HEADQUARTERS TO STORE

polling ECRs and POS stations
for business intelligence data

LAVA
HQ-ST Plus Link

MORE **FLEXIBLE** THAN FTP
MORE **SECURE** THAN A VPN
MORE **COST-EFFECTIVE** THAN STATIC IPS

LAVA

WHY STORE POLLING?

Electronic Cash Registers (ECRs) and Point-of-Sale (POS) stations have an under-utilized capability: they can present their transaction information digitally, giving transaction details and summaries. This data becomes increasingly important as businesses grow and develop multiple locations. Successful growth depends on coordinating and analyzing business intelligence from stores to understand the big picture of a business.

The LAVA HQ-ST Plus Link adds polling capabilities to your stores, and does so more easily and cost-effectively than any other solution. With the highest levels of availability and security, and the simplest installation of any IP-enabling hardware (or IP-enabled ECR or POS station, for that matter), the HQ-ST Plus is unique in the market.

BASIC POLLING

LAVA HQ-ST Plus Links IP-enable your serial-port equipped ECRs and POS stations, making remote polling and uploading pricing information a snap. Operation is transparent to both the store hardware and to the polling software.

SECURITY

This is the most secure link on the market. Because no store-side router port mapping is performed, there is no "hole" created in the store's firewall. At the head office, the HQ unit needs just two port mappings, regardless of the number of store units connecting to it. All needs for network skill are centralized: an enormous benefit and cost savings when deploying devices to geographically wide-spread stores.

The LAVA HQ-ST Plus Link also offers enhanced security over conventional serial device servers by having only authenticated connections between the store and the head office.

MANAGEMENT AND MONITORING

The LAVA HQ-ST Plus Link provides another critical benefit to chain store and restaurant operators: monitoring and management of remote ECRs and POS stations.

The LAVA HQ-ST Link also provides status monitoring that lets you instantly know when a store's ST Plus unit is on-line or off-line. If a store is off line during store hours, if a network connection comes on-line when it shouldn't, if an unauthorized store unit attempts to access the HQ Plus unit, and so on, you'll know!

DEPLOYMENTS OF VIRTUALLY ANY SIZE

The LAVA HQ-ST Plus Link scales well to suit the needs of virtually any size business.

UNPARALLELED EASE OF INSTALLATION

This is where the LAVA HQ-ST Plus Link really shines. It deploys with no need to configure the port mapping parameters of the store-side router.

This is not the case with any IP-based ECR or serial device server on the market.

The savings that result from this feature are huge: HQ-ST Plus Links can be deployed with little networking expertise, and installers have no need to know anything about the router or ISP used by the site! One company estimates installation time will be reduced by 2½ hours per store.

