Touchstone®
Telephony Firmware

Release 6.1.95

Release Notes and
Letter of Operational
Considerations

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1 Objectives of This Document

1.1 ARRIS Commitment

ARRIS is committed to developing high quality, value-added products and services to the Multiple System Operator (MSO). ARRIS continually strives toward meeting our customer's needs with solutions that will help achieve their business objectives.

1.2 Purpose and Scope of This Document

This document describes the value-added features and anomaly resolutions associated with this release. It also informs operators of known Operational Considerations associated with this product release that have been identified either through ARRIS' testing or field operations.

1.3 Product Identification and Purpose of Release

Described in this document is the Touchstone Telephony Firmware. This Touchstone Firmware release is intended for ARRIS manufactured E-MTAs. Information pertaining to support for this specific release is detailed in the table below. **Not all configurations and hardware variants are supported with each release.**

Product Description	**Maintenance Supplemental Release 7 – TS6.1.95**
Validation Sequence	• **Maintenance Supplemental Release (MSUP)**
Supported DOCSIS Standard(s)	• **DOCSIS® 2.0** • **Euro-DOCSIS® 2.0**
Supported Signaling Protocol(s)	• **Network-Based Call Signaling (NCS)** • **Session Initiation Protocol (SIP)**
Supported PacketCable Standards	• **PacketCable® 1.0** • **Euro-PacketCable® 1.0**
Firmware Filename	**TS060195_032610**
SysDescriptor	**SW_REV: 6.1.95**
PacketACE	**Version 12.10 or later release**

1.4 Firmware Filename Variant Information

The table below presents the filename extensions used on Touchstone products. **Not all variants of a load are created for a release.**

FILENAME EXTENSION	PURPOSE OF EXTENSION
_NA.img	North America signed firmware image
_EU.img	European signed firmware image
TELNET_ON	Loads with Telnet access permanently enabled
MODEL_4_5	Supports TM40X models (TM402), TM50X models (TM501, TM502 and TM504), and TP40X models (TP402 and TP404)
MODEL_6	Supports TM60X models (TM601, TM602, TM604, DTM602)
SIP	Session Initiation Protocol (SIP) firmware image
EURO	Supports Euro-PacketCable including Euro-Provisioning Changes
D11PLUS	Features to easily transition from DOCSIS 1.0+ to DOCSIS 1.1
MODEL_5_WR	Supports the WTM552 wireless router module
MODEL_6_WR	Supports the WTM652 wireless router module
MODEL_5_ML	Supports TM508 and TM512 Multi-line E-MTAs
MODEL_6_ML	Supports TM608
WDOCSIS	Supports WM550, WM502, WM602 wireless DOCSIS modules
F741	**ONLY** looks at a DS frequency of 741 MHz
CM550	Supports CM550 Cable Modems

1.5 Filename Information for MIB Objects

The table below presents the names for the files used to distribute the MIB objects for a Touchstone release. **Not all versions are created for a release.**

FILENAME	DOCSIS Standard	Signaling Protocol	PacketCable Standard
NCS MIBS	DOCSIS	NCS	PacketCable
EURO MIBS & NCS MIBS	DOCSIS	NCS	Euro-PacketCable

SIP MIBS	DOCSIS	SIP	PacketCable
SIP MIBS & EURO MIBS	DOCSIS	SIP	Euro-PacketCable
NCS MIBS	Euro-DOCSIS	NCS	PacketCable
NCS MIBS & EURO MIBS	Euro-DOCSIS	NCS	Euro-PacketCable
SIP MIBS	Euro-DOCSIS	SIP	PacketCable
SIP MIBS & EURO MIBS	Euro-DOCSIS	SIP	Euro-PacketCable

1.6 Minimum Firmware Baseline for Hardware

The table below shows the minimum released firmware needed to operate a specific model of hardware.

Hardware Model	Firmware Image
TM401X	TS040431_041805 (TS4.4.32)
TM402X	TS040122_071504 (TS4.1.22)
TP40X	TS040435_042805 (TS4.4.35)
TM501X	TS040552_121405 (TS4.5.52)
TM502A/B/G	TS040514_071305 (TS4.5.14)
TM502C	TS050060_021307 (TS5.0.60)
TM502H	TS050014_071306 (TS5.0.14)
TM504G	TS050111_030207 (TS5.1.11)
TM504H	TS050117_033007 (TS5.1.17)
TM508A	TS040628_042706 (TS4.6.28)
TM512A	TS040628_042706 (TS4.6.28)
WTM552A/B/G/H	TS050050B_111406 (TS5.0.50B)
WM602 / -2	TS060147_012909 (TS6.1.47)
WM550 / -2	TS050237_111207 (TS5.2.37)
TM602X – Rev 1	TS050222_081607 (TS5.2.22)
TM602G – Rev 2	TS060121_071108 (TS6.1.21)

TM601X	TS060121_071108 (TS6.1.21)
TM604G	TS060121_071108 (TS6.1.21)
TM608G	TS060121_071108 (TS6.1.21)
DTM602G	TS060121_071108 (TS6.1.21)
WTM652	TS060160_052109 (TS6.1.60)
TM602S	TS060188_012810 (TS6.1.88)

1.7 Product Documentation

Other relevant information is included in the following documentation:

Product
Touchstone® Telephony Feature Guide (TS6.1)
Touchstone® Telephony Management Guide (TS6.1)
Touchstone® Telephony Provisioning Guide (TS6.1)
Touchstone® Telephony Troubleshooting Guide (TS6.1)

2 Release Notes

The Release Notes describe the New Product Features introduced in the Touchstone Firmware for the ARRIS Touchstone Telephony Modem(s) and the Touchstone Telephony Port(s). Included in the Resolved Product Deficiencies section is a list of resolved operational considerations noted in previous releases.

2.1 New Product Features

Added in TS6.1.95

Remote RTCPxR MIB Setting Now Persistent

Included in this release of firmware is the ability via SNMP to set the arrisMtaDevVqmEnableRemote MIB and the information being stored in NVRAM. This makes the setting of this MIB persistent over resets of the E-MTA.

SIP: Geo Redundancy with SIP Penalty Box

In this release of firmware the SIP Penalty Box feature has been extended to also act on failure of non-REGISTER messages. Any failure of these messages will now also lead to assignment of the SIP proxy to the penalty box. This will cause the MTA to re-register to the secondary SIP proxy instead of starting the initial registration when the primary SIP proxy is down. Also, when the penalty box timer expires and the failed SIP Proxy is released from the penalty box, it will trigger the E-MTA to re-register.

SIP: Forking Enhancements

Enhancements have been added to the SIP Forking feature for this release so that when a call is placed and fork responses are received, the E-MTA will always use the SDP from the last 1xx response received. If the 200 OK message response contains a new SDP, then that SDP will be used. All previous fork responses will be discarded once the 200 OK message is received.

MTA Configuration File TFTP Override

Included in this release of firmware is a feature to change the location in which the MTA will TFTP its configuration file. The new MIB, arrisCmDevTftpMtaIpOverride, when added to the CM configuration file will go to a specified location to obtain the MTA configuration file regardless of information in the DHCP offer.

SIP: DNS Caching

This release of firmware will now store and re-use the DNS information if the DNS server is unavailable. This robustness already existed for NCS and is now added for SIP releases.

WRM Configuration File Name based on WRM MAC Address

Included in this release of firmware is the new MIB, arrisCmDevWrmProvFileNameMacEnable, which generates the value of the arrisCmDevWrmProvFileName based on WRM MAC address. When it is enabled in CM configuration file, this value specifies the name of WRM provisioning file.

ARRIS Advance Webpage Addition of Log Buffer

The Advance webpage now includes a print out of the log buffer command. This is to help facilitate troubleshooting in instances where telnet access is not available.

Added in TS6.1.88

TM602S/CE Support

Included in this release of firmware is support for an additional Touchstone hardware model variant. The TM602S is a model 6 version of the E-MTA which provides an on/off power switch. The hardware version on the webpage and via the CLI will note if the model is a TM602S.

Clear CPE list Feature

In this firmware release the CPE list will be cleared when the E-MTA loses link on all LAN interfaces. E-MTA will only remove dynamically detected CPEs and not eSAFE devices or pre-provisioned CPEs.

Added in TS6.1.77A

No new features were added to this release.

Added in TS6.1.77

IPv6 MDD Override Functionality

This release of firmware includes the ability to override the IP mode contained within the MDD message from the CMTS. This information is stored in NVRAM and is persistent over resets of the E-MTA. The new MIB Object, MddIpModeOverride, will control the IP mode used by the E-MTA. Extreme caution should be used when setting this MIB object. If an E-MTA is set to IPv6 mode it will only register in that mode.

Added in TS6.1.72

Unique Configuration Files for RIP

When using the RIP protocol, information containing the unique LAN gateway IP address is required in the CM configuration file. This makes the RIP feature impossible to enable on provisioning systems that cannot support a unique configuration file per modem. This release of firmware supports a feature to allow a unique text file on another

server to be accessed, that will provide the provisioning for the unique RIP MIB objects. This allows operators to use a common CM configuration file but still utilize the RIP feature.

Please see the Touchstone Firmware Features Issue 4.1 for additional information.

Added in TS6.1.67A

Transmit and Receive Gain Control Setting per Line

Included in this release of firmware is the ability via SNMP to set the transmit (TX) and receive (RX) gain per line. This information is stored in NVRAM and is persistent over resets of the E-MTA. The new MIB Objects for this functionality are arrisMtaDevEndPntGainControlTxVoice and arrisMtaDevEndPntGainControlRxVoice.

MTA Security Ticket Timeout

The E-MTA now has a provisionable capability to re-initialize the MTA security tickets if an MTA provisioning sequence expires and starts over. This is accomplished by setting the feature switch 'resetMtaTicketsOnProvisioningTimerExpiry' in the MIB arrisCmDevModemFeatureSwitch2.

UGS Flow Packet Discard

Some customers may choose to play audio calls over the E-MTA's Ethernet link but still use guaranteed UGS service flows to deliver the packet stream over the RF connection. In this case, it is appropriate to keep the UGS Service flow queue short so no delays are introduced in the upstream. This is configured with MIB arrisCmDevUGSTxQueueSize.

Allow Detection of Bell Modem Protocol Data Tones

Certain networks may choose to use the older data modem protocols known as Bell modem, for example Bell 103 modulation. In order to detect the unique tone defined for Answering, the MIB arrisMtaDevDspHandleBellModemTone must be enabled.

IPV4 Load Variant

This firmware release provides a new load variant to only support IPV4. To identify these loads, an '.IPV4' had been added to the firmware file name as well as to the sysdescr field. Some loads are not released in this variant.

Added in TS6.1.60

WTM652 Support

Included in this release of firmware is support for an additional Touchstone hardware model. The WTM652 is a model 6 version of the Wireless E-MTA which will support WPS.

New Wireless Features

This firmware release supports the following features for both the WTM552 and WTM652 (except where explicitly noted):

- Configurable Power Level: The MIB object, arrisWrmDevWlanApPowerLevel, has been added to this release to support the ability to configure the wireless radio power level.
- Channel Auto Detect: The MIB object, arrisWrmDevWlanApConfigChannel, along with the CLI and WebGUI allow the user to change the default channel of 11 to 'Auto'. When placed in the 'Auto' mode, the WTM will look for the first wireless channel available for use to reduce possible interference from other devices.
- LAN/WLAN Bandwidth Limit: Several new MIB objects have been added to this release to allow the user the ability to configure the amount of bandwidth used by both the WAN and LAN interfaces. The MIB tree to access these specific MIB objects is called arrisWrmDevWlanQosConfig.
- LAN/WLAN Isolation: In order to prevent CPE to CPE traffic between WTM users, the MIB tree arrisWrmWlanApIsolation has been added in this release. Several MIB objects under this tree can be used by the operator to control traffic from CPE devices attached to the WTM.
- WiFi Protected Setup (WPS): The feature is only available on the WTM652 product. WPS is enabled via a pushbutton, PIN, or manual configuration.
- Multiple Service Set Identifier (SSID) Support: This release of firmware will now support two SSIDs from WTM.

CallerID Suppression

This release supports the ability to disable parts of the callerID display. Three new MIB objects have been added to support this new functionality. The MIB objects are detailed below:

- arrisMtaDevEndPntCIDEnable: Determines whether the callerID will be presented to the phone.
- arrisMtaDevEndPntCIDNameEnable: Determines if the individual name will be made available in the callerID information sent to phone.
- arrisMtaDevEndPntCIDDateTimeEnable: Determine if the date/time fields will be made available in the callerID information sent to phone.

Loop Reversal Control

This release supports the ability to help manage loop reversal interactions for NCS Call Servers. This feature will revert phones back from loop reversal at the end of a call for

call servers that do not support that signaling. The MIB object, arrisMtaDevEndPntLoopReversal sets up this management.

Call Waiting Repeat Indefinitely

This firmware release supports the ability to have the call waiting tone continuously played while the phone is off-hook. This feature can be enabled by using the MIB object arrisMtaDevEndPntCallWaitingRepeatSteady.

SIP: Restrict Incoming CODEC Offer

This firmware release supports a feature which allows the operator to restrict the acceptance of CODECs in the incoming INVITE to the list provisioned in sipCfgProvisionedCodecArray MIB. This feature is enabled by the feature switch, 0x00000001 restrictIncomingOffer, which is set in the sipCfgSipFeatureSwitch.

Added in TS6.1.57

SIP: BYE Delay for Called Party

This firmware release supports a new SIP feature that allows the MSO to set a bye delay time. This time is the amount of time a call will be maintained after the called party hangs up before the call is disconnected if the originator remains off-hook. If called party goes off-hook during this time interval, the timer will be cancelled and the call will remain connected. The MIB object to set the bye delay time is sipCfgPortCallByeDelay.

SIP: Disconnect Reorder Tone Delay

The ability to specify the time period for the E-MTA to delay the playing of the reorder tone is available in this release. This is the amount of time to wait after the BYE message has been received to tear down the call. The following MIB object is used to set that value: sipCfgDisconnectReorderToneDelay.

SIP: Support of INFO Method

In order for session information to be exchanged between the SIP Proxy Server and E-MTA, RFC2976 needs to be supported. This release of firmware supports that option which is the ability of the E-MTA to receive the INFO message and respond to that message.

Dual Mode Enhancement

In this release of firmware, the dual mode feature will now support a frequency change request and move to another annex. The feature is specifically triggered off of frequency change request from the RNG-RSP message, TLVs in the CM configuration file, and CLI command for tuning. This is feature is only supported on the TM601/DM and TM602B/DM hardware.

Enhancement to ifPhysAddr.16

Per the e-DOCSIS specification, when running in a provisioning mode other than full PacketCable this MIB object should return a value of zero. In this release to support provisioning systems deployed in the field, this behavior has been changed so the MIB object will now report the MTA MAC Address.

Slovenia Country Template

A new line card template for Slovenia is supported in this release. This template defines unique tones, tone levels, hookflash times, and ring cadences for this region. This template can be set using the ppCfgMtaCountryTemplate MIB.

Added in TS6.1.51D

No new features added in this release.

Added in TS6.1.51

SIP: SIP INFO Support for Hook Flash Reporting

This firmware release provides new SIP INFO support for hook flash reporting. To enable this feature, the sipCfgSipFeatureSwitch bit 0x00000020 must be added to the configuration file. When this bit is enabled the hook flash events are reported via a SIP INFO message with the following characteristics:

```
Content-Type: application/hook-flash

signal=hf
```

RFC 2833 DTMF End Event Duration

The MIB object, arrisMtaDevDTMFEndEventForceAscending, has been added to this release to provide flexibility with the RFC 2833 DTMF events to help with CPE compatibility. This MIB allows the customer to enable/disable a feature to make the RFC 2833 DTMF end event duration to be at least as big as the last ‘interim’ event duration.

