accordingly.

Advanced Quality of Service

Prioritization of the data on the network is essential in order to en-sure that mission critical applications such as voice are delivered in a timely manner. The iPECS Ethernet Switch is able to classify packets into one of four different priority queues and serve each packet in the priority queues using WRR (Weighted Round Robin) or SPQ (Strict Priority Queuing) method.

Flexible Power over Ethernet (POE models only)

The LG-Nortel iPECS Ethernet POE switches are designed to support both 802.3af standard and 802.3at draft standard. Therefore, SMBs flexibly and cost effectively connect standard and high powered devic-es on a single LG-Nortel POE switch. In addition, the PoE control and monitoring can be easily managed via the intuitive web user interface.

Secure Networking

iPECS ES-2000/2000G Ethernet Switches support key security fea-tures like RADIUS authentication and authorization as well as multi-layer filtering. All web management sessions are secured with HTTPS encryption.

Converged Network using iPECS Ethernet Switch Solutions
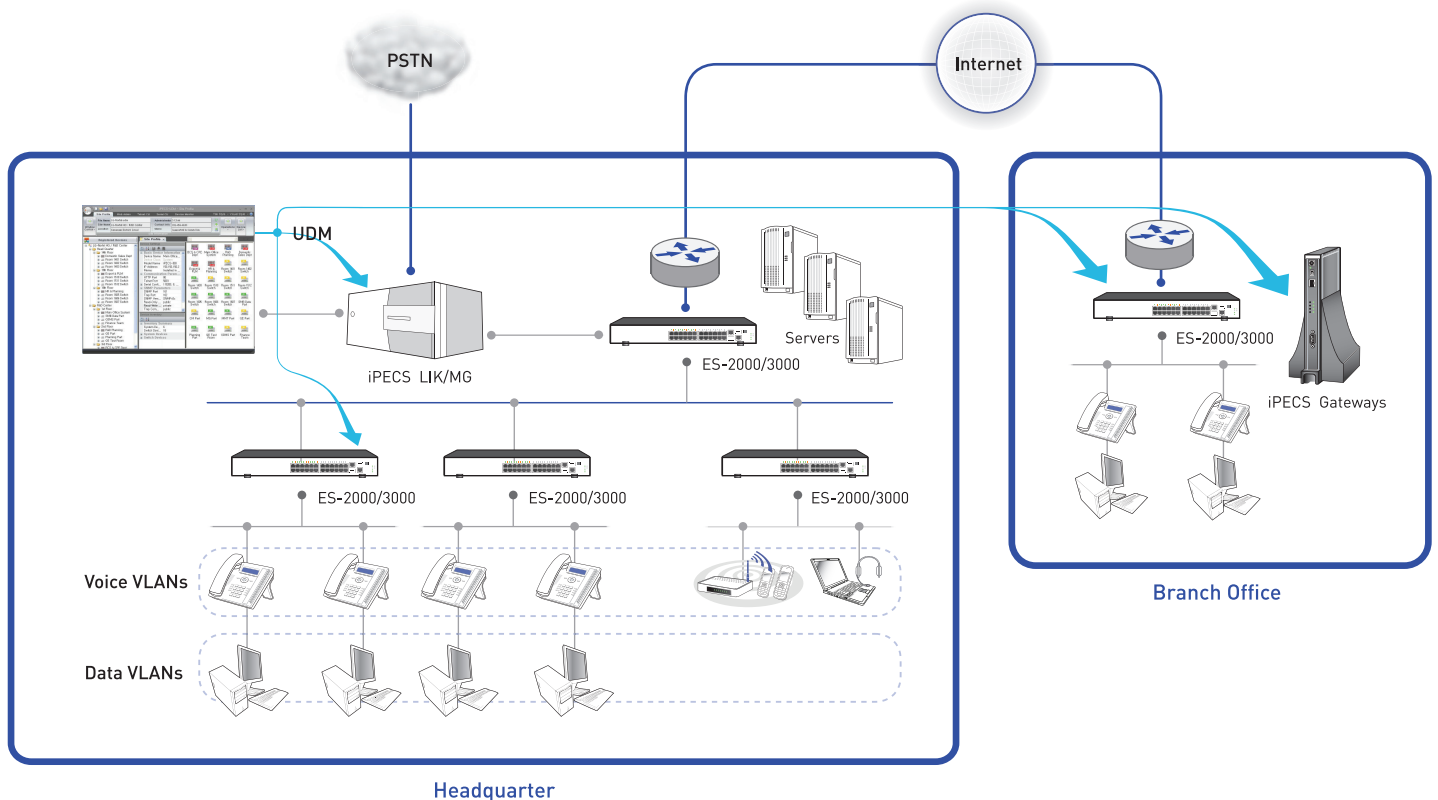
Feature Specifications