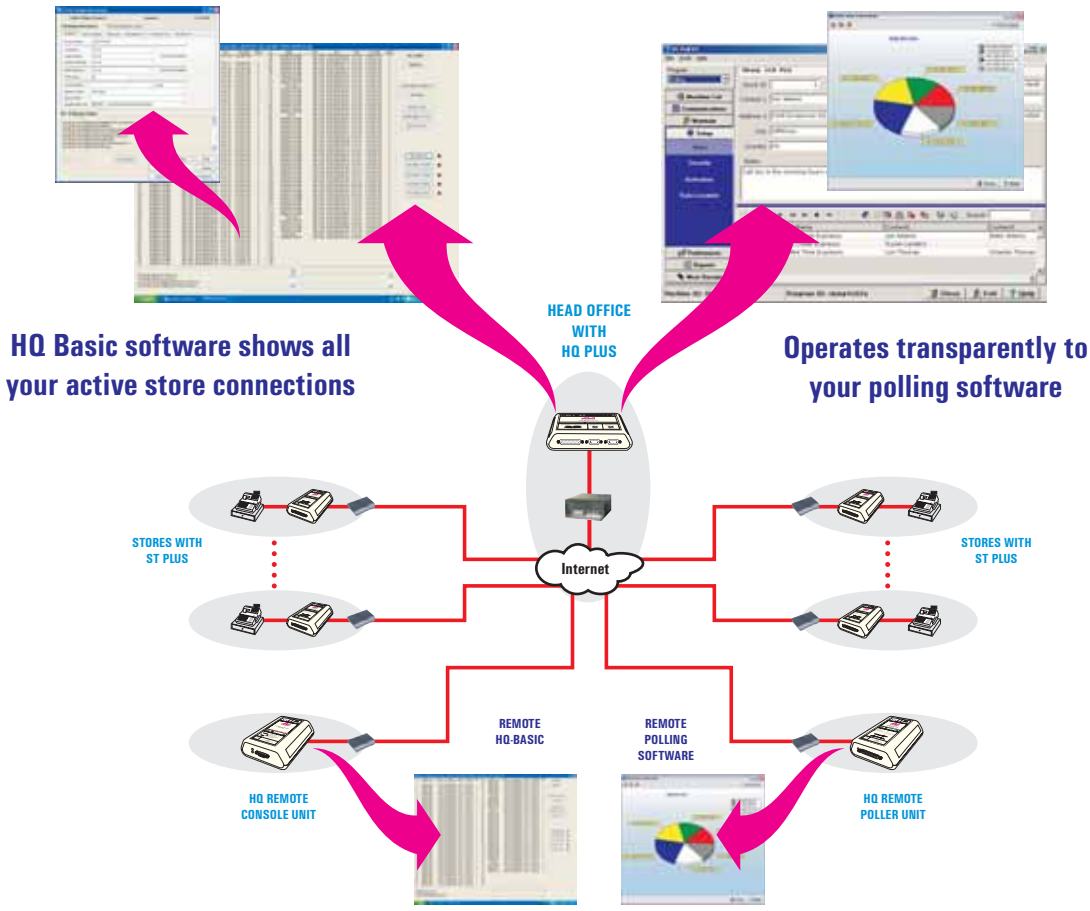
HARDWARE EXTENSIONS

HQ REMOTE CONSOLE

This unit allows a user—or a dealer supporting a user—to create a head office away from the head office. The HQ Remote Console unit makes it possible to redirect the console data being received at the head office to another IP address, for display in an instance of the LAVA HQ Basic software interface running at that location. All management capabilities of the head office are available through the remote console, but the "true" head office remains in ultimate executive control.

HQ REMOTE POLLER

This unit allows a user—or again, a dealer supporting a user—to remotely poll stores from any IP location outside the head office, through the actual HQ Plus unit operating at the head office. The HQ Remote Poller provides the ultimate assurance that the full HQ Plus Link is operating, and is ideal for verifying the success of a store installation when at the store itself. Who wants to come back later to troubleshoot?



LAVA HQ-ST PLUS BENEFITS

COST EFFECTIVE

- minimal to no installation time
- no static IP address needed at store
- no modem, phone line, long distance costs

EASY TO USE

- no router configuration at store
- no need for any access to store router
- transparent to existing ECRs, POS stations, routers, LANs, computers
- transparent to existing polling applications

ROBUST

- no Windows OS needed at store or head office
- ST units will restart and reconnect to HQ automatically

FLEXIBLE

- store ECRs can be remotely managed (with new pricing updates, for example)
- ST units can be set up using a number of methods:
  - through the ST unit serial port
  - using HTTP at store
  - at head office
  - using a set-up server

RELIABLE

- no need to have a phone line available for polling access

SCALABLE

- works regardless of number of remote locations
- ST units' firmware remotely upgradable

FAST

- IP connection faster than modem dialing

CLEAR FEEDBACK

- HQ-Basic shows all live connections; which stores are up, down

SECURE

- HQ-ST authentication codes
- no router holes (port mappings) at store
- HQ units only talk to ST units
- ST units only talk to HQ units
- resistant to denial-of-service attacks
- head office network is not opened to store (as in the case of a VPN)
- store unit can be activated to make store tampering impossible

PRODUCT SUMMARY

SERIAL DEVICE SERVERS

Extend serial connections anywhere. Access and control serial ports across a LAN, WAN, or the Internet. LAVA Ether-Serial Link ports are native COM ports; applications 'see' them just as if they were internal. One, two, four, eight & sixteen port versions available.

ESL 1-DB9-232	Single RS-232 IP-enabled 9-pin serial port
ESL 1-RJ45-232	Single RS-232 IP-enabled 10-pin RJ-45 serial port, power on pin 10
ESL 1-DB9-422	Single RS-422 IP-enabled 9-pin female serial port
ESL 2-DB9-232	Dual RS-232 IP-enabled 9-pin serial ports
ESL 2-RJ45-232	Dual RS-232 IP-enabled 10-pin RJ-45 serial ports, power on pin 10
ESL 2-DB9-422	Dual RS-422 IP-enabled 9-pin female serial ports
ESL 4-DB9-232	Four RS-232 IP-enabled 9-pin serial ports
ESL 4-RJ45-232	Four RS-232 IP-enabled 10-pin RJ-45 serial ports, power on pin 10
ESL 4-DB9-232-CBL	Four RS-232 IP-enabled 9-pin serial ports, fanout cable
ESL 5-DB9-232-EMB	Five RS-232 IP-enabled 9-pin serial ports, for embedded applications
ESL 8-DB9-232-CBL	Eight RS-232 IP-enabled 9-pin serial ports, fanout cables
ESL 8-RJ45-232	Eight RS-232 IP-enabled 10-pin RJ-45 serial ports, power on pin 10
ESL 16-DB9-232	Sixteen RS-232 IP-enabled 9-pin serial ports, fanout cables