Persistent Line Status Feature

A new MIB Object, arrisMtaDevPersistentLineStatus, has been added to the release to support a persistent line status feature. This feature allows a customer to set a line permanently down (forceDisable(1)) and for that setting to remain over resets. This MIB can only be set after registration and by the use of SNMP. To restore a line to service, the MIB must be set to ignore (Ignore(0)) or the unit reset to factory default.

Added in TS6.1.47

Additional IPv6 CLI Commands

Three new CLI commands have been added to support the display of the ARP table and route when using IPv6. The commands are listed below:

- route6Show: Prints out the IPv6 default route, interface, flags, and how long until it expires.
- pfxList: Prints out prefix information including the prefix, interface, flags, reference count, lifetimes and when it will expire.
- rtdebug: Includes the state of the route, detailed interface data, and link local data.

SIP Feature: Insert Additional Character into Dial String

This feature introduces a new MIB Object, sipCfgDialProxyMethodDelimiter, to provide a provisionable value which can be inserted into the SIP dial string.

Added in TS6.1.38C

No new features were added.

Added in TS6.1.38B

No new features were added.

Added in TS6.1.38

SIP Stutter Dial Tone on Hook Flash

A sipCfgSipFeatureSwitch, 0x00000040, has been added to play stutter dial tone when a hook flash occurs for a second call.

WTM552 WPA Enterprise Support

WTM552 WPA Enterprise encryption is supported in this release.

Added in TS6.1.34A

No new features were added.

Added in TS6.1.34

MaxCPE Bypass Update

The MaxCPE Bypass MIB has been updated so that new models of E-MTAs are automatically taken into consideration when they use additional space in the CPE table. For example, the WTM552 will automatically take into consideration the extra CPE row needed for the WRM module.

SIP Penalty Box Timer

A new SNMP MIB Object, sipCfgPenaltyBoxTimeout, has been added to this release to enable timers to expire entries in the SIP Penalty Box. If this timeout value is set to zero, the current functionality will still exist of entries being blacklisted until all SRV records have experienced similar failures.

Argentina Country Template

A new line card template for Argentina is supported in this release. This template defines unique tones, tone levels, hookflash times, and ring cadences for this region. This template can be set using the ppCfgmtaCountryTemplate MIB.

CMIM Support

CMIM is a new field in the US classifier structure that can be used to classify traffic based on the CM interface. When this field is present in the US classifier, a packet is said to match the classifier only if the traditional fields match and the source interface of the packet is present in the CMIM of the classifier. For the DOCSIS 2.0+IPv6 release, the CMIM will have a maximum length of 32 bits or 4 -bytes.

Dialing Method Persistence MIB

The Dialing Method Persistence MIB, arrisMtaDevEndPntDialingMethod, has been modified to allow SNMP initiated changes to persist over reboots and restarts of the E-MTA.

Daylight Savings Time (DST) Feature

The Daylight Savings Time feature allows the user to configure a rule to define when DST time changes are applied. This policy defines the start/end dates/times of the DST for the given region. To enable this feature the MIB, arrisCmDevDSTPolicy, should be used.

WTM552 Enhancements

Several new enhancements have been added to the WTM552 to support new MIBs, disabling of the reset button, and provisioning file error detection. A brief explanation on these additions is provided below:

- WTM552 MIBS: This firmware release adds the capability to configure the WRM operational parameters using SNMP. This new MIB, ARRIS-WRM-DEVICE-MIB, supports this functionality.
- WRM Provisioning File Error Detection: This release adds support to help debug and report provisioning file errors. A new webpage, provf.html, has been added to illustrate important provisioning file characteristics as well as any detected parse error messages. SNMP and CLI commands have also been added to view this information.
- Disable Factory Default Reset Button: A new feature switch has been added to the MIB, arrisCmDevModemFeatureSwicth2, to allow the operator to disable the

WRM card factory reset. This reset occurs when the WRM reset button is pressed for more than 8 seconds. When bit 5 is enabled, the WRM reset button will not cause the WRM to reset to factory defaults.

Load Variant to Only Look at Downstream Frequency 741 MHz

A new load variant has been created with an extension of 'F741'. This load when applied to an E-MTA will only look at a downstream frequency of 741 MHz. This load should only be used in a network where the CMTS downstream is set to that frequency.

Added in TS6.1.21

New Hardware Support

Included in this release of firmware is support for addition Touchstone hardware models. Below is a list of new models supported.

- TM602G rev2
- TM601
- TM604
- TM608
- DTM602 – The DTM602 hardware combines the functionality of the TM602 hardware with the Vtech IP8301 Digital Enhanced Cordless Telecommunications (DECT) phone set.

IPv6 Support for the Cable Modem

This release supports the usage of IPv6 addressing for the Cable Modem over a DOCSIS 2.0 interface. This capability allows MSOs the opportunity to reclaim some of the IPv6 addresses currently used in deployment. All supporting servers and applications pertaining to the CM operation must support IPv6. The DOCSIS 3.0 MAC Domain Descriptor (MDD) message is used to determine where IPv6 should be used for the CM device. In the absence of an MDD message, the CM will only use IPv4 addressing.

Several additional MIBs have been updated so access to the address and address type can be obtained. The additional MIBs are to support this for the DHCP Server, TOD Server, TFTP Server, and SYSLOG Server. Additional changes have been made to support IPv6 in the CLI trace information and web page displays.

IPv6 addressing is not supported for SingleMAC provisioning, the MTA IP Address, or CPE devices. Unique CM configuration files will be required for devices operating in each mode. Additional details regarding this new feature can be found in the user documentation.

Updated Management Information Base (MIB) Trees

Support has been added for several new RFC defined MIB trees. The below list provides information on the RFC MIB trees now supported.
RFC 4639 – Cable Device MIB for DOCSIS Compliant CM and CMTS

RFC 3419 – Textual Conventions for Transport Addresses which contains enhancements for the SNMP Target Address Table
RFC 3584 – Coexistence between V1, V2, and V3 of the internet-standard Network Management Framework
RFC 3413 – Simple Network Management Protocol Applications

RFC 4293, Management Information Base for the Internet Protocol, is not supported for this release but the MIBs have been added. If read a 0 or empty string will be returned.

Reset to Factory Defaults

A new feature is supported in this release to set the E-MTA back to factory defaults and clear settings stored in NVRAM. Under the NVM menu in the CLI, the '!defaults' command will restore the E-MTA to factory defaults. The SNMP MIB Object, arrisMtaDevRestoreNvmFactoryDefault, will also restore factory defaults.

SuperG3 Fax Support

In this release, SuperG3 fax support for V.8 CM signaling is supported for the following hardware models: TM601, TM602, TM604, TM608, DTM602, TM508, and TM512. A new MIB, arrisMtaDevSuperG3FaxRelay, has been included in this release to allow the user to decide how to setup the fax transmission. The default operation will setup the connection over the G.711 CODEC instead of using T.38. In T.38 mode, SuperG3 is supported at T.38v0 which is a 14.4 bps connection.

Automatic DOCSIS Configuration Support

The TM601B/DM and TM602B/DM hardware platforms in this release can support either a North America or European CMTS plant. The E-MTA during the registration process will search Annex A and Annex B frequency bands. Once a frequency is identified, the information is stored to the Dual Mode Discovered Market (DMDM) that is stored in NVRAM. The SNMP MIB, arrisCmDevDualModeDiscoveredMarket, will display the currently stored DMDM. In this configuration, the European CVC needs to be used in the configuration file.

SIP Session Expire Control

This release introduces support of a new SNMP MIB, sipCfgSessionExpires, that allows a user to specify the preferred session expiry timeout that is sent in the SIP Invite message. Setting this MIB to 0 seconds will allow the proxy to control the session expiration timer settings.

Time Offset Adjustment

Time of Day (TOD) changes within a network cause operator issues with features such as CLIP information in SIP. The changes are handled through the DHCP timing offset but these changes only take affect when the devices goes through a renew. This release implements an SNMP MIB, arrisCmDevTODTimeOffset, which allows an operator to

adjust the TOD using the CM IP Address. The DHCP timing offset received at renewal will take precedence over this setting.

SIP Registration Timer

The sipCfgRegExpires MIB object was created to allow customers to customize the registration expiry value through the MTA configuration file. If this MIB is set to a non-zero value, the MTA will suggest a registration expiry value in the REGISTER request's contact header.

Last Call Voice Quality Metrics (VQM)

A new read-only MIB has been added to the existing MIB in the arrisMtaDevVqm MIB tree to allow easier access to the VQM information for the last call. The new SNMP MIB, arrisMtaDevVqmCallNumberIdentifierLastCall, will point the existing arrisMtaDevVqmCallNumberIdentifer MIB to the appropriate last call information. The user can now simply read the arrisMtaDevVqmMetricTable to obtain the VQM data.

Fax Only Line

This release supports a fax only line for NCS that has previously been supported for SIP releases only. This new SNMP MIB, arrisMtaDevEndPntFaxOnlyLineTimeout, can be used for either SIP or NCS to set a line for fax transmission only. The line will wait the amount of time specified in this MIB to detect a fax tone before disconnecting the call. The previously supported SNMP MIB for the configuration of a SIP line in fax only mode is still supported.

CallerID Enhancements

An additional SNMP MIB as well as another option for an existing SNMP MIB was added to this release to improve CallerID interoperability. An additional option for the arrisMtaDevDefaultReasonNoCIDName MIB was added to send the MDMF format but exclude any name parameters. A new SNMP MIB, arrisMtaDevOffHookFskDelay, was added to control the amount of time the MTA delays transmitting the FSK after receiving the ACK from the CPE.

Trivial File Transfer Protocol (TFTP) Block Size Configuration

This feature supports the ability to increase the block transfer size which directly decreases the transfer time of the configuration file. The block size can be modified using the SNMP MIB arrisCmDevTftpBlkSize.

PacketCable 1.5 Battery Backup MIBs

The PacketCable 1.5 Battery Backup MIBs are supported with this release on the TM502, TM504, and TM60X products. The following MIB support has been included:

- upsShutdownType – type of UPS shutdown to perform
- upsShutdownAfterDelay – turn off UPS after X amount of time

- upsStartupAfterDelay – start of the output after X amount of time
- upsRebootWithDuration – immediate shutdown of UPS

RIPv2 Support on non-WTM552 E-MTAs

Currently, the E-MTA operates in bridge mode to the CPE devices. Enabling RIPv2 via the CM configuration file (non-WTM552 devices) will allow the CM to be setup in routing mode. A RIP webpage is now available to view the settings for this feature. Information on the RFC MIBs available to support this configuration can be found in the user documentation.

RIPv2 Support on WTM552

Support for RIPv2 on the WTM552 can be configured using the WRM configuration file, HTTP, CLI, or SNMP. Setting for RIP can be viewed under the RIP Status heading on the Wireless Router Web Page. The proprietary MIBs used to configure RIP on the WTM552 can be reviewed in the user documentation.

PacketCable 1.5 Voice Quality Metrics

The PacketCable 1.5 Voice Quality Metric Support with a call agent is supported for NCS in this release of firmware. SNMP MIBs have been added to disable this feature as well as control thresholds for value to report on. Turning on this capability greatly increases the size of the report provided to the call agent.

WTM552 Router Web Page Access

In this release of firmware, the WTM552 router web page can be accessed from the 192.168.100.1 IP address. This one location can now be used to seamlessly move through all the web pages needed to support the WTM552.

MAC Address Aging

A new feature bit (0x20000000) in the arrisCmDevModemFeatureSwitch2 controls the ability to allow an MTA to recycle learned table entries in the CPE MAC address table. This is in violation to the DOCSIS specification but necessary in some applications where multiple users are continuously using an E-MTA device. This feature will cause older entries in the CPE MAC address table to be deleted when space is needed for a new user.

SIP 486 Ringback

A new SIP feature switch is added to play a local busy tone upon receipt of a 486 message. To activate this feature, set the sipCfgSipFeatureSwitch to 0x00000400.

Highest Temperature Recorded MIBs

This release supports the ability to display the highest temperature ever recorded along with the date and time in which that occurred. These new SNMP MIBs are supported for the TM502, TM504, WTM552, TM602 and TM604 E-MTAs.

PacketCable 1.5 Provisioning Methods

ARRIS currently supports all five provisioning flows defined in the PacketCable 1.5 specification. These flows are Basic.1, Basic.2, Hybrid.1, Hybrid.2 and secure. These provisioning methods are determined via the DHCP options and the SNMP MIB arrisMtaDevPacketcableProvisioningFlow will display the current provisioning method. The existing ARRIS provisioning methods with still work but will not be displayed in the above MIB.

2.2 Resolved Field Bulletin

The following Field Bulletin issues were resolved in this Touchstone Firmware release or previous Firmware release.

Field Bulletin Number	Field Bulletin Title	Product Defect Number
AFB-09-0311	ARRIS Modem May Lose Layer 3 Connectivity in the Event the CM REG-ACK is Not Received.	PROD00146799
AFB-09-0310	ARRIS Model 6 E-MTAs Running TS6.1 Firmware Will Not Forward Multicast Streams to CPE	PROD00147529
AFB-09-0309	ARRIS Model 6 E-MTAs May Not Complete A Successful Firmware Download from Release TS6.1 to Release TS6.1	PROD00147108, PROD00145391
AFB-09-0307	ARRIS Modem May Not Complete Ranging after a DCC Followed by a Ranging Abort Initiated from the CMTS	PROD00146241
AFB-09-0306	IPv6 DHCP Failure Results in Loss of Service	PROD00143180
AFB-09-0305	ARRIS E-MTA may not Complete its Ranging Adjustment During a DCC Operations	PROD00144302
AFB-09-0304	ARRIS E-MTA Resets Approximately Every 10 Days	PROD00139683
AFB-09-0303	WTM552 may get Stuck in a Reboot Loop if the Upgrade Process is Interrupted	PROD00139786
AFB-09-0302	MTA May Lose Layer3 Connectivity After a DHCP Renew-No Response	PROD00134378
AFB-09-0301/ AFB-09-0301R	ARRIS EMTAs may Lose Layer 3 Connectivity after Dynamic Channel Change Request (DCC-REQ) on the CMTS	PROD00138654
AFB-08-0315	E-MTAs Operating Using G.729 CODEC May Experience Static	PROD00129912
AFB-08-0314	DOCSIS 2.0 Auto Detection Feature on E-MTA may not Activate DOCSIS 2.0 Mode	PROD00131033
AFB-08-0313	MTA may Reset due to Broadcast Negative Acknowledgement (NAK) Destined for Other Devices	PROD00128484

2.3 Resolved Product Deficiencies

ARRIS continues to resolve any product deficiencies discovered. This Touchstone Firmware release contains closure for the detailed issues listed in the following section.

Considerations that apply to a specific feature implementation will be designated with one of the following prefixes included in the heading:

- X-JC: Japan NCS Package
- EU: Euro-PacketCable Provisioning Sequence
- SIP: SIP Signaling Protocol
- NCS: NCS Signaling Protocol
- T.38: T.38 Feature Specific Issue
- SSH: Secure Shell
- IPv6: Internet Protocol version 6

The following issues were resolved in release 6.1.95

2.3.1 RIP CLI Commands are not Accessible via PWOD	
Tracking No.	PROD00148405
Description	The RIP CLI commands are not accessible via the CLI for non-WRM models for troubleshooting. This is design intent and user documentation has been updated to reflect this operation.
Impact	Operational
Occurrence	High
2.3.2 WTM552 Frequent IP Releases	
Tracking No.	PROD00148849
Description	The WTM552 was found to lose its WRM IP address resulting in the PC connected to the WTM552 not being to access the WAN side and packet loss is experienced.
Impact	Service

Occurrence	Low

2.3.3 Web GUI Displays Incorrect Status for Computers Detected

Tracking No.	PROD00149168, PROD00141979
Description	E-MTAs Web interface displays incorrect status for Computers Detected. Computers detected may display '0' even through the LAN interface is UP and Ethernet access is available.
Impact	Service
Occurrence	Low

2.3.4 TM402: FIFO Event Causes TEK Invalid and DSP Reset

Tracking No.	PROD00152040
Description	An issue was identified with a specific CMTS vendor that resulted in the TM402 observing a FIFO event. This event previously resulted in a TEK invalid message on the CMTS and a DSP reset on the E-MTA. This release will store the TEK key and does not reset the DSP in this scenario.
Impact	Service
Occurrence	High

2.3.5 pktcDevEvProgrammableReporting MIB with Value 0xC0 Working Incorrectly

Tracking No.	PROD00151278
Description	When the MIB pktcDevEvProgrammableReporting is set to 0xC0 (Local event log and Trap server) both syslog and trap events are received. .
Impact	Operational
Occurrence	High

2.3.6 Webpage Battery Serial Number

Tracking No.	PROD00141856
Description	When the power save shutdown is in effect (10 minutes after AC removed), the webpage will now show the Battery Serial number instead of stating it is unavailable.