List	Feature	Specifications	ES-2000 series
L2 Switching	Spanning Tree Protocols	802.1d : Spanning tree protocol (STP)	Yes
		802.1w : Rapid Spanning Tree Protocol (RSTP)	Yes
	Link Aggregation (802.3ad)	Max number of groups	12
		Max number of members per group	8
		Source MAC based Load balance, Destination MAC based Load balance	Yes
	VLAN	VLAN IDs	4,096
		Max Number of active VLANs per Switch	128
		Port based VLAN	Yes
	LLDP	Link Layer Discovery Protocol (802.1ab)	Yes
	IGMP Snooping	Snoop IGMP packets per VLAN	Yes
		Max Number of multicast groups	128
		IGMP Snooping V1, 2, 3, Join/Leave, Quierer	Yes
Traffic Control	QoS	QoS on L3 using TOS field of IP packet header	Yes
		DSCP to 802.1p mapping	Yes
		QoS on L2 layer using TCI field of VLAN header	Yes
		Strict Priority Queuing	Yes
		Weighted Round Robin Queuing	Yes
		Voice VLAN / Auto QoS	Yes
	ACL	L2/L3/L4 based ACL (Max number of ACL)	Yes (512)
	Flow Control	Full/Half Duplex, Back pressure for half duplex	Yes
	Rate Limiting / Shaping	Port/IP based, all traffic by bps	Yes
		MAC based, all traffic by bps	Yes
	Storm Control	Broadcast - packet rate control	Yes
		Multicast - packet rate control	Yes
Security	Authentication	RADIUS / TACACS+ Authentication and Accounting	Yes
		Port based Authentication	Yes
		MAC limitation per Port	Yes
		MAC based port security (Static/Dynamic)	Yes
Management	Access (Command Interface)	HTTP, HTTPS	Yes
		SNMP v1/v2c/v3, Trap (RFC 1215)	Yes
	MIB	TCP/IP-based internets (RFC1213)	Yes
		RMON v1/2 (RFC2819/RFC4502)	Yes
	DHCP	DHCP Client	Yes
	File Transfer	FTP client	Yes
		TFTP client	Yes
	Port Mirroring	Received traffic	Yes
		Transmit traffic	Yes
		Received and Transmit traffic	Yes
		N to 1 Mirror	Yes
	Network Time	SNTP	Yes
	Backup	Configuration backup / restore	Yes
	Firmware Upgrade	Firmware backup / restore / upgrade	Yes
		Dual firmware images	Yes
	IP Clustering	IP Clustering up to 36 switches	Yes

Technical Specifications

List	Detailed information	ES-2026	ES-2026P	ES-2024G	ES-2024GP
Performance	Switching Fabric Capacity (Gbps)	8.8	8.8	48	48
	Packet Forwarding Throughput (Mpps)	6.6Mpps	6.6Mpps	35.7Mpps	35.7Mpps
	Flash Memory	16M	16M	16M	16M
	DRAM	128M	128M	128M	128M
	MAC Address Capacity	8K	8K	8K	8K
	MTU / Jumbo Frames support	10K	10K	10K	10K
	Auto-negotiation, Auto-MDI/MDIX	Yes	Yes	Yes	Yes
	Reset button (rear panel)	Yes	Yes	Yes	Yes
	MTBF (Hours)	560,000	150,000	158,000	146,000
Ports	Type of Service ports	10/100Base-TX	10/100Base-TX	10/100/1000Base-T	10/100/1000Base-T
	10/100Base-T Ports per Unit	24	24	-	-
	10/100/1000Base-T Ports per Unit	-	-	24	24
	Type of Built-in Gigabit uplink ports	2 pair combo RJ45/SFP	2 pair combo RJ45/SFP	4 shared SFP	4 shared SFP
	Types of GBIC and SFP support	SFP (SX, LX, LH, FX)	SFP (SX, LX, LH, FX)	SFP (SX, LX, LH, FX)	SFP (SX, LX, LH, FX)
Management	Management Console ports (Connector)	RJ45	RJ45	RJ45	RJ45
Power Over Ethernet	POE Support on all ports based on 802.3af	N/A	Yes	N/A	Yes
	POE+ support based on 802.3at	N/A	Yes (port 1~6)	N/A	Yes (port 1~6)
	POE Power Indication and safety	N/A	Yes	N/A	Yes
	Auto disable on the excess of total power	N/A	Yes	N/A	Yes
	Dynamic Power Allocation	N/A	Yes	N/A	Yes
	POE Power Budge	N/A	185W	N/A	185W
Dimensions	19" Rack Mount	Yes	Yes	Yes	Yes
	Height (mm)	44	44	44	44
	Width (mm)	440	440	440	440
	Depth (mm)	210	280	210	280
	Weight (Kg)	2.2	4.3	2.3	4.4
Power	100 ~ 240 VAC, 50/60Hz, 3Pin	Yes	Yes	Yes	Yes
	Maximum Input Power (Watts)	17	240	30	240
	Max power consumption (Watts)	17	245	23	252
Environmental	Operating Temperature (°C)	0 to 50 °C	0 to 50 °C	0 to 50 °C	0 to 50 °C
	Storage Temperature (°C)	-40 to 70 °C	-40 to 70 °C	-40 to 70 °C	-40 to 70 °C
	Operating Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	Storage Humidity (non-condensing)	10% to 90%	10% to 90%	10% to 90%	10% to 90%
	Operating Altitude (Meters)	4000m	4000m	4000m	4000m
Certifications	EMC Compliance - FCC class A, CE	Yes	Yes	Yes	Yes
	Electromagnetic Immunity	Yes	Yes	Yes	Yes
	Safety Compliance - cUL	Yes	Yes	Yes	Yes
	Austrailia (C-Tick)	Yes	Yes	Yes	Yes
	Korea (KCC)	Yes	Yes	Yes	Yes
Environment Regulation Compliance	WEEE	Yes	Yes	Yes	Yes
	RoHS	Yes	Yes	Yes	Yes
	PFOS	Yes	Yes	Yes	Yes

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