Release Notes: MatchPort-AR-V1.1.0.0-R7

Reference: MatchPort-AR-V1.0.0.2-R1

Release date: September 17, 2008

Status: Released

Released files:
matchport_ar_1_1_0_0_R7.romz (firmware)
MatchPort-AR.html (CLI documentation)

Product Changes

Web pages are now integrated into the single firmware file. When upgrading, files on the file system are erased. Save any of your own files off-device before upgrading. Configuration settings are retained; where necessary, some configuration items are converted to the newer version automatically. If you wish to go back to earlier firmware, use Device Installer serial recovery and erase all Flash, the configuration settings will be lost.

The CLI has been reorganized to better match the Web Manager organization. See the enclosed MatchPort-AR.html for documentation.

XML has been reorganized so that XML export shows all of the XML import options. XML import and export now allow selection by line number as well as group.

Implemented criteria for sending TCP data in accordance with RFC 1122 paragraph 4.2.3.4.

Increased the rate that TCP timeouts are checked, to reduce the timeout granularity from 200 msec down to 10 msec.

Implemented TCP configuration options. With the Web Manager, go to the Protocol Stack page and select TCP. For "high performance" behavior, set Ack Limit to 1 packet and set Send Data to Expedited. This is "non-standard" TCP behavior, but expected by customers with performance sensitive applications and matches behavior of legacy products.

Tunnel Packing Mode now works with all of the protocol selections.

Tunnel Disconnect Mode now allows multiple simultaneous options.

Tunnel Serial Settings now contains a DTR configurable. Removed Tunnel Serial Settings "Read Timeout" and "Wait Read Timeout".

Introduced "Terminal" and "Host" configurables and telnet IAC support.

When uploading a firmware image, accepts both .rom.gz and .romz extensions.

Added IP Multicast Time to Live configurable.

Added access to serial lines via the file system via reserved names Serial_1, Serial_2, and so on.

Added support for IP reassembly.

Modified CLI command "reload factory defaults" so it also reboots the device; this keeps the configuration data in synch.

Upgrades hostname definition from RFC 608 to RFC 1123, which allows the first character to be numeric and expands the maximum length to 63.

LPD daemon now defers port 515 listening and spawning of worker tasks till at least one line selects LPD as protocol. If LPD was being used and subsequently unselected on all lines, these all stay active till reboot.

Alphabetized the web manager index for ease of use.

User is now allowed to export all configuration data by checking "Export secrets" on the web manager. Also adds cautionary notes.

Web manager now works with Google Chrome.

Modem emulation now has access to the CLI (via "ATD 0") even while it has an active network connection.

SDK Changes

Added tools to "drill down" into managed memory usage and detect leaks.

Makes SNMP_ENTERPRISE_NUMBER and SNMP_DOTTED_SYS_OBJECT_ID_SUFFIX available.

Removed deprecated APIs.

Removed non-standard TCP socket options: TCP_TUNNELPACKINGENABLE, TCP_TUNNELPACKINGTIMEOUT, TCP_TUNNELPACKINGBYTES, and TCP_TUNNELPACKINGSENDNOW.

Created two new accessor functions, ReliableTransportSingleThreadedGet() and ReliableTransportMultiThreadedGet(), and modified the SDK samples to use these functions to replace direct access to the BSDTransport and BSDTransportForSSH global variables.

Removed support for XML configuration group "firmware". Added item "firmware version" to XML configuration group "device".

XML exports instance on group "cp group" item "cp", eliminating value "cp". XML imports both the instance based form as well as the legacy form.

Product Bug fixes

Fixed problems in elapsed time computation.

Bug 4064: There is no longer any limit to the size of a file that may be uploaded via the web browser.

Bug 6302: Long tags no longer throw XML parser into infinite loop.

Bug 6354: Now can set protocol ppp through XML while command mode is on.

Bug 6363: XML Engine now prints a warning message if connect tunnel cp group does not exist.

Bug 6576 and 6637: All printable characters are now allowed in passwords. However for XML, the characters <>'&" must be encoded as < > ' & " respectively.

Escalation C-070920-99571, bug 6704: Added configurable "Send Data" on protocol TCP. In combination with "Ack Limit", this covers real time performance for both directions of flow.

Bug 6754: After changing line protocol from tunnel, tunnel now stops listening.

Bug 6786: Fixes Internet Explorer problem rendering "Select Line:".

Bug 6802: After disabling line, tunnel now stops listening.