Impact	Operational
Occurrence	High

2.3.7 Discrepancy with Battery Ordering Codes

Tracking No.	PROD00146604
Description	Battery Ordering Code is being incorrectly read and displayed. This is due to a communication problem between the processor and the EPROM.
Impact	Operational
Occurrence	Low

2.3.8 Australia Line Card Country Template Change

Tracking No.	PROD00145225
Description	For the line card country template Australia, a solid tone was being played instead of stutter dial tone.
Impact	Service
Occurrence	High

2.3.9 Lockup during Bulk Call Testing

Tracking No.	PROD00152073, PROD00151312
Description	With an active telnet session present, turning on multiple traces during extremely high call volume such as bulk call testing could cause the EMTA to lock up. Traces of this nature should not be enabled in the field unless directed to do so by ARRIS technical support. These traces can cause issues if enabled during bulk call testing in a lab environment. To help avoid this issue, additional robustness has been added in this area to keep the telnet session alive.
Impact	Service
Occurrence	Low

2.3.10 SIP: Restriction of Incoming Offer was Incorrectly Accepting G.711 CODEC when not in the CODEC Array

Tracking No.	PROD00152548
Description	The sip feature switch contains a setting that allows the user to restrict the acceptance of certain CODECs. Regardless of the

	settings in the MIB, the G.711 CODEC was being accepted.
Impact	Service
Occurrence	High

2.3.11 Battery Depleted Alarm Missing

Tracking No.	PROD00151717
Description	When AC power is removed and the battery level goes from Low to Depleted, no trap or syslog message is sent.
Impact	Operational
Occurrence	High

2.3.12 Source MAC Address Incorrect if TOD Server is Offline

Tracking No.	PROD00150554
Description	If the TOD Server is Offline when the modem registers, the source MAC address in the response is not correct.
Impact	Operational
Occurrence	High

2.3.13 MuSecurity HTTP and Telnet Robustness

Tracking No.	PROD00150826, PROD00143184, PROD00143321
Description	During recent security test runs using the Mu Security test application, several potential vulnerabilities were identified in the D2.0 HTTP and Telnet firmware. This update adds robustness to provide stricter validation of the incoming HTTP and Telnet requests.
Impact	Operational
Occurrence	High

2.3.14 Incorrect Ring Frequency for Israeli Template

Tracking No.	PROD00150582
Description	The ring signal frequency of 20 Hz was causing some CPEs not to detect the ring signal and not to answer the incoming call. The ringing signal frequency has been updated to 25 Hz.
Impact	Service
Occurrence	High

2.3.15 SysObjectID Incremented for Firmware Release	
Tracking No.	PROD00151925
Description	The MIB Object, sysObjectID, previously incremented for each firmware release.
Impact	Operational
Occurrence	High
2.3.16 Reset Reason of Other	
Tracking No.	PROD00152102
Description	In the firmware, a few error paths were noted where OTHER was used as a valid Reset Reason. These have been changed to a more descriptive reset reason to decrease the usage of 'Other'.
Impact	Operational
Occurrence	High
2.3.17 Battering Ordering Codes Updated	
Tracking No.	PROD00151653
Description	The ordering codes for the two battery packs BPB088S and BPB026S were added in this release to be displayed on the web page. Previously these batteries were listed as a type of 'Contact ARRIS'.
Impact	Operational
Occurrence	High
2.3.18 WTM552/WTM652: Downloads Hang at 99% When Downloading Files Greater than 75MB	
Tracking No.	PROD00149447
Description	When a user attempts to download files greater than 75 MB in size, the download hangs at 99% and never completes.
Impact	Service
Occurrence	High
2.3.19 E-MTA does not Support Payload Type 96	
Tracking No.	PROD00151504

Description	When a CRCX with payload 96 is sent from the CMS to the MTA, the MTA returns with payload 101 in the SDP. The payload should return what was sent in the CRCX.
Impact	Operational
Occurrence	High

2.3.20 E-MTA does not accept the maximum value allotted (4294957295) for SF max-tr-burst

Tracking No.	PROD00127450
Description	The maximum value for Service Flow SF max-tr-burst is 4294967295. The E-MTA only accepts up to half that value. This issue currently has no fix planned.
Impact	Operational
Occurrence	High

The following issues were resolved in release 6.1.88

2.3.21 Incorrect Response to dot1dTpFdbAddress MIB Walk

Tracking No.	PROD00146317
Description	MIB walk of dot1dTpFdbAddress returns USB IP and MAC addresses even if the CPE is disconnected from the USB port.
Impact	Operational
Occurrence	High

2.3.22 Incorrect Response on UDP Port 67

Tracking No.	PROD00150795
Description	E-MTA does not reply with “Port Unreachable” on closed UDP Port 67.
Impact	Operational
Occurrence	High

2.3.23 RTCP-XR Local Metrics Reporting Incorrectly	
Tracking No.	PROD00144624
Description	When extended local metrics is enabled, the E-MTA will respond with all ‘0’s in the 250 ACK for all extended local metrics.
Impact	Operational
Occurrence	High

2.3.24 TM402 High Data Traffic Causes Failures if Dynamic Interleave is Enabled	
Tracking No.	PROD00149432, PROD00149197
Description	A timing issue has been discovered on the TM402 when interleaving is enabled on the CMTS. The E-MTA may reset or not provide dial tone. This issue has been observed in cases of large burst of data traffic which results in a processor delay handling upstream messages.
Impact	Service
Occurrence	High

2.3.25 Extraneous Log in TS 6.1.77 Release	
Tracking No.	PROD00148956
Description	A debug message was left in the TS 6.1 stream that would appear in the log after a power cycle, reset button pressed, !reset, or docsDevResetNow. `12:59:26 RT 53 tMVX_D  ***** in hwu_McBsp1_reset()*`
Impact	Operational
Occurrence	High

2.3.26 E-MTA Fails to Upgrade From Server in the DHCP Offer	
Tracking No.	PROD00149125
Description	When docsDevSwServer mib is not set in the CM config file and there has been a corruption in the application portion of the firmware image in flash, the firmware upgrade using the siaddr from the DHCP Offer would fail with E-MTA reporting TFTP Timeout.

Impact	Service
Occurrence	Low

2.3.27 Incorrect Response to arrisMtaDevPersistentLineStatus MIB Set

Tracking No.	PROD00149478
Description	If an E-MTA line has not yet registered and arrisMtaDevPersistentLineStatus for that line is set, it returns success but the operation actually fails. This MIB can only be set after successful registration.
Impact	Operational
Occurrence	High

2.3.28 Reject Call Message due to Blank SDP Session Parameter

Tracking No.	PROD00149362
Description	E-MTA is returning a ‘510 Parsing Error’ with calls where the SDP contains a blank session name parameter, "s=".
Impact	Service
Occurrence	High

2.3.29 E-MTAs Fail to Recover After Loop Diagnostics

Tracking No.	PROD00142337
Description	Some E-MTAs are stuck in an “Out of Service” state after running loop diagnostics due to test results falling outside self-test limits.
Impact	Service
Occurrence	Low

2.3.30 Incorrect Name for arrisCmDevDhcpOfferedLeaseTime MIB

Tracking No.	PROD00148803
Description	The MIB arrisCmDevDhcpOfferedLeaseTime appeared in the MIB files incorrectly as arrisMtaDevDhcpOfferedLeaseTime.
Impact	Operational

Occurrence	High

2.3.31 E-MTA Reset when Completing Fax Call

Tracking No.	PROD00149159
Description	E-MTA could reset when completing a fax call if call agent deletes connection before fax call is completed.
Impact	Service
Occurrence	Low

2.3.32 E-MTA is Not Correctly Setting IP ToS/DiffServ Bits in RTP Packets for MTA-originated Calls

Tracking No.	PROD00150636
Description	When outgoing calls made by the E-MTA, with certain Call Agents, the RTP packets were found not to contain the correct TOS value as set in the configuration file or connection requested from the Call Agent.
Impact	Operational
Occurrence	Low

2.3.33 Caller ID Not Signaled According to Brazilian Standard

Tracking No.	PROD00149723
Description	The Brazilian callerid signaling, which uses DTMF mode, should be sent before the first ring but it is being sent between the first and the second ring.
Impact	Service
Occurrence	High

2.3.34 DST Policy MIB Object Does Not Work for Year 2010

Tracking No.	PROD00150934
Description	The arrisCmDevDSTPolicy MIB does not work for the year 2010. This is due to a time function not returning the correct value when year turns to 2010. This issue will be documented and released in a Field Bulletin.
Impact	Service

Occurrence	High

2.3.35 E-MTA Resets Due to EXCEPTION During Call Waiting Scenario

Tracking No.	PROD00150445
Description	In a Call Waiting scenario, the E-MTA intermittently resets when the call waiting call is answered. The E-MTA will issue an exception and reboots. This only happens when remote VoIP metrics are enabled.
Impact	Service
Occurrence	Low

2.3.36 DCC to Change Upstream Bandwidth Causes E-MTA to Re-range

Tracking No.	PROD00143244
Description	When Pre-Equalization is enabled and there is a change in upstream bandwidth, a DCC with init-tech 2/3/4 may cause the E-MTA to go off-line and completely re-range before coming back online.
Impact	Service
Occurrence	Low

The following issues were resolved in release 6.1.77A

2.3.37 EURO: DiffServ-DSCP-TC MIB Objects Are Not Available

Tracking No.	PROD00147422
Description	The DiffServ-DSCP-TC MIB objects are not available in TS 6.1.
Impact	Operational
Occurrence	High

2.3.38 WRM Webpage Cannot be accessed from LAN IP Address

Tracking No.	PROD00147213

Description	On the WTM552 and WTM652, the WRM webpage cannot be access from the LAN IP address.
Impact	Operational
Occurrence	High

The following issues were resolved in release 6.1.77

2.3.39 IPv6: Renew / Rebind MIB Values Incorrect	
Tracking No.	PROD00143605
Description	The value of the TimeUntilRenew and DhcpState MIB Objects do not display correct information for IPv6 mode E-MTAs.
Impact	Operational
Occurrence	High
2.3.40 E-MTA Sends 200OK to CRCX with ptime:30	
Tracking No.	PROD00144800
Description	When the E-MTA receives a request for a ptime:30 request, the E-MTA will accept this request but provide one-way speech path. For NCS, this release will be able to accept the ptime:30 message and handle the conversation without causing a one-way speech path. For SIP deployments, the call setup will be accepted and the E-MTA outgoing packet rate will be 20ms..
Impact	Service
Occurrence	High
2.3.41 IPv6: E-MTA Not Sending Option Code 17 in ORO	
Tracking No.	PROD00148061
Description	When running in IPv6 mode, the E-MTA was not including option 17 in theDHCPv6 Option Request Option (ORO) list.
Impact	Operational
Occurrence	High
2.3.42 Extreme Robustness Testing Issues Resolved	
Tracking No.	See Below

Description	• PROD00130874: Final provisioning status failed after power cut • PROD00146386: SIP E-MTAs may experience a small memory leak if a cable cut occurs while a call is active. Over 100 instances of this must occur before the user will experience an issue.
Impact	Service
Occurrence	Rare

2.3.43 WTM: Additional MIBs Needed to Support WRM RIP Unique Configuration File

Tracking No.	PROD00147677
Description	Additional MIBs are needed to utilize the WRM RIP Unique configuration file feature. The following MIBs are now available: • rip2IfConfSend • arrisWrmDevNATEnable
Impact	Operational
Occurrence	High

2.3.44 SDP Payload may cause Bandwidth Error

Tracking No.	PROD00147587
Description	A call from an IMS subscriber to an ARRIS NCS subscriber may result in a 510 Protocol Error on the ARRIS E-MTA. The root cause is in the SDP payload when the bandwidth information "b=AS:X" and "b=TIAS:Y" are both present.
Impact	Service
Occurrence	High

2.3.45 RF Issue During Registration Results in Loss of Layer 3 Connectivity

Tracking No.	PROD00146799
Description	If interference occurs during registration and the REG-ACK is dropped, the E-MTA will register successfully but layer 3 connectivity will be lost. This issue is documented in AFB-09-0311.

Impact	Service
Occurrence	High

2.3.46 TM6XX: Multicast Traffic Does Not Work

Tracking No.	PROD00147529
Description	When running release TS6.1 on a TM6XX model, multicast traffic is not recognized by the E-MTA and discarded. This issue is documented in AFB-09-0310
Impact	Service
Occurrence	High

2.3.47 Loop Voltage May Drop After E-MTA Reset

Tracking No.	PROD00130884
Description	Due to some register initializations, loop voltage may be dropped on the following E-MTAs regardless of the Loop Voltage Management setting during an E-MTA reset. This will result in loop voltage being unavailable for 4 to 5 seconds. TM401, TM402, TM501, TM502, TM504, WTM552, TM608
Impact	Service
Occurrence	Low

2.3.48 PacketACE 12.6: CMTS MIC Issue

Tracking No.	PROD00144847
Description	PacketACE 12.6 cannot generate the CMTS MIC correctly for CM configuration files. In some cases, the file is saved with incorrect CMTS MIC value.
Impact	Operational
Occurrence	High

2.3.49 IPV6: Upgrade Fails If Upgrade Server Set to 0.0.0.0 in Configuration File

Tracking No.	PROD00144853
Description	When running in IPV4 mode, the upgrade file server can be set to 0.0.0.0 in the CM configuration file and the E-MTA will look

	for the upgrade file name on the server from which the CM Configuration file was obtained. This functionality does not work when operating in IPv6 mode. This was a test case failure due to the IP address not being in IPv6 format.
Impact	Operational
Occurrence	High

2.3.50 Upgrade MIB Stuck in "In Progress" after a Power Failure during an Upgrade

Tracking No.	PROD00144309
Description	When E-MTA is power cycled while downloading a new load via SNMP, the DocsDevSwOperStatus MIB can get stuck in the "In Progress" State. This issue could not be reproduced.
Impact	Service
Occurrence	Medium

2.3.51 MIB docsDevNmAccessIpMask = 0.0.0.0 Does Not Enable Traps

Tracking No.	PROD00142446, PROD00142553
Description	Traps do not properly enable if the MIB docsDevNmAccessIpMask is set to 0.0.0.0. This was not an issue but a problem with the test scenario.
Impact	Operational
Occurrence	High

2.3.52 Voice Line Total Failure with DSP Reset

Tracking No.	PROD00137824, PROD00144458, PROD00143374
Description	During bulk traffic testing, a problem was observed where the DSP autonomously reset. The MTA event log showed a Voice Line Total Failure. The E-MTA automatically recovers from this issue and data service is not affected. This issue could not be reproduced.