SERIAL, PARALLEL, COMBO PCI CARDS

Serial	
SSerial-PCI	Single 9-pin serial, 16550 UART
SSerial-PCI/LP	Single 25-pin serial, 16550 UART, low profile
LavaPort-650	Single 9-pin serial, 16650 UART, 460.8 kbps
RS422 SS-PCI	Single 9-pin serial, 16550 UART, RS-422 pinout
DSerial-PCI	Dual 9-pin serial, 16550 UARTs
DSerial-PCI Powered	Dual 9-pin serial, 16550 UARTs, 5 & 12 VDC powered serial ports
DSerial-PCI 3.3V	Dual 9-pin serial, 16550 UARTs, for 3.3 volt PCI
DSerial-PCI/LP	Dual 9-pin serial, 16550 UARTs, low profile w. dual fanout cable
LavaPort-PCI	Dual 9-pin serial, 16650 UARTs, 460.8 kbps
Quattro-PCI	Four-port 9-pin serial, 16550 UARTs
Quattro-PCI Powered	Four-port 9-pin serial, 16550 UARTs, 5 & 12 VDC powered serial ports
Quattro-PCI 3.3V	Four-port 9-pin serial, 16550 UARTs, for 3.3 volt
Quattro-PCI/LP	Four-port 9-pin serial, 16550 UARTs, low profile w. quad fanout cable
LavaPort-Quad	Four-port 9-pin serial, 16650 UARTs, 460.8 kbps
Octopus-550	Eight-port 9-pin serial, 16550 UARTs w. 8 port cable
Parallel	
Parallel-PCI	Single EPP parallel
Parallel-PCI 3.3V	Single EPP parallel, for 3.3 volt
Parallel-PCI/LP	Single EPP parallel, low profile
Dual Parallel-PCI	Dual EPP parallel
Combo	
SP-PCI	Single 9-pin serial, 16550 UART + single EPP parallel
2SP-PCI	Dual serial, 16550 UARTs + single EPP parallel
LavaPort-Plus	Dual serial, 16650 UARTs + single EPP parallel
Other	
8255-PIO	8255 PIO interface card

HQ-ST LINKS

LAVA HQ-ST Links connect store locations to a head office to IP-enable data collection and device management.

HQ	RS-232 serial-to-IP connection to ST units, 1-DB9F-232; head office polls remote locations
ST	RS-232 serial-to-IP connection to HQ unit, 1-DB25F-232; remote location responds to head office polling
HQ Plus	RS-232 serial-to-IP connection to ST units (126/30/8), 1-DB9F-232 & 1-DB9F-232 & 1-DB9M-232; head office receives connections from ST Plus units and polls remote locations
ST Plus	RS-232 serial-to-IP connection to HQ unit, 1-DB25F-232; remote location connects to head office and enables polling

SERIAL PORT SPLITTER

LAVA Serial Port Splitter arbitrates two serial data streams attached to one serial input. Ideal for attaching two POS peripherals to a POS device with only 1 free port.

Serial Splitter 2-RJ45-232	Dual RS-232 inputs to one RS-232 output; RJ-45 connections, power supply included

PAYMENT TERMINAL SERVERS W. SSL

LAVA PayLink-IP enables legacy/dial-up credit/debit payment terminals with a secure Ethernet connection (128-bit SSL encryption). RS-232 version to replace modems for terminals using external modems; Dial version for terminals with internal dial-up modems.

PayLink-IP/232	Single RS-232 IP-enabled 9-pin port w. SSL Ver. 3.0
PayLink-IP/Dial	Single IP-enabled RJ-11 POTS port w. SSL Ver. 3.0

SERIAL, PARALLEL, COMBO ISA CARDS

Serial	
SSerial-550	Single 25-pin serial, Com 1-4, 16550 UART, IRQ 3/4/5/7
LavaPort-ISA	Single 9-pin serial, Com 1-4, 16650 UART, IRQ 2/3/4/5/10/11/12/15, 460.8 kbps capable
DSerial-550	Dual 9-pin serial, Com 1-4, 16550 UARTs, IRQ 2/3/4/5/7/10/11/12/15
RS422-550	Dual 9-pin serial, 16550 UARTs, RS-422 pinouts
Parallel	
Par. Bi-directional	Single bi-directional parallel port, LPT 1/2/3, IRQ 5/7
Combo	
2SP-550	Dual 9-pin serial, Com 1-4, 16550 UARTs + single bi-

Quiznos

"To date we have over 2000 of our 5000 stores polling using LAVA's system and are migrating the remainder at a rate of 30 stores per day. I have to say it is a pleasure working with LAVA. I recommend them to any franchisor considering implementing IP-based polling."
— Jane Govier, Manager, Store Operations and Technology, Quiznos

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