Bug 7128: XML now imports the /> closing tag correctly.

Bug 7138: Holding pin 3 to ground now restores factory defaults correctly.

Bug 7149: Tunnel serial input data will flow off after filling some buffers when there is not yet a network connection.

Escalation C-080229-105445, bug 7216: Fixes resource problem after four successful SSH host connections.

Bug 7237: Added interface "state" to status on CLI and web.

Bug 7259: Ethernet now performs link negotiation only when the speed is "auto". Here is the table of allowed combinations of PHY settings:

Duplex\Speed	auto	10	100
auto	auto(10/100)(H/F)	Not allowed	Not allowed
half	auto(10/100)(H)	10 H	100 H
full	Not allowed	10 F	100 F

Bug 7276: Fixes serial and tunnel control of built-in CP groups for status signals and hardware device control.

Bug 7282: Fixes SNMP Get of an item in a table.

Escalation C-080319-106174, bug 7346: SSH access is now faster.

Bug 7325: Web manager now works with the Safari browser.

Bug 7326: Web manager now works with an iPhone.

Bug 7358: Eliminates erroneous "break".

Bug 7379: Fixes XML import line enable defaults.

Bug 7384: Fixes problem with an enabled CP group getting disabled after XML import even though the XML says to enable it.

Bug 7391: Line no longer hangs after changing status from disabled to enabled.

Bug 7428: Adds 5 second penalty if a CLI password does not match.

Bug 7432: SSH now produces the full size public key in all cases.

Bugs 7515, 7534: Fixed problem where XML import occasionally failed.

Bug 7567: Fixes [no] echo when connected from serial to the CLI.

Bug 7594: Deleting "admin" from HTTP made the web inaccessible. Now when the last user under a URI is deleted, the authorization type is set to "none".

Bug 7596: Web pages no longer fail loading with Firefox 3.0.

Bug 7603: Changed the SNMP sysObjectID from 991 to 244.

Escalation C-080627-109986, bug 7616: Now attempts DHCP for 126 seconds before failover to AutoIP.

Escalation C-080702-110080, bug 7619: We now allow UDP receive from any address, any port regardless of the transmit address and port settings.

Bug 7630: CLI prompt to telnet no longer gets delayed.

Bug 7642: Hostname no longer requires reboot to update with XML.

Escalation C-080715-110471, bug 7648: Fixes problem upgrading firmware via an https web connection.

Bug 7656: SSL tunnel no longer sometimes holds data till data flows in opposite direction.

Bug 7687: User interface now enforces the correct maximum length for SSH usernames and passwords.

Bug 7705: ARP cache entries are now aged correctly. In rare cases depending on network traffic, it had been possible to lose an ARP entry.

Bug 7721: Firmware downgrade results in image partition size error. Changed the error message in this case to say, "Use Device Installer serial recovery to downgrade firmware".

Bug 7727: Fixed XML import failure with valid SSH Client User.

Bug 7742: Accessing CLI with Serial String no longer delays execution of SDK code. If the customer needs to inhibit the SDK code in an emergency, the back door still works that way.

Bug 7743: All four "choices" of WLAN Profile are now set during a reload factory defaults.

Bugs 7752 and 7758: Resolved resource problems in SSL.

Bug 7754: After creating an SSL self-signed DSA certificate, it now correctly exports as DSA.

Bug 7768: Fixes CLI kill with looped back port.

Bug 7772: Fixed a memory corruption problem.

Bug 7790: setting tunnel disconnect timeout in IE no longer results in a problem.

Bug 7793: XML now emits the configured (rather than current) HTTP server state in the XCR.

Bug 7796: On platforms with no Real Time Clock (including MatchPort), skip the date validation of certificates.

Bug 7800: Fixes some broken web links in the web help.

SDK Bug fixes

Reworked selectsocket() to eliminate 100 msec latency problems.

Bug 7341: Changing the start of the file system could be problematic when loading a new firmware image. Now the SDK user declares a firmware image partition size from which the file system size is determined. When Evolution loads a new firmware image, it checks the image partition size first; if the partition size is changing, it clears the file system but retains the configuration data.

Bug 7664: File open call fopen() now follows conventions.

Bug 7810: EvolutionIsUpgrading now returns false after an upgrade fails.

Known bugs

Configuring a serial line for RS485 requires the CP Manager settings to be applied before the RS485 mode is set in the line menu. If the line RS485 selection is applied before the CP Manage is configured with a CP, the MatchPort will require a reboot for the settings to take effect.