Impact	Service
Occurrence	Rare

2.3.53 Extreme Robustness Testing Issues

Tracking No.	PROD00131669
Description	• PROD00131669: Exception during a power cut • PROD00136844: Watchdog Timer Reset The following issues cannot be reproduced.
Impact	Service
Occurrence	Rare

2.3.54 Incorrect T.38 DS QOS Bandwidth Calculation

Tracking No.	PROD00107684
Description	When calculating the DS bandwidth required for a T.38 call, the MTA should use only the t38MaxDatagram and not include the provisioned redundancy level for the US. This can cause fax failures to occur between NCS and SIP devices. This was not an issue but a problem with the test scenario.
Impact	Service
Occurrence	Low

The following issues were resolved in release 6.1.72

2.3.55 CM DHCP Lease Time on WebGUI Displays 0 days

Tracking No.	PROD00143022
Description	On the WebGUI, the CM DHCP lease time value is displayed as 0.0 days regardless of the lease time value. The value shown in seconds is correct.
Impact	Operational
Occurrence	High

2.3.56 Codeword Error Rate Calculation Incorrect	
Tracking No.	PROD00140668
Description	In prior releases, the codeword (CW) error rate was incorrectly counting the corrected and uncorrected errors. This made the CW Error appear to be incorrect. The CW errors now only take into account the uncorrected errors.
Impact	Operational
Occurrence	High
2.3.57 One-way Audio Path when Using Unsupported 30 ms Packetization Rate	
Tracking No.	PROD00144800
Description	The E-MTA should reject a request to negotiate an unsupported packetization rate of 30ms to fall back to a lower packetization rate of 20ms or 10ms. Instead, the E-MTA accepts the request resulting in a one-way audio from the E-MTA to the far-end device.
Impact	Service
Occurrence	Low
2.3.58 Interoperability Issue With Load Balancing on CISCO CMTS	
Tracking No.	PROD00146241
Description	An issue has been observed where the load balancing feature on CISCO CMTS loads can cause the E-MTA to become stuck looking for a valid US. When this occurs, the CMTS places the E-MTA in an offline status. The only way to recover the E-MTA is with a power cycle. This issue is documented in AFB-09-0307.
Impact	Service
Occurrence	Low
2.3.59 RF Cut During Registration May Result in No Dial Tone	
Tracking No.	PROD00146421

Description	When multiple RF cuts occur during registration, the MTA may become stuck in a Tele-TFTP provisioning state. In this scenario, the MTA MAC address is no longer present in the CPE table. To get into this condition, a failure to ACK the SNMP final Inform must happen. A reset of the E-MTA will now automatically occur to clear this problem. This LOC item is still being tracked to identify the root cause of this issue.
Impact	Service
Occurrence	High (Full PC Provisioning)

2.3.60 Downstream Frequency Override (DFO) Caused E-MTA to Become Non-Responsive

Tracking No.	PROD00146426
Description	An issue was identified where the ARRIS E-MTA would become stuck with the US LED flashing when a DFO was received with the US Frequency changing but the DS TLV remaining the same.
Impact	Service
Occurrence	Low

2.3.61 SIP: Post Provisioning Configuration Download Does Not Delete Lines

Tracking No.	PROD00130691
Description	The SIP firmware load has the ability to download a configuration file without affecting service. This allows operators to change the configuration file while an E-MTA is in-service. This mechanism does not allow the operator to delete lines already provisioned on the E-MTA by simply omitting the line provisioning from the special downloaded configuration file.
Impact	Operational
Occurrence	High

2.3.62 Password of the Day Not Hidden on CLI

Tracking No.	PROD00145575
Description	If another attempt is made to log into the CLI after issuing the quit command, the password of the day (PWOD) is seen in the clear instead of being hidden.

Impact	Operational
Occurrence	High

2.3.63 Automatic OSI Does Not Function In An IPDT Environment

Tracking No.	PROD00145814
Description	An issue has been discovered with the ARRIS feature automatic OSI. If this feature is enabled via the callpfeature switch, the OSI will not be generated in an IPDT solution due to a timing issue.
Impact	Service
Occurrence	Medium

2.3.64 TM402: Battery MIBs Prevent Registration

Tracking No.	PROD00134874
Description	Setting the following MIB Objects in the CM configuration file will cause the TM402 to fail registration. • arrisMtaDevPwrSupplyConfigReplaceBatTime.0 • upsConfigLowBattTime.0
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.67A

2.3.65 RF Cut During Registration May Result in No Dial Tone

Tracking No.	PROD00145767
Description	When multiple RF cuts occur during registration, the MTA may become stuck in a Tele-TFTP provisioning state. In this scenario, the MTA MAC address is no longer present in the CPE table. To get into this condition, a failure to ACK the SNMP final Inform must happen. A reset of the E-MTA will now automatically occur to clear this problem. An LOC item is still being tracked to identify the root cause of this issue.
Impact	High (Full PC Provisioning)

Occurrence	High

2.3.66 Occasional T3 Event Observed After DCC Initiated

Tracking No.	PROD00144452
Description	When the E-MTA gets a DCC request from the CMTS, the modem may change upstream channels. If this scenario occurs, the E-MTA may T3 causing it to re-range.
Impact	Service
Occurrence	Rare

2.3.67 Network Ringback Tone Volume Too Low

Tracking No.	PROD00145069
Description	When the network ringback tone was played by the E-MTA to the farend, it was incorrectly padded by 6dB making the volume level low.
Impact	Service
Occurrence	High

2.3.68 Network Ringback Tone Distortion

Tracking No.	PROD00145198, PROD00145295
Description	When network ringback tone was played, distortion of the ringback signal was possible prior to the initial off-hook of the E-MTA. This issue could occur at installation or after a reset of the E-MTA.
Impact	Service
Occurrence	High

2.3.69 Recovery Robustness for MTA Security Socket Failure

Tracking No.	PROD00145306
Description	Recovery robustness has been added around the MTA security socket. During recovery, if this socket is found to be in an invalid state the E-MTA will automatically reset. When this occurs, the E-MTA is not providing service and the last reset reason will be updated to display a reason of ‘OS’.
Impact	Service
Occurrence	Low

2.3.70 E-MTA Stuck in Ranged State on CMTS	
Tracking No.	PROD00143975
Description	E-MTAs running TS 6.1 loads prior to this release, could become stuck in a ranged state if they saw an IPv6 Offer. Once the IPv6 Offer was seen, the E-MTA would no longer accept an IPv4 offer until the unit was power cycled. This issue is documented in AFB-09-0305.
Impact	Service
Occurrence	High

2.3.71 ARRIS E-MTA's Can Flap and Re-Range after DCC	
Tracking No.	PROD00144302
Description	When doing DCC operations with init-tech 2 or init-tech 3, the E-MTA's can fail to successfully move to the new channel. In these instances, the E-MTA will appear to reset and remain on the old channel.
Impact	Service
Occurrence	High

2.3.72 SIP: G729 Data Calls Do Not Fall Back to G711	
Tracking No.	PROD00137205
Description	An issue has been identified where G729 SIP calls do not fall back to the G711 CODEC because the data Bell Modem protocol CED tone is not detected. Please refer to the feature section for additional information.
Impact	Service
Occurrence	High

2.3.73 SIP: Inbound Fax DSx QoS Failure During Codec Negotiation	
Tracking No.	PROD00142592
Description	When the callpfeature switch is set to enable DSx QoS, the re-invite message falsely set the CODEC value to zero. This incorrect CODEC negotiation value causes QoS setup to fail, dropping the call.

Impact	Service
Occurrence	High

2.3.74 IPv6: DHCP Failure May Result in No Service

Tracking No.	PROD00143180, PROD00143282
Description	If running in IPv6 mode, a failure to renew the CM IP address during renew and rebind may result in an E-MTA not obtaining a CM IP address. The E-MTA if affected will require a power cycle to recover. This issue is documented in AFB-09-0306.
Impact	Service
Occurrence	Medium

2.3.75 CM DHCP Offer Error Results in CM DHCP Discover Error

Tracking No.	PROD00142902
Description	If a CM Offer is received and it does not contain option 177/122, the subsequent DHCP discovers will only advertise support for option 177.
Impact	Service
Occurrence	High

2.3.76 SIP: SIP Message Tracing Information Missing on Webpage

Tracking No.	PROD00142600
Description	Some details are missing from the SIP message output provided under the Advanced webpage. The output available from an SSH/Telnet session with tracing enabled displayed all of the messaging.
Impact	Operational
Occurrence	High

2.3.77 Battery Ordering Code ‘Contact ARRIS’ String Incomplete

Tracking No.	PROD00143031

Description	The ordering code displayed for HW models that do not support the reading of the EPROM on the battery and batteries that do not support EPROM is displayed as 'Contact ARRIS'. In some instances, the entire string may not be displayed such that only parts of 'Contact ARRIS' are shown.
Impact	Operational
Occurrence	Low

2.3.78 Dual Mode E-MTA on Annex B Displays Wrong Model Type

Tracking No.	PROD00143922, PROD00143948, & PROD00143983
Description	If a Dual Mode E-MTA is registered on an Annex B downstream, the model type in system description is improperly displayed as a North American Model (A) instead of a European Model (B).
Impact	Operational
Occurrence	High

2.3.79 TFTP Failure with PktcEnNcsEndPntFaxDetection MIB Object in Configuration File

Tracking No.	PROD00143568
Description	When the pktcEnNCSEndPntFaxDetection MIB Objects are placed in the MTA configuration file, the MTA will fail TFTP.
Impact	Service
Occurrence	High

2.3.80 E-MTA rejects SDP with 'a=rtcp-xr:'

Tracking No.	PROD00136523
Description	With NCS messaging, connection messages that included the value 'a=rtcp-xr:' without a parameter was rejected. This resulted in the call setup failing.
Impact	Service
Occurrence	High

2.3.81 TM608: Argentina Template Tones Incorrect

Tracking No.	PROD00143786

Description	Tones including rt, bz, cf, and ot are incorrect in the Argentina country template on the TM608 modem. The problem is not observed on the TM602.
Impact	Service
Occurrence	High

2.3.82 WRM Upgrade Issue if Power-cycled During Upgrade

Tracking No.	PROD00142010
Description	When the WTM552G is being upgraded, if power is removed briefly after the CM has rebooted from the upgrade, the WRM model will not upgrade.
Impact	Service
Occurrence	Rare

2.3.83 E-MTA Re-provisions after DCC

Tracking No.	PROD00144484
Description	Once a DCC operation completes successfully, the MTA call processing layer performs a full provisioning sequence instead of simply returning lines to service.
Impact	Service
Occurrence	High

2.3.84 MuSecurity Lab Test Failure

Tracking No.	PROD00143383
Description	Denial of Service attack using Syn Flood with HTTP will result in an E-MTA failure after several thousand attempts (2500 PPS).
Impact	Operational
Occurrence	Rare

2.3.85 Extreme Robustness Testing Issue(s)

Tracking No.	See Below
Description	• PROD00130818: Additional reset after docsDevResetNow • PROD00138025: RF Cut during off hook event may cause E-MTA to not be able to provide service

	• PROD00134846: Exception during a power cut • PROD00134847 & PROD00134848: Exception after docsDevResetNow • PROD00139004: During registration when an RF cut occurs, an extremely small amount of memory may be lost on the TM602.
Impact	Service
Occurrence	Rare

2.3.86 Israeli Template: Ringback Tone Timers Incorrect

Tracking No.	PROD00143054
Description	The ringback tone for the Israeli template should be 1 second on, 3 seconds off. This value is incorrectly set to 2 seconds on, 4 seconds off in the current release. Issue was the result of a configuration problem.
Impact	Service
Occurrence	High

2.3.87 RIP: CLI Commands Not Available via PWOD

Tracking No.	PROD00143028
Description	Prior to RIP being enabled on a non-WTM unit, the RIP commands should be accessible via the password of the day; however, they cannot be accessed. No fix planned.
Impact	Service
Occurrence	High

2.3.88 Enhanced Software Loading (ESL) Uses Wrong Table for Upgrade Loadname

Tracking No.	PROD00137149
Description	When using the arrisCmDevSwTable to upgrade the E-MTA, the E-MTA incorrectly uses the firmware load specified in another table, docsDevSoftware, for download purposes. Invalid test case resulted in this issue. No fix planned.

Impact	Operational
Occurrence	High

2.3.89 DCC May Result In LED Issue

Tracking No.	PROD00145579
Description	After sending a DCC to an E-MTA with lines registered with the CMS, the LED for line 2 flashes continuously.
Impact	Operational
Occurrence	High

2.3.90 IPv6: Modem Resets in Traffic on Certain DHCP Server

Tracking No.	PROD00130279
Description	Failures of the E-MTA have been observed during traffic runs in cases where the E-MTA is supported by the ISC DHCP Server. This problem has not been reproduced on other provisioning servers. In this scenario, the MTA may not recover after a DHCP renewal during traffic testing.
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.60

2.3.91 TM60X: Power Failure During Upgrade Causes DSP Corruption

Tracking No.	PROD00147108
Description	ARRIS has identified a rare condition in which the ARRIS TM60X E-MTAs may fail to complete a successful firmware download as a result of the E-MTA previously experiencing a DSP image header corruption related to a power failure during a previous firmware download. A TM60X E-MTA in this state will not recover and will continuously reboot. This issue is documented in AFB-09-0309.
Impact	Service

Occurrence	Rare

2.3.92 PacketACE: EURO MIB Objects Use CableLabs OIDs

Tracking No.	PROD00141089
Description	In PacketACE 12.4, some MIB objects incorrectly use the CableLabs OIDs in EURO mode. This issue is resolved in PacketACE 12.6.
Impact	Operational
Occurrence	High

2.3.93 SIP: SIP INFO Feature Switch for Hook Flash Not Shown in MIB Object

Tracking No.	PROD00138817
Description	A new feature was added to provide new SIP INFO support for hook flash reporting. To enable this feature, the sipCfgSipFeatureSwitch bit 0x00000020 must be added to the configuration file. This update was not included in the MIB Object so it is not displayed if an SNMP MIB walk is performed.
Impact	Operational
Occurrence	High

2.3.94 Three-way Calling (3WC) May Not Operate Correctly Depending Upon Flash Hook Timing

Tracking No.	PROD00141815 & PROD00142427
Description	When trying to setup a 3WC, the originator (caller A) calls a second user (caller B). Once that call is established, Caller A can then perform a flash hook to call caller C. During the ring back tone for Caller C, if Caller A flashes back to talk to Caller B, the 3WC can no longer be setup.
Impact	Service
Occurrence	High

2.3.95 System Description Discrepancy with Option 43

Tracking No.	PROD00142611
Description	On the E-MTA, the Boot Rom value in Option 43 is not the

	same as in the sys description.
Impact	Operational
Occurrence	High

2.3.96 TM60X Models Have the Same Value in SysObjectID

Tracking No.	PROD00142947
Description	The MIB Object, sysObjectID, previously displayed the integer '9' for all TM60X models. The firmware has been updated so the model value will now be displayed. To uniquely identify model types, ARRIS recommends the use of the SysDescr MIB Object.
Impact	Operational
Occurrence	High

2.3.97 *82 Feature May Fail if Automatic OSI Enable

Tracking No.	PROD00143160
Description	An issue was observed with a call server sending a DLCX message after receiving the *82 command. When this occurred, it triggered the automatic OSI feature on the E-MTA so the call was disconnected.
Impact	Service
Occurrence	High

2.3.98 SIP: sipCfgCallWaitingStarCodeSurvivesReset May Not be Stored Correctly in NVM

Tracking No.	PROD00138478, PROD00138512
Description	Setting this MIB allows persistent storage of a user requesting that Call Waiting be disabled in a SIP application. However, this MIB currently may become out of sync with the current storing of the MIB in NVM. This could result in Call Waiting not being disabled after setting of the MIB. This MIB is also not reset by the factory defaults MIB.
Impact	Service
Occurrence	High

2.3.99 Enrollment Inform Trap Incorrectly Sent	
Tracking No.	PROD00138913
Description	When using the ARRIS proprietary BASIC.1 provisioning method, the E-MTA sends an enrollment inform trap. This message should not be sent for this provisioning method.
Impact	Operational
Occurrence	High

The following issues were resolved in release 6.1.57

2.3.100 SIP Euro: Noise After Call Waiting Tone	
Tracking No.	PROD00137803
Description	Just after the Call Waiting tone is played, there is brief annoying noise on the line around the time callerid should be displayed. Not an issue.
Impact	Service
Occurrence	High
2.3.101 PacketACE: MIB Processing Errors	
Tracking No.	PROD00131305
Description	PacketACE is not able to process correctly double indexed MIBs in the pktcSigDevToneTable and pktcSigDevMultiFreqToneTable.
Impact	Operational
Occurrence	High
2.3.102 Euro: Incorrect MIB Format in SNMP Traps	
Tracking No.	PROD00136894
Description	MIBs tcomPktcMtaDevCorrelationId and tcomPktcMtaDevMacAddress are not correctly formatted when output as part of an enrollment and status inform trap.

Impact	Operational
Occurrence	High

2.3.103 SIP: Unexpected SUBSCRIBE for Event ua-profile

Tracking No.	PROD00139989 & PROD00138459
Description	After a SIP line registers, it is succeeded by a SUBSCRIBE message for the UA-Profile event. This is unnecessary and is typically ignored or nack'd by the proxy. The SUBSCRIBE may be repeated a few times, depending on retransmit timers.
Impact	Operational
Occurrence	High

2.3.104 IP Filters for Ethernet Port also Discards USB Packets

Tracking No.	PROD00141246
Description	If the MIB object docsDevFilterIpTable with the docsDevFilterIPIfIndex is set to discard Ethernet packets, the packets will also be discarded for the USB port even when that port is not specified. E-MTA is operating per the specification and this was a test case failure.
Impact	Service
Occurrence	High

2.3.105 Provisioning Stops if ACK Not Received

Tracking No.	PROD00142177
Description	In MTA-25 if we do not receive the ACK, the PacketCable specification says that provisioning should stop and manual interaction is required. Since all the information is available for the E-MTA to function, the E-MTA will now come on-line even if the ACK is not received.
Impact	Operational
Occurrence	Rare

2.3.106	Some MTA Traps and Syslogs were Not Provided
Tracking No.	PROD00141941
Description	The logs for the following events were not sent via snmp or syslog trap; however, these logs were still reported to the local log. This issue appeared on the following events: • MTA event 3 (Voice Line State Change) • MTA event 16 (MTA TFTP: Successful) • MTA event 26 (MTA PROV: Successful
Impact	Operational
Occurrence	High

2.3.107	SIP: Repeat Dialing Deficiencies
Tracking No.	PROD00140172
Description	When Repeat Dialing is activated during busy indication, there is no indication to the user that the feature is successfully activated (i.e. busy tone is not broken when dialing and there is no confirmation tone played). The same is true when Repeat Dialing is cancelled during initial dialing. There is no indication that the feature has been successfully cancelled.
Impact	Operational
Occurrence	High

2.3.108	docsDevCpeTable Not Populated
Tracking No.	PROD00141247
Description	When queried via SNMP, the docsDevCPETable is not populated with the attached CPE equipment.
Impact	Operational
Occurrence	High

2.3.109	SNMP Entity of 0.0.0.0 Allowed for MTA
Tracking No.	PROD00143173 & PROD00141908
Description	MTA should stop provisioning when receiving an option 122 Sub-Option 3 of 0.0.0.0. However, the MTA will continue with provisioning and accept a valid IP address if one is provided.
Impact	Service

Occurrence	High
2.3.110 IPv6: arrisCmDevDhcpSvrParameters MIB Object Incorrect	
Tracking No.	PROD00133400
Description	The arrisCmDevDhcpSvrParameters MIB tree is set incorrectly when the CM is in IPv6 mode.
Impact	Operational
Occurrence	High
2.3.111 IPv6: Recovery Problems from RF Cut	
Tracking No.	PROD00140241, PROD00139882
Description	When running in IPv6 mode, the E-MTA may have trouble recovering. In this scenario, the E-MTA may perform and extra reset automatically or require a power cycle to come back on-line.
Impact	Service
Occurrence	High
2.3.112 SNMP Traps Incorrectly Sent to Trap Server	
Tracking No.	PROD00139562
Description	The SNMP MIB object, pktcDevEvFixedReporting, was being set to 01.00 to send traps to the local server only but they were still being sent to all servers.
Impact	Operational
Occurrence	High
2.3.113 SIP: Advanced Calling Features Work Only on Line 1	
Tracking No.	PROD00139853, PROD00139876, PROD00140424, PROD00141900
Description	Through lab testing, ARRIS has identified some advanced SIP calling features that will only function correctly when used on line one of the E-MTA. The features are listed below: • Hot Line • Repeat Dialing (*62) • Advanced Flash RO (Euro Only)

	Advanced Flash Feature Call Transfer
Impact	Service
Occurrence	High

2.3.114 CMTS UCC Takes Longer than Expected to Complete

Tracking No.	PROD00139230
Description	When performing a UCC from the CMTS, the E-MTA takes several seconds to recover. Due to the expended recovery time, a T3 event may occur.
Impact	Service
Occurrence	High

2.3.115 WTM: 'R active' Command Does Not Validate Values

Tracking No.	PROD00139461
Description	When using the 'r active' command to write values to the WTM, the prior firmware did not validate the information was correct which could result in the writing of an incorrect IP address.
Impact	Service
Occurrence	Low

2.3.116 WTM552: Reboot Loop When Corrupt Application Image on E-MTA

Tracking No.	PROD00139786
Description	If during the firmware download process the application image becomes corrupt on a WTM552, the E-MTA will become stuck in a reboot loop. This only occurs when the CM configuration file contains MTA MIBs. This issue was presented in AFB-09-0303.
Impact	Service
Occurrence	Rare

2.3.117 LVM Key and Policy MIBS state a Read/Write Status but are only Writable via Configuration File	
Tracking No.	PROD00138138
Description	LVM Key and Policy MIB objects state a Read/Write status but are only writable via configuration file. The description has been modified to reflect the firmware code which states that the LVM Key will fail unless present in the configuration file.
Impact	Operational
Occurrence	High
2.3.118 Information Mismatch in CLI Command http_all	
Tracking No.	See Below
Description	• PROD00132023: In the http_all CLI command, the System Information for individual lines will sometimes display provisioned, although the line is not. • PROD00138040: DHCP server address wrong under 'Server IP Information'
Impact	Operational
Occurrence	High
2.3.119 IPv6: TM6XX Registration Issue	
Tracking No.	PROD00135353
Description	TM6XX has problems in some TS 6.1 releases with registration when IPv6 was being used. Registration would fail with DHCP never appearing to start.
Impact	Service
Occurrence	High
2.3.120 Extreme Robustness Testing Issues Resolved	
Tracking No.	See Below
Description	• PROD00130818: Additional reset after docsDevResetNow due to exception during a firmware reset. • PROD00138096: Software Reset
Impact	Service

Occurrence	Rare

The following issues were resolved in release 6.1.51D

2.3.121 E-MTA Reset Approximately Every 10 days	
Tracking No.	PROD00139683
Description	An issue exists whereby modems will reset after the system uptime reaches approximately 10 days. This issue could affect voice service if the subscriber is off-hook when the problem occurs. This issue was presented in AFB-09-0304.
Impact	Service
Occurrence	High
2.3.122 Persistent Line Status is not Preserved over a Modem Reset	
Tracking No.	PROD00140366
Description	When using the persistent line status feature, the status was not preserved over a modem reset. This issue was only seen on certain provisioning methods such as BASIC.1.
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.51

2.3.123 Management Message Print Out to CLI Session	
Tracking No.	PROD00138266
Description	When logging into the CLI, unexpected management messages that the firmware does not recognize would be noted in the

	capture. This can greatly impact the ability to troubleshoot existing issues. In the TS 6.1 release, the management messages can be disabled from tracing. Below is are some message examples:
	
	`DIST: Unexpected management Message Type->33 - Discard message`
	`DIST: Unexpected management Message Type->34 - Discard message`

Impact	Operational
Occurrence	High

2.3.124 SIP: 3-Way Calling Fails if DisableSessionTimers Enabled

Tracking No.	PROD00137281, PROD00138911
Description	If the sipCfgSipFeatureSwitch, 'disableSessionTimers', is enabled a problem has been observed where a 3-way call drops the existing call.
Impact	Service
Occurrence	High

2.3.125 WTM552: Wired CPE Equipment Ages Out of CPE Table

Tracking No.	PROD00133493
Description	The Least Frequently Used (LFU) algorithm will age out CPEs that are hardwired to the WTM552 in addition to wireless CPEs. No Fix Planned – Works per design and was a test plan failure.
Impact	Service
Occurrence	High

2.3.126 RIPv2: CLI Command Fails

Tracking No.	PROD00125462
Description	If RIPv2 is enabled on non-WTM552 devices, the command to provide RIP message traces, ripdebuglevel in the rip directory, does not properly turn on the tracing capability.
Impact	Operational
Occurrence	High

2.3.127 SIP: INFO Message for Hook Flash Not Standard	
Tracking No.	PROD00136596
Description	If the operating environment requires a hook flash to be reported via the INFO message, the E-MTA will send a non-standard value which is compatible with the Broadsoft solution.
Impact	Service
Occurrence	High
2.3.128 Problems with DTMF Tones	
Tracking No.	PROD00136676
Description	Certain devices can have trouble handling DTMF events from the E-MTA. This is a result of the interim packets for the DTMF Tone reporting total event duration (amount of time) greater than the final declared duration.
Impact	Service
Occurrence	High
2.3.129 ARRIS E-MTAs may Lose Layer 3 Connectivity after Dynamic Channel Change Request	
Tracking No.	PROD00138654
Description	An issue exists whereby modems running TS6.1.47 and all prior TS6.1 releases may lose layer 3 connectivity after any one of initialization technique options 2, 3, or 4 are commanded by the Cable Modem Termination System (CMTS) for Dynamic Channel Change Requests (DCC-REQ). This issue was presented in AFB-09-0301/AFB-09-0301R.
Impact	Service
Occurrence	High
2.3.130 SIP G729: Rapid Hook Transition May Cause Voice Line Failure	
Tracking No.	PROD00137853
Description	After rapid on-hook / off-hook transitions, the E-MTA goes into a state where the line on the SIP proxy server shows registration. When this occurs, an incoming call will receive

	treatment tones. This issue is cleared by waiting up to 10 minutes or resetting the unit. ARRIS has identified a DSP error when this occurs that is resolved in this release.
Impact	Service
Occurrence	High

2.3.131 IPv6: Unable to Recover E-MTA

Tracking No.	PROD00137971
Description	Multiple configurations have been observed in which E-MTAs are unable to complete the recovery process when in IPv6 mode.
Impact	Service
Occurrence	High

2.3.132 DHCP Renewal Failure May Cause Temporary Loss of Connectivity

Tracking No.	PROD00134378
Description	A problem has been observed where the E-MTAs occasionally lose their Layer 3 IP connectivity after a CM DHCP Renewal Failure. This occurs due to a buffer exhaustion problem which is resolved in this release. This issue was presented in AFB-09-0302.
Impact	Service
Occurrence	High

2.3.133 Noise During Playout of RT Tone on Poland Templates

Tracking No.	PROD00123368
Description	If using the Poland or Poland1010 country template, then the playout of the Ringback Tone (RT) maybe too loud and cause static on some phone sets.
Impact	Service
Occurrence	High

2.3.134 Information Mismatch in CLI Command http_all	
Tracking No.	PROD00132096
Description	In the http_all CLI command, the LC states expressed under "Line Card state machine" and "CallP state machine" don't match the same values displayed under "Line LC State Callp State", in a later section. The first listing is the correct value.
Impact	Service
Occurrence	Low
2.3.135 TM602 Phase II Battery Hold-up Time Slightly Below Expectation	
Tracking No.	PROD00138309, PROD00138385
Description	A problem has been identified where the TM602 Phase II battery backup time is slightly below expectation (approximately 10 minutes). This issue is resolved with a new battery charger firmware release in this load.
Impact	Service
Occurrence	Low
2.3.136 SIP: Unable to Handle Messages Larger than 2048	
Tracking No.	PROD00136679
Description	The E-MTA is not able to properly process received SIP messages of a length greater than 2048 bytes.
Impact	Service
Occurrence	High
2.3.137 TM608: 8 Cell Battery Holdup Time Insufficient	
Tracking No.	PROD00137572, PROD00138385
Description	A problem has been observed where the 8 cell battery pack in a TM608 does not support the specified holdup time when 5 or more lines are off-hook.
Impact	Service
Occurrence	High

2.3.138 LVM: Policy 2 Fails When Non-DOCSIS QAM Present	
Tracking No.	PROD00137981, PROD00138016
Description	Loop Voltage Management (LVM) Policy 2 does not maintain the line voltage in the presence of a non-DOCSIS QAM on the RF link.
Impact	Service
Occurrence	High
2.3.139 IPv6: MTA IP Address Not Accessible via Telnet, SSH or Web Page	
Tracking No.	PROD00133337, PROD00133338
Description	Telnet, SSH and HTML access to the MTA's IP address is not available if the CM is configured in IPv6 mode.
Impact	Operational
Occurrence	High
2.3.140 RIPv2: Web Page Displays Subnet Mask Incorrectly	
Tracking No.	PROD00132932
Description	The RIP web page, when enabled, only displays classful subnet masks information.
Impact	Operational
Occurrence	High
2.3.141 RIPv2: Incorrect Advertisement Sent to CMTS	
Tracking No.	PROD00137691
Description	For non-WTM devices, RIPv2 has been observed incorrectly advertising a subnet mask of 16 instead of the expected provisioned value. This causes the setup of RIPv2 to fail.
Impact	Service
Occurrence	High

2.3.142	LVM: Occasional Loss of Loop Voltage
Tracking No.	PROD00122626
Description	The E-MTA, while recovering from a reset or loss of RF, may first attempt to lock onto a non-DOCSIS QAM before finally locking onto the correct carrier. In these scenarios, it is possible that the E-MTA may briefly experience a clocking failure. This failure causes loop voltage to be dropped from provisioned lines momentarily.
Impact	Service
Occurrence	Rare

2.3.143	Battery Serial Number Invalid During AC Failure
Tracking No.	PROD00133492
Description	A problem was identified where the EPROM could be incorrectly populated after AC Failure. This could result in an invalid battery serial number being displayed.
Impact	Operational
Occurrence	Low

2.3.144	Access to WRM WebGUI via WAN IP cannot be Disabled if NAT Status is Disabled
Tracking No.	PROD00139647
Description	If access to NAT is disabled, the WAN IP address cannot be used to disable the WRM WebGUI.
Impact	Operational
Occurrence	High

2.3.145	WTM Not Flushing CPE Devices
Tracking No.	PROD00139916
Description	On the WTM552, the 'DHCP Client List' in the webGUI shows entries (IP address, Host Name, MAC Address) for CPEs that have not been connected since the DHCP lease expired. The IP addresses are also not released.
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.47

2.3.146 allowCpeOverFlowWrap Feature Caused MTA MAC Address Discarded	
Tracking No.	PROD00133488
Description	The MTA MAC address was discarded in the event the allowCpeOverflowWrap feature was enabled and MacCpeAllowed limit was met.
Impact	Service
Occurrence	High
2.3.147 Maximum Number of CPEs Bypass the MaxAllowedCPE TLV Limit	
Tracking No.	PROD00133494
Description	It was observed that in the event the allowCpeOverFlowWrap and maxCPEBypass features were enabled, the number of CPEs added to the CPE table surpassed the allowable limit set using the MaxAllowedCPE TLV.
Impact	Service
Occurrence	Medium
2.3.148 ifPhysAddress.5 provides incorrect MAC address of the USB interface	
Tracking No.	PROD00127787
Description	The MIB ifPhysAddress.5 provides incorrect MAC address of the USB interface.
Impact	Operational
Occurrence	High
2.3.149 DCC Request on E-MTA Recovery May Cause Failure	
Tracking No.	PROD00130604

Description	If an E-MTA receives a DCC request early in its recovery cycle, the E-MTA may fail to recover and require a manual reset.
Impact	Service
Occurrence	Low

2.3.150 IPv6: CLI Output Does Not Display the Prefix or Lease Time Correctly

Tracking No.	PROD00132230
Description	The CLI output “System>dhcp” failed to display the prefix or lease time of the E-MTA when operating in IPv6 mode.
Impact	Operational
Occurrence	High

2.3.151 IPv6: DHCP and TOD Server IPs incorrectly displayed in CLI

Tracking No.	PROD00120362
Description	The DHCP and TOD server IP addresses were incorrectly displayed when executing the http_all or sysinfo command from CLI.
Impact	Operational
Occurrence	High

2.3.152 IPv6: Walking the docsDevServerDhcpAddress and docsDevServerDhcpAddressType MIB Object Returns IPv4 Data

Tracking No.	PROD00133392, PROD00133393
Description	While walking the docsDevServerDhcpAddress and docsDevServerDhcpAddressType MIB objects, the query returned data in IPv4 format instead of IPv6.
Impact	Operational
Occurrence	High

2.3.153 ‘*’ Code Feature Failure

Tracking No.	PROD00133663

Description	Certain failures have been noted with '*' code features that require additional digit collection to be activated. This problem has been noticed against the Nortel call server solution.
Impact	Service
Occurrence	High

2.3.154 Extreme Robustness Testing Issues

Tracking No.	See Below
Description	• PROD00132995 – E-MTA reset with a TLB Exception. • PROD00136139 – Watchdog Reset occurring due to issue with state machine become unavailable during RF cut when MTA is pulling the configuration file via TFTP. • PROD00133590 – RF cuts during registration resulted in a small memory leak.
Impact	Service
Occurrence	Rare

2.3.155 TM508/512: Telemetry State Displayed Incorrectly After External Power Disconnected

Tracking No.	PROD00133565
Description	The telemetry states on ARRIS MultiLine E-MTAs failed to indicate that the external power cable had been disconnected. "Cable Disconnected" has been added as a new state for this event.
Impact	Service
Occurrence	Medium

2.3.156 Consecutive RF Cuts may Cause TLB Exception

Tracking No.	PROD00130465
Description	Consecutive RF cuts within a short period of time caused the E-MTA to issue a TLB exception error and reboot.
Impact	Service
Occurrence	High

2.3.157 SIP: PacketACE 12.1 and 14.1 MIB Object Issues	
Tracking No.	PROD00135367
Description	PacketACE releases 12.1 and 14.1 had several issues when attempting to create an MTA SIP configuration file. The following problems have been resolved. - ARRIS MIB sipCfgT1 not recognized - Export of file shows values in HEX - IPv6 support for network address information
Impact	Operational
Occurrence	High
2.3.158 SingleMAC: All Calls Fail When an FQDN is Used	
Tracking No.	PROD00134654
Description	All calls fail to complete when a Fully Qualified Domain Name(FQDN) is used for the call agent in ARRIS singleMAC provisioning due to DNS query failure.
Impact	Service
Occurrence	High
2.3.159 WTM552: WRM MAC Address Discarded When allowCpeOverFlowWrap Feature was Enabled	
Tracking No.	PROD00134027
Description	The WRM MAC address was discarded in the event the allowCpeOverflowWrap feature was enabled and MacCpeAllowed limit was met.
Impact	Service
Occurrence	Medium
2.3.160 E-MTA Autonomous Reset Observed During Traffic Run	
Tracking No.	PROD00128316
Description	Traffic has been observed to be impacted when an autonomous E-MTA reset occurs during a long traffic run. The traffic recovers automatically. The reason for the E-MTA reset is under investigation.

Impact	Service
Occurrence	Rare

2.3.161 Provisioning Method Indicator on Webpage Maybe Incorrect

Tracking No.	PROD00134993
Description	The Provisioning Method displayed on DHCP tab of the webpage only reflected the arrisMtaDevProvMethodIndicator MIB and may have not matched the actual method. The fix now reflects ARRIS and PacketCable 1.5 methods.
Impact	Operational
Occurrence	High

2.3.162 WM550 / WM602: Corrected Downstream Errors Reported

Tracking No.	PROD00125134
Description	On the wireless products, WM550 and WM602, at low symbol rates corrected downstream errors were being reported when no issue was occurring.
Impact	Operational
Occurrence	High

2.3.163 PacketCable 1.5 MTA Option 60 Subtype Error

Tracking No.	PROD00135563
Description	When using PacketCable 1.5 provisioning, the MTA option 60 suboption 5.1 is sending a value of 0 instead of 1.
Impact	Operational
Occurrence	High

2.3.164 Remote Tone Not Heard When Connection Mode is Set to Inactive

Tracking No.	PROD00131684
Description	During a call setup, when the remote connection is set to inactive using a MDCX or CRCX, the remote tone request s:rt is not heard.

Impact	Service
Occurrence	High

2.3.165 WTM552: Fails PacketCable Security

Tracking No.	PROD00136139
Description	The WTM552 MTA failed provisioning in PCSEC mode. The WTM552 stayed in "Telephony-DHCP" status.
Impact	Service
Occurrence	High

2.3.166 arrisMtaDevPacketcableProvisioningFlow MIB Object May Show Incorrect Value

Tracking No.	PROD00135407
Description	The arrisMtaDevPacketcableProvisioningFlow MIB object does not show the correct value when the arrisMtaDevSpecialConfigurationOverrideEnable MIB is in the CM configuration file and option 122 sub-option 6 is set to BASIC.1 or 2.
Impact	Operational
Occurrence	High

2.3.167 TM402: DHCP Task Issue on Upgrade

Tracking No.	PROD00135400
Description	A problem was discovered on the TM402P where an upgrade from TS 5.2 to TS 6.1 would cause the DHCP task to become non-operational. This was a result of a timing problem that has now been corrected.
Impact	Service
Occurrence	High

2.3.168 Line Card Incorrectly in Protection State after RF Event

Tracking No.	PROD00131588
Description	Lines on an E-MTA have been observed to enter the protection state after an RF event occurs. This is happening on provisioned and unprovisioned lines. The issue is resolved by

	resetting the E-MTA
Impact	Service
Occurrence	Low

2.3.169 DCC or UCC may Cause the Registration State and LED Sequence to be Displayed Incorrectly

Tracking No.	PROD00123286
Description	A Dynamic Channel Change (DCC) or Upstream Channel Change (UCC) may cause the E-MTAs registration state and LED sequence to be displayed incorrectly. The Event tab on the webpage and CLI incorrectly display the CM provisioning state as "Complete"; however, the MTA portion is displayed as "Not Started." The LED sequence also incorrectly displays the state to match the registration state where the Telephony l and Telephony 2 LEDs are turned off.
Impact	Operational
Occurrence	High

2.3.170 TM512 Resets during Bulk Traffic Testing

Tracking No.	PROD00137598
Description	When running bulk traffic testing for the TM512, the E-MTAs were resetting occasionally due to an exception. This was the result of an incorrect function being occasionally called.
Impact	Service
Occurrence	Low

2.3.171 Traffic Results Below Baseline on TM508 and TM512

Tracking No.	PROD00128411, PROD00120024
Description	Traffic results on the TM508 and TM512s running the TS 6.1 load have shown a 0.01 to 0.10% drop in call completion rate.
Impact	Service
Occurrence	Rare

2.3.172 Downgrade/Upgrade Issue When arrisCmDevDSTPolicy MIB in Configuration File	
Tracking No.	PROD00134537
Description	Due to a problem corrected in TS 6.1.38B (PROD00133559), if the DST MIB is set in the configuration file a downgrade to a release older than TS 6.1.38B will result in future upgrade failures. This issue causes a problem that results in an invalid CVC.
Impact	Service
Occurrence	High
2.3.173 pktcSigDefMediaStreamTos Is Not Applied to RTP Packet	
Tracking No.	PROD00134150
Description	The RTP packets are being sent with the default value for TOS byte settings regardless of the pktcSigDefMediaStream MIB. Customer configuration problem.
Impact	Operational
Occurrence	High
2.3.174 SIP: sipCfgSessionExpire MIB for terminating E-MTA does not work correctly	
Tracking No.	PROD00130430
Description	When the sipCfgSessionExpire MIB object is set for the terminating E-MTA, the terminating E-MTA does not respond back to the originating device with the correct session expiration value after receiving the INVITE.
Impact	Service
Occurrence	High
2.3.175 E-MTA may fail if the CPE connected to the USB port is powered down	
Tracking No.	PROD00128512
Description	Cases have been observed in which the E-MTA is impacted (data and voice) if the CPE connected to the USB port is

	powered down. Could not reproduce.
Impact	Service
Occurrence	High

2.3.176 E-MTA accessible by telnet but not SNMP

Tracking No.	PROD00127078
Description	Certain cases have been observed in which if the E-MTA does not properly initialize after a reset or RF cut, the E-MTA is accessible by telnet but not accessible by SNMP.
Impact	Operational
Occurrence	Low

2.3.177 PacketACE Does Not Support SigDevToneTable MIB Objects

Tracking No.	PROD00122374
Description	PacketACE does not provide support to display or create entries for the SNMP MIB Objects of the SigDevToneTable for North America PacketCable. If these MIBs are present in the configuration file, they will be viewed by PacketACE as unknown OIDs. Configuration issue identified.
Impact	Operational
Occurrence	High

2.3.178 Recovery from KRB_ERROR takes too Long when Establishing Security Association with CMS

Tracking No.	PROD0095336
Description	A clock skew error in the AP-REPLY from the CMS during establishment of the security association with the CMS causes the E-MTA to retransmit the AP-REQUEST until the clock skew is within an acceptable range. No fix planned.
Impact	Operational

Occurrence	High

2.3.179 ifLinkUpDownTrapEnable Does Not Disable E-MTA Traps

Tracking No.	PROD0087199
Description	The ifLinkUpDownTrapEnable MIB can be set and read via SNMP, but is not working correctly as traps cannot be disabled. No fix planned.
Impact	Operational
Occurrence	High

2.3.180 E-MTA Stops Responding to SNMPv1 Queries

Tracking No.	PROD00084037
Description	SNMPv1 queries to the E-MTA IP address using the same source port repeatedly may not be answered. This could cause an NMS that continually polls the E-MTA, using SNMP v1, to inadvertently mark the unit as 'not providing service' even though the unit is providing service. This problem does not occur with SNMPv2 coexistence. No fix planned.
Impact	Operational
Occurrence	High

2.3.181 No Voice Path during PCMA or PCMU 30ms Call Setup

Tracking No.	PROD0082607
Description	When a call is setup to use 30ms packetization, there is no speech path on the eMTA. No fix planned at this time.
Impact	Operational
Occurrence	High

2.3.182 E-MTA Records Only 50 Events in the pktcDevEventTable MIB Object	
Tracking No.	PROD00075338
Description	After the E-MTA records 50 events in the pktcDevEventTable MIB table, the E-MTA will no longer record a new event. No fix planned at this time.
Impact	Operational
Occurrence	High
2.3.183 E-MTA Stops Responding to SNMP if Row Created with CreateAndGo or CreateAndWait	
Tracking No.	PROD00070616
Description	In SNMP coexistence mode, rows for the E-MTA must be created with a rowStatus of active. If either createAndGo or createAndWait is used, the E-MTA stops responding to SNMP. No fix planned at this time.
Impact	Operational
Occurrence	High
2.3.184 E-MTA Acceptance of DHCP Sub-Option 3 as 0.0.0.0	
Tracking No.	PROD00067816
Description	The E-MTA incorrectly accepts an offer from the primary DHCP server with suboption 3 equal to 0.0.0.0. The E-MTA should continue to look for a valid offer from a back-up server instead of accepting the original offer. No fix planned at this time.
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.38C

2.3.185 TM608: Unable to Complete 14th Call Leg	
Tracking No.	PROD00134294
Description	Previously when using a CISCO BTS call server solution, a 14th call leg could not be established on a TM608. This occurs when 3-way calling is enabled for multiple lines.
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.38B

2.3.186 SIP: MuSecurity Malformed Packet Test Failure	
Tracking No.	PROD00125609, PROD00134109
Description	In the SIP release, the MuSecurity test for malformed packets is failing causing the E-MTA to have an exception error.
Impact	Service
Occurrence	High (In Given Scenario)
2.3.187 arrisCmDevDSTPolicy MIB Causes Upgrade Issue	
Tracking No.	PROD00133559, PROD00134539
Description	The arrisCmDevDSTPolicy MIB Object in the configuration file prevents an upgrade from an NCS load to a SIP load.
Impact	Service
Occurrence	High
2.3.188 arrisCmDevDSTPolicy Does Not Work if TOD Fails	
Tracking No.	PROD00134112
Description	During the provisioning phase of E-MTA recovery, if the Time of Day (TOD) server is not available or has a delayed response, the arrisCmDevDSTPolicy MIB will not be correctly processed.
Impact	Operational
Occurrence	Rare

The following issues were resolved in release 6.1.38

2.3.189 TM608: Unable to Support 9th Simultaneous Call	
Tracking No.	PROD00133156
Description	A limitation was observed on the TM608 where it could only support 8 simultaneous calls. When the 9th connection was established, no audio stream was available.
Impact	Service
Occurrence	High
2.3.190 arrisCmDevTftpBlkSize fails with certain TFTP Servers	
Tracking No.	PROD00132411
Description	The ARRIS feature to allow the TFTP Server block size to be configured can cause TFTP failures if the server does not participate in blksize negotiation.
Impact	Operational
Occurrence	High
2.3.191 WTM552: Loss of Filters if arrisCmDevRouterMode Included in Configuration File	
Tracking No.	PROD00131759
Description	All LLC and IP filters in the CM configuration file are lost on the WTM552 when the arrisCmDevRouterMode MIB Object is in the CM configuration file.
Impact	Operational
Occurrence	Medium
2.3.192 No Dial Tone After an E-MTA Reset (via the reset button) with Phone Off-Hook	
Tracking No.	PROD00124160
Description	If a phone is off-hook and the reset button on the E-MTA is pressed, the E-MTA will reset but the line will not return to service. Problem was resolved as no fault found.
Impact	Service

Occurrence	High

2.3.193 G729: E-MTA may Experience Static Using G729 CODEC

Tracking No.	PROD00129912
Description	E-MTAs operating using the G729 compression CODEC may experience static curing a telephone call. The static is heard only after the connection is established and bother parties are silent. This issue was presented in AFB-08-0315.
Impact	Service
Occurrence	High

2.3.194 MTA sends duplicate DNS Request

Tracking No.	PROD00130815
Description	The MTA is sending a second DNS query before the original DNS query has timed out.
Impact	Operational
Occurrence	High

2.3.195 SIP: sipCfgCallWaitingStarCodeSurvivesReset does not Permit Persistent Storage of Call Waiting Enabled

Tracking No.	PROD00130329
Description	Setting this MIB allows persistent storage of a user requesting that Call Waiting be disabled. However, this MIB currently will not store the MIB being enabled persistently.
Impact	Service
Occurrence	High

2.3.196 Operational errors with 3 arrisWrm MIBs

Tracking No.	PROD00130116
Description	1) The MIBs arrisWrmDevVsEnableStatus and arrisWrmDevSapStatus display incorrectly when disabled (they show 0 =Not Defined)

	2) MIB arrisWrmDevMfEnable cannot be disabled in certain conditions
Impact	Operational
Occurrence	High

2.3.197 Call Forwarding (*72) Incompatibility Issue with Siemens HiQ

Tracking No.	PROD00127402, PROD00131030
Description	When a CPE initiated a *72, the E-MTA may miss the '*' resulting in a failed Call Forwarding attempt. This issue was observed with the Siemens HiQ CMS.
Impact	Service
Occurrence	Medium

2.3.198 DOCSIS 2.0 Auto Detection Feature on E-MTA may not Activate DOCSIS 2.0 Mode

Tracking No.	PROD00131033
Description	A problem has been identified whereby an E-MTA may not automatically convert to DOCSIS 2.0 via the ARRIS DOCSIS 2.0 Auto Detection Feature. With this issue, approximately 10 percent of the units were observed to stay in DOCSIS 1.1 mode while attempting to complete the auto detection. This resulted in the units becoming stuck in a reboot loop until the DOCSIS 2.0 Upstream channel(s) was removed. This issue was presented in AFB-08-0314.
Impact	Service
Occurrence	Low

2.3.199 Changes to Argentina Tone and Ring Template

Tracking No.	PROD00130369
Description	The call waiting tones (WT1-4) and distinctive ringing cadences (r0-r7) do not match the latest requirements for Argentina.
Impact	Service
Occurrence	High

2.3.200 E-MTAd may cease to Provide Dial Tone if CMTS MAC Address is learned as CPE on E-MTA	
Tracking No.	PROD00131196, PROD00102012
Description	With this problem, an E-MTA may learn the CMTS MAC address as a CPE. This problem is the result of a reflection on the Ethernet port from the CPE of the CMTS MAC address back to the E-MTA. This has been observed when the Ethernet device on the CPE changes speeds (specifically on an Apple Computer in Stand-by Mode). Once in this state, the E-MTA will not provide service and fails to respond to MTA and CM IP pings. This issue was presented in AFB-08-0316.
Impact	Service
Occurrence	High
2.3.201 IPv6: IPv4 Filters Cause IP Connectivity Loss	
Tracking No.	PROD00132551
Description	IPv4 filters in the CM configuration file cause the CM to discard IPv6 packets.
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.34A

2.3.202 TM602, TM604, TM608, DTM602 Improvements in Battery Holdup Times	
Tracking No.	PROD00132471
Description	TM602, TM604, TM608, DTM602 modems have cases in which they do not meet their advertised maximum holdup times.
Impact	Service
Occurrence	High

The following issues were resolved in release 6.1.34

2.3.203 arrisMtaDevDspHandleNonPhaseReversedTone MIB Setting Incorrectly Applied when Transmitting	
Tracking No.	PROD00130118
Description	The arrisMtaDevDspHandleNonPhaseReversedTone MIB is designed to help with devices that do not support nonphase reversed tone in the receive direction. This MIB is incorrectly being applied in the transmit direction. This results in some failures on devices that do not support nonphase reversed tones such as a fax machine.
Impact	Service
Occurrence	High
2.3.204 IPv6: TM402 and TM502 Failure on Boot when Using IPv6	
Tracking No.	PROD00129974
Description	The ARRIS E-MTA was attempting to process the RA event prior to the modem interfaces becoming operational. This was observed with the unsolicited RA interval (on the CMTS) set to 3 seconds.
Impact	Service
Occurrence	High
2.3.205 Illegal Quote in Caller Name Drops Call	
Tracking No.	PROD00130289
Description	If the Caller Name is received with an illegal quote character, the call is dropped. With this change, the call is accepted and the Caller Name is ignored.
Impact	Service
Occurrence	High
2.3.206 Updates to upsAlarmDescr MIB Object	
Tracking No.	PROD00113352
Description	Several items for the upsAlarmDescr MIB object have been updated in support of PacketCable 1.5. The type of MIB was

	changed to “Autonomous” and additional MIB states added.
Impact	Operational
Occurrence	High

2.3.207 Duplicate Trap for Voice Line State Change

Tracking No.	PROD00125443
Description	A duplicate SNMP Trap message was being sent for a voice line state change.
Impact	Operational
Occurrence	High

2.3.208 MIB Objects Updated

Tracking No.	PROD00129468, PROD00129876
Description	The arrisMtaDevPwrSupplyFullChargeTime MIB object was updated to correct a spelling error and to add a more detailed model description. The arrisMtaDevPwrSupplyHighestTemperatureTime MIB Object was updated for models that do not support this MIB (aka no battery). This MIB will now display a default time of January 1, 1970 for units that do not support this feature.
Impact	Operational
Occurrence	High

2.3.209 E-MTA No Dial Tone Due to Forward Disconnect State and Lease Expiration

Tracking No.	PROD00127036
Description	If the OSI delay value was set to 0, during a reset of the MTA or lease expiration a line could become stuck in a forward disconnect state.
Impact	Service
Occurrence	Rare

2.3.210 E-MTA Not Processing DHCP NAKs

Tracking No.	PROD00128027

Description	When the E-MTA was in the renewal or rebind state, DHCP NAKs were not being processed. The NAKs were also not stored under the DHCP logging history.
Impact	Service
Occurrence	Rare

2.3.211 MaxCPE Value Increases Over Time

Tracking No.	PROD00117809
Description	The MaxCPE count could increase over time beyond the value specified in the configuration file.
Impact	Service
Occurrence	Rare

2.3.212 E-MTA May Reset due to Negative Acknowledgement (NAK) Destined for Other Devices

Tracking No.	PROD00128484
Description	The MTA will reset as a result of a broadcast DHCP NAK being processed by the MTA while the MTA is waiting on a response to a DHCP renewal request. Due to the short amount of time the E-MTA is in the renewal or rebind state expecting DHCP messages, this issue is believed to be a rare occurrence. However, a MTA reset will result in No Dial Tone for a very brief period of time and drop any existing calls. This issue was presented in AFB-08-0313
Impact	Service
Occurrence	Rare

2.3.213 Delete Connection Failure from CMS May Result in Stuck Connection

Tracking No.	PROD00125487
Description	A rare double failure scenario has been observed when the CMS fails to delete a connection and send a DLCX. In this situation the DLCX is not provided after initial disconnect or after the audit detects the connection. When this occurs, the connection becomes stuck and requires an E-MTA reset to clear the issue.

Impact	Service
Occurrence	Rare

2.3.214 Debug Level REPL 18 with Other Actions May Cause E-MTA Reset

Tracking No.	PROD00126434
Description	In cases when REPL 18 is enabled and other actions occur, the E-MTA has been observed to reset. This issue was directly noted when the tracing was enabled and the 'stand-by' button was pressed on the E-MTA.
Impact	Service
Occurrence	Rare

2.3.215 CM IP Address Not Pingable After CMTS Upgrade

Tracking No.	PROD00126415
Description	A rare issue has been observed where the CM IP Address was not pingable after the CMTS was upgraded. The problem is related to a corruption of the DS Buffer in the E-MTA.
Impact	Service
Occurrence	Rare

2.3.216 SNMP MIB arrisMtaDevPwrSupplyBatteryTest cannot be changed for TM402

Tracking No.	PROD00127308
Description	The arrisMtaDevPwrSupplyBatteryTest MIB should not have previously supported a write option for the TM402. This resulted in inaccurate reporting for the MIB. For this release, the MIB has been modified to not accept a write request from a TM402 and to accurately display the battery status when read.
Impact	Operational
Occurrence	Low

2.3.217 Exception Occurs When CLI Call Processing Command Executed

Tracking No.	PROD00126206

Description	When running the CLI command 'CID 0' from the Call Processing Menu, the E-MTA will issue an exception and reboot. This command is only used by the direction of technical support when troubleshooting an issue.
Impact	Service
Occurrence	High

2.3.218 MTA Feature Switch for Basic.2 Provisioning Change Adds Additional Time to Provisioning Complete

Tracking No.	PROD00126986
Description	The MTA feature switch, ppCfgMtaFeatureSwitch, can be used to disable the need for a NAK when using Basic.2 provisioning. In this configuration, the MTA took an additional minute to complete provisioning. The feature switch is snmpInformBypass.
Impact	Operational
Occurrence	High

2.3.219 SIP: Warmline Feature Works Only on Line 1

Tracking No.	PROD00126922
Description	The warmline feature, which dials a pre-provisioned number, only works properly on the first line of the E-MTA.
Impact	Service
Occurrence	High

2.3.220 Extreme Robustness Test Issue – Zero MOS Score

Tracking No.	PROD00114671
Description	After recovery from a cable cut during registration, a few E-MTAs have reported a MOS score of 0.
Impact	Service
Occurrence	Low

2.3.221 Accepted G729A Codec is Advertised in SDP as G729

Tracking No.	PROD00111796

Description	When MTA receives a CRCX or MDCX requesting the codec G729A, it accepts the request, but responds with SDP listing G729 as offered codec. Third party MTAs may require G729A in the SDP response, in order to setup call.
Impact	Service
Occurrence	Low

2.3.222 Endpoint Link Up Trap Not Sent at Proper Time During Registration

Tracking No.	PROD00058432
Description	The E-MTA sends the SNMP Endpoint Link Up trap after acquiring the E-MTA configuration file instead of after registration with the call server.
Impact	Operational
Occurrence	High

The following issues were resolved in release 6.1.21

2.3.223 CPE Device Not Pingable When Non-Zero Value Set for Certain MIB Objects

Tracking No.	PROD00103213
Description	For an ICMP packet, docsDevFilterIpDestPort and docsDevFilterIpSourcePort MIB values should be ignored but previously were not. This resulted in a inability to ping the CPE devices when the MIB objects were set to a non-zero value.
Impact	Operational
Occurrence	High

2.3.224 No Dial Tone After Using CLI ‘tune’ Command

Tracking No.	PROD00104022, PROD00103893
Description	On rare occasion, an issue has been reported where using the ‘tune’ command manually via the CLI results in the MTA not having dial tone.
Impact	Service

Occurrence	Rare
2.3.225	DEA Causes Code Word Errors on QAM256
Tracking No.	PROD00103968
Description	Approximately 10 seconds after locking onto a QAM256 downstream channel, a burst of codeword errors may be experienced due to the DEA feature.
Impact	Operational
Occurrence	High
2.3.226	Jitter Buffer Not Working with 40 msec of Jitter
Tracking No.	PROD00104821
Description	Injecting 40 ms of jitter into the packet flow for a voice call results in a significantly decreased MOS score when the packetization rate was 20 ms.
Impact	Operational
Occurrence	High
2.3.227	SSH Logins Can Cause E-MTA Failure
Tracking No.	PROD00106778
Description	On rare occasions at the end of an active Telnet/SSH debug session, the E-MTA may experience an issue that requires a hard reset of the modem to recover.
Impact	Service
Occurrence	Rare
2.3.228	WTM552 Upgrade Issue
Tracking No.	PROD00106925, PROD00105431
Description	An issue has been identified where the Wireless Router Module (WRM) image may fail to work after an upgrade of the firmware image on the WTM552. This is a result of a corrupt image being applied to the WRM flash or failure for the flash to become active. This was presented in AFB-07-0322.
Impact	Service

Occurrence	High
2.3.229 Learned CPEs Not Returned From docsDevCpeTable MIB Object	
Tracking No.	PROD00112058
Description	A walk of the docsDevCpeTable MIB object does not provide a full list of learned CPE.
Impact	Service
Occurrence	High
2.3.230 E-MTA Autonomous Reset	
Tracking No.	PROD00112474
Description	An occasional E-MTA reset has been observed due to a SDRAM refresh problem.
Impact	Service
Occurrence	Rare
2.3.231 MTAs Provisioned in 'BASIC 1' Negotiating Security	
Tracking No.	PROD00113906
Description	A small number of E-MTAs provisioned with Basic 1 have been observed to continue to unnecessarily negotiate with the KDC server for security keys. This should not occur with a provisioning method of Basic 1.
Impact	Operational
Occurrence	Low
2.3.232 MTAs Reject Configuration File if DHCP Is Incorrect	
Tracking No.	PROD00114802
Description	If the MTA is using a simplified provisioning method, then the MTA will fail to configure if the DHCP option 122 sub-option 6 is set.
Impact	Service
Occurrence	High (in give configuration)

2.3.233 SingleMAC E-MTA Cannot Configure Distinctive Ringing	
Tracking No.	PROD00114678
Description	When using the 'singleMAC' provisioning method, the E-MTA does not accept ringing cadences provided in the configuration file.
Impact	Service
Occurrence	High
2.3.234 'Detect_tone' CLI Command Causes E-MTA Reset	
Tracking No.	PROD00123839
Description	The console command 'detect_tone 1 1'will cause the E-MTA to reset.
Impact	Service
Occurrence	High
2.3.235 Noise Issue on TM508/TM512 Line After Dialing	
Tracking No.	PROD00118015, PROD00120410
Description	The dialing party on the TM508/TM512 may hear a brief noise (20ms) after dialing the last digit before the other end is connected. This problem is only seen when one line is active and another call is initiated on an adjacent line.
Impact	Service
Occurrence	Low
2.3.236 pktcNcsEndPntConfigStutterDialToneTO MIB Ignored	
Tracking No.	PROD00126585
Description	The pktcNcsEndPntConfigStutterDialToneTO MIB settings are ignored by the E-MTA and the default value of 16 seconds is used.
Impact	Service
Occurrence	High

2.3.237	E-MTA is Not Able to Register with Call Server
Tracking No.	PROD00126820
Description	In cases where the operator's DHCP/Provisioning servers are overloaded, the E-MTA can fail to properly complete provisioning and secure communications with the call server. This is a result of the MTA sending a registration complete message prior to security provisioning completing.
Impact	Service
Occurrence	Low
2.3.238	PHS CallpFeature Switch Setting Does Not Work
Tracking No.	PROD00126819
Description	When using the SNMP command to set the callpfeature switch, it will not take affect when trying to disable PHS.
Impact	Service
Occurrence	High
2.3.239	SIP: E-MTA Responds to G729A CODEC
Tracking No.	PROD00121333
Description	When E-MTA receives a request to negotiate for G729A CODEC, it accepts the request but responds with G729. This can potentially be rejected since the CODEC is not G729A.
Impact	Service
Occurrence	High
2.3.240	'System' MIBs Not Accessible from MTA IP Address
Tracking No.	PROD00121818
Description	'System' MIB Group, OID 1.3.6.1.2.1.1, is only accessible from the CM IP Address.
Impact	Operational
Occurrence	High

2.3.241 SIP: Reduced Number of Available Compressed CODECs	
Tracking No.	PROD00121886
Description	If the SIP E-MTA offers a compressed CODEC such as G729 when negotiating a call but does not use the compressed CODEC, the resources are not released. This could prevent other available compressed CODECs from working.
Impact	Service
Occurrence	High
2.3.242 CLI Tones Command May Not Show All Provisioned Elements of Tone	
Tracking No.	PROD00122310
Description	When using the tones command from the Callp CLI, the last elements provisioned using the IETF tone MIBs may not be shown. The tone and all its provisioned elements are played correctly when requested.
Impact	Operational
Occurrence	High
2.3.243 Ring Cadence Limit is Four On/Off Cycles	
Tracking No.	PROD00122811
Description	When modifying the RxCadence MIBs any on/off cycles after the fourth one are dropped and not played. This can be a limitation for distinctive ringing.
Impact	Operational
Occurrence	High
2.3.244 LAN Duplex Mode Not Displayed	
Tracking No.	PROD00120308
Description	On the status web page, the display of the interface LAN's speed is missing the duplex mode.
Impact	Operational
Occurrence	High

2.3.245 Setting pktcNcsEndPntConfigStatus Does Not Set ifAdminStatus	
Tracking No.	PROD00120052
Description	Setting the pktcNcsEndPntConfigStatus to a non-active value does not set the ifAdminStatus MIB to similar non-active value.
Impact	Operational
Occurrence	High
2.3.246 '*67' Occasionally Fails to Process Digits and Complete Call	
Tracking No.	PROD00121196
Description	If using the *67 feature against certain call agents, it is possible that the E-MTA will not be able to correctly gather the dialed digits and the call will fail. This occurs when the '7' digit is depressed for a long period of time.
Impact	Service
Occurrence	Medium
2.3.247 Display Values Incorrect After Extended Period of Time	
Tracking No.	PROD00116577
Description	The sysUptime is calculated incorrectly after 49 days and can display a large number on the webGUI. The CM DHCP and MTA DHCP time will have the same issue after 124 days. This problem is not service affecting and is only an internal display problem.
Impact	Operational
Occurrence	High
2.3.248 Dynamic Channel Change Problems with SCDMA	
Tracking No.	PROD00110210
Description	E-MTAs, TM5XX and TM602, have issues with the Dynamic Channel Change feature when SCDMA modulation is used. When an ARRIS E-MTA, departs from an SCDMA US channel, it may fail to lock onto the new DS channel. The problem may also occur even when the destination US is not an

	SCDMA channel as long as the originating US is an SCDMA channel. In the docsDevEvText of the CM, the following text appears: "DCC aborted unable to acquire new downstream channel".
Impact	Service
Occurrence	High

2.3.249 Reset Timeout Timer Not Re-started After resetMTA When Using LVM Policy 3

Tracking No.	PROD00107458
Description	The LVM Policy 3 timer for monitoring when to remove Loop Voltage is not restarted after an MTA only reset (resetMTA), which causes the provisioned Reset Timeout value (arrisMtaDevLoopVoltageResetTimeout) to be ignored.
Impact	Operational
Occurrence	High , if using LVM Policy 3 and resetMTA

2.3.250 SIP: PRACK Authorization Not Supported

Tracking No.	PROD00109506
Description	If a challenge is received in response to a PRACK message, the MTA will not re-send the PRACK message with the authentication header.
Impact	Service
Occurrence	Operational

2.3.251 SSH: 128 Byte Memory Leak

Tracking No.	PROD00109068
Description	Approximately 128 bytes are lost with each successful login via SSH.
Impact	Operational
Occurrence	High

2.3.252 SIP: Call Forwarding Setting Should Survive a Reset	
Tracking No.	PROD00105999
Description	Currently, Call Forwarding settings do not survive a reset of the E-MTA. This means that if a customer uses a star code to setup call forwarding and the E-MTA is reset, call forwarding will not occur with the next call. No fixed planned for this issue as Call Forwarding handled differently in PacketCable 2.0.
Impact	Service
Occurrence	High

2.3.253 Wireless Router Module DNS Client Incorrectly Running on LAN Side of Router on WTM552	
Tracking No.	PROD00111956
Description	The DNS client that downloads the WRM configuration file uses an IP address on the router's LAN subnet. When NAT is turned off, this can prevent the WRM configuration file from getting downloaded if the tftp-server-name is set as a FQDN instead of an IP address.
Impact	Operational
Occurrence	High

2.3.254 Issuing !logout When Using NetTerm Causes E-MTA Reset	
Tracking No.	PROD00114377
Description	A load exception occurs if !logout is issued to the CLI when using the NetTerm telnet application.
Impact	Service
Occurrence	High

2.3.255 arrisMtaDevPwrSupplyConfigReplaceBatTime MIB Object Value May Be Incorrect After Battery Type Change	
Tracking No.	PROD00113726

Description	When using the MIB object arrisMtaDevPwrSupplyConfigReplaceBatTime to control the replacement time for the battery, the value can be recalculated incorrectly when the battery is replaced by a different type of battery (example: replace 4 cell with 8 cell battery), leading to incorrect replace times.
Impact	Operational
Occurrence	High, in the described scenario

2.3.256 WTM552 Wireless Router Module (WRM) Does DHCP Twice

Tracking No.	PROD00115595
Description	The wireless router module on the WTM552 performs the DHCP sequence twice when going through provisioning.
Impact	Operational
Occurrence	High

2.3.257 Model 5 E-MTAs Incorrectly Display “Battery Test Scheduled” Messages

Tracking No.	PROD00116461
Description	“Battery Test Scheduled” messages should only be displayed by Model 4 E-MTAs, not Model 5 E-MTAs.
Impact	None
Occurrence	High

2.3.258 MTA Lease Time May Be Displayed Incorrectly after Renew/Rebind

Tracking No.	PROD00116577
Description	E-MTAs have been observed in the field to have a lease time much larger than the value given during MTA DHCP renew/rebind. This is a display error and service is not impacted.
Impact	Service
Occurrence	Low

2.3.259 WTM552 WRM Web Page Access Blocked When in AP Mode	
Tracking No.	PROD00117317
Description	In AP mode, if WRM LAN IP is on a different subnet than the PC making the request for the WRM web page, then the WRM page will be unavailable.
Impact	Operational
Occurrence	High
2.3.260 Telnet Console Active after ResetMTA Command Executed	
Tracking No.	PROD00117019
Description	Telnet sessions (using MTA IP address) that are active fail to be discontinued by the ResetMTA command.
Impact	Operational
Occurrence	High
2.3.261 E-MTA sends MTA-25 SNMP Inform for ARRIS Basic.1 provisioning and requires acknowledgement	
Tracking No.	PROD00125160, PROD00125546
Description	The E-MTA incorrectly sends an SNMP Inform (step MTA-25) as part of the ARRIS Simplified PacketCable Provisioning Method (ARRIS Basic.1). The E-MTA requires acknowledgement of this Inform from the SNMP Entity in order for the provisioning sequence to complete. If the Inform is not acknowledged, the provisioning process stops.
Impact	Service
Occurrence	High
2.3.262 MTA Reset Causes Loop Voltage Drop	
Tracking No.	PROD00126318
Description	Regardless of the loop voltage management settings, if an MTA reset occurs from a T4, the CLI, or via firmware, the loop voltage is removed until the line interface is restored.
Impact	Service

Occurrence	Low

2.3.263 Extreme Robustness Testing Currently Under Investigation

Tracking No.	See Below
Description	• PROD00102746: A single E-MTA reset with "Resetting with reason SYSLOG_DELAY." The above issue is currently under investigation as of the time of this release.
Impact	Service
Occurrence	Low

2.3.264 Delay Detecting RF Cut on TM602B Using LVM Policy 4

Tracking No.	PROD00109156
Description	On a TM602B unit using Loop Voltage Policy 4, the modem can take up to 35 seconds to detect an Upstream RF cut.
Impact	Operational
Occurrence	High, TM602B

3 Letter of Operational Considerations

The Letter of Operational Considerations is to inform operators of any system considerations for the Touchstone Firmware that may affect service, operations, or maintenance for this product release.

3.1 Operational Considerations

Listed are known Operational Considerations that have been identified during ARRIS' standard quality testing that can affect normal operation. Any additional items discovered during field deployments would be noted in future *Release Notes and Letter of Operational Consideration* or *Field Bulletins*. Unless specifically noted, it is ARRIS' intention to have all considerations resolved in future product releases.

Considerations that apply to a specific feature implementation will be designated with one of the following prefixes included in the heading:

- X-JC : Japan experimental NCS package
- EU : European Provisioning Sequence
- SIP : SIP Call Sequence
- T.38 : T.38 Feature Specific Issue
- SSH : Secure Shell
- IPv6: Internet Protocol version 6

3.1.1 WTM652/WTM552: Daylight Savings Time (DST) Setting Not Applied to WRM Portion of WTM652/WTM552

Tracking No.	PROD00153267
Description	Currently the E-MTA gets the correct time offset of -14400 in the DHCP Option during DST changes. However, the WRM portion is one hour behind even if in "Systems Settings" under the "Wireless Router" tab, the time zone is correctly set to "Eastern US GMT-5" Time Zone AND the "Automatically Adjust Daylight Saving" box is checked. DST setting seems to be ignored by WRM.
Impact	Operational
Occurrence	Low
Workaround	None

3.1.2 TM508/TM512 Reports "unknown" as a State in the upsBatteryStatus MIB	
Tracking No.	PROD00152821
Description	Currently, the TM508/TM512 reports a state of ‘unknown’ for the ‘upsBatteryStatus’ MIB.
Impact	Operational
Occurrence	High
Workaround	None

3.1.3 CODEC Negotiation Failure with G.729AB	
Tracking No.	PROD00152157
Description	The E-MTA is reporting Codec Negotiation Failure when it receives a CRCX containing G.729AB.
Impact	Service
Occurrence	High
Workaround	The use of G729 does not have any issues.

3.1.4 ifAdminStatus.16 Change from Down to Up Causes MTA Provisioning Issue	
Tracking No.	PROD00151824
Description	When an MTA is originally set down using the ifAdminStatus.16 MIB, the MTA will not get provisioned if the MTA status is changed back to up.
Impact	Service
Occurrence	High
Workaround	Reset the E-MTA after changing the ifAdminStatus.

3.1.5 E-MTAs Getting Into Sysbusy Due to DSP Failure	
Tracking No.	PROD00148576

Description	E-MTAs found to be in “Endpoint Not Ready” state when audited and in “Sysbusy” state at the switch, which appears to be related to DSP failures.
Impact	Service
Occurrence	Low
Workaround	Reset the E-MTA

3.1.6 E-MTAs Passing Ethernet Traffic with IfAdminStatus.1 DOWN

Tracking No.	PROD00150527
Description	Some E-MTAs are reported to be passing traffic via the Ethernet port even if the latter has been disabled via IfAdminStatus.1 in the CM config file. Issue seems to be happening only on certain CPEs.
Impact	Operational
Occurrence	Low
Workaround	None

3.1.7 Extreme Robustness Testing Currently Under Investigation

Tracking No.	See Below
Description	• PROD00150227 Tlb load exception found during registration when an RF cut occurs. • PROD00147571 Watchdog reset found during registration when an RF cut occurs.
Impact	Operational
Occurrence	Rare
Workaround	None

3.1.8 arrisMtaDevPwrSupplyOverTempAlarmControl MIB Walk Displays Invalid Value

Tracking No.	PROD00151287
Description	MIB walk of arrisMtaDevPwrSupplyOverTempAlarmControl should return either disable(0), enable(1), pendingenable(2), or pendingdisable(3) but for TM402, TM508 and TM512 returns a negative value which is invalid.

Impact	Operational
Occurrence	Low
Workaround	None

3.1.9 arrisMtaDevBatteryEprom MIB Walk Displays Invalid Value

Tracking No.	PROD00151290
Description	MIB walk of arrisMtaDevBatteryEprom returns incorrect string.
Impact	Operational
Occurrence	Low
Workaround	None

3.1.10 SNMP MIB Object pktcSigDefCallSigDscp Issue

Tracking No.	PROD00148979
Description	The SNMP MIB object, pktcSigDefCallSigDscp, does not work when set via SNMP. Using this MIB object in the configuration file works as expected.
Impact	Operational
Occurrence	High
Workaround	Use SNMP MIB in configuration file.

3.1.11 MDD Override Feature

Tracking No.	PROD00148619, PROD00148552
Description	When using the MDD Override MIB, if this MIB is set to 'ignore' in the configuration file the E-MTA will record this setting in flash but fail to reset. This could result in the E-MTA maintaining the incorrect IP address.
Impact	Operational
Occurrence	High
Workaround	Reset the E-MTA

3.1.12 Remote VOIP Metrics Record Not Generated	
Tracking No.	PROD00147051
Description	When the arrisDevMtaVqmEnableRemote SNMP MIB Object is set to '0', no remote VOIP metrics data is generated in the delete connections.
Impact	Operational
Occurrence	High
Workaround	Set the arrisDevMtaVqmEnableRemote MIB to '2'.

3.1.13 TM402 Returns Invalid Value for Some Battery MIBs	
Tracking No.	PROD00147315
Description	The TM402 may report invalid information for the following MIBs: • upsEstimatedMinutesRemaining • upsEstimatedChargeRemaining All of the TM402s reported either 310 or 409 minutes when fully charged.
Impact	Operational
Occurrence	Low
Workaround	None

3.1.14 EXCLUDE Statements in MIB File Causes Compatibility Issues with Incognitio	
Tracking No.	PROD00148243
Description	The following MIB objects include EXCLUDE statements and cause an incompatibility issue when an attempt is made to load the files into Incognito. • pktcSigDevToneTable • pktcSigDevMultiFreqToneTable • pktcSigDevToneFreqRepeatCount
Impact	Operational
Occurrence	High
Workaround	Customer should remove the EXCLUDE statement from MIB objects prior to importing the MIBs into Incognito.

3.1.15 WTM652: Battery Ordering Code Incorrect Displayed on WebGUI	
Tracking No.	PROD00145275
Description	The WTM652G does not display the correct battery ordering code on the WebGUI. The order number is displayed as "Ordering Code Unavailable: 13".
Impact	Operational
Occurrence	High
Workaround	The SNMP MIB object, arrisMtaDevBatteryOrderingCode, displays the correct information.
3.1.16 IPV6: E-MTA Does Not Work Properly with the IP Filters	
Tracking No.	PROD00145097
Description	When operating in IPV6 mode, the IP filters in the configuration file are not properly applied to the packets.
Impact	Service
Occurrence	High
Workaround	None
3.1.17 IPV6: E-MTA Reboots When Configuring Incorrect DS Frequency	
Tracking No.	PROD00145096
Description	When an incorrect frequency is configured in the CM configuration file in IPV6 mode, the E-MTA will reboot instead of starting DS scanning again.
Impact	Service
Occurrence	High
Workaround	Remove DS Frequency from configuration file.
3.1.18 WTM Client IP Filters Do Not Work	
Tracking No.	PROD00145088

Description	Client IP Filters when set via the GUI \ Wireless Router \ Firewall settings do not block traffic or work as specified when attempting to block based on the date and time.
Impact	Operational
Occurrence	High
Workaround	Setup filters to always be applied to the WTM.

3.1.19 IPV6: Bridging of Data Packets Does Not Work

Tracking No.	PROD144881
Description	The ability to support the bridging of IPV6 packets from the CM to the CPE devices does not work.
Impact	Operational
Occurrence	High
Workaround	None

3.1.20 IPV6: Extended MTA Recovery Time

Tracking No.	PROD00144766
Description	When several E-MTA resets occur in succession, the MTA takes longer to recover when the CM is using an IPV6 address. The MTA recovery time is extended by approximately 2 minutes.
Impact	Service
Occurrence	High
Workaround	None

3.1.21 SIP: MWI Fails to Deactivate on G.729

Tracking No.	PROD00144050
Description	When SIP Application uses G.729, the Message Waiting Indicator (MWI) will not deactivate even after SIP Notify message to cancel MWI is sent to the modem following message retrieval.
Impact	Operational
Occurrence	High

Workaround	None

3.1.22 Rare E-MTA Reset May Be Observed When Calling Specific PSTN

Tracking No.	PROD00144426
Description	When calling between two PSTN networks through a SIP trunk, a rare condition has been observed where the E-MTA may reset and drop the call.
Impact	Service
Occurrence	Rare
Workaround	None

3.1.23 CM MIB Walk Omits WRM MIBS

Tracking No.	PROD00143828
Description	When performing an SNMP MIB walk with the CM IP address, the walk will omit WRM MIBs if the SNMP MIB walk starts with a CM MIB.
Impact	Operational
Occurrence	High
Workaround	Walk the WRM MIB Objects separately from CM MIB Objects.

3.1.24 PacketACE Installation on Newer Windows Platforms May Fail

Tracking No.	PROD00143292
Description	PacketACE installations on newer Window's Operating systems such as Windows Vista and Windows 7 (Beta) may experience a failure. This is the result of a security check in these new operating systems around User Account Control (UAC) that Window's has enabled. This will result in the PacketACE license key being needed each time the tool is utilized.
Impact	Operational
Occurrence	Low

Workaround	Disable UAC in newer Window's Platforms.

3.1.25 Some PacketCable 1.5 Battery MIBs Not Supported

Tracking No.	PROD00140852
Description	The upsAlarmAwaitingPower, upsAlarmOutputOffAsrequired, and upsAlarmShutdownPending are required to be implemented in PacketCable 1.5. These MIBs are currently not supported by the firmware.
Impact	Operational
Occurrence	High
Workaround	None

3.1.26 IPv6: Duplicate Address Detection (DAD) is not functioning properly

Tracking No.	PROD00139690
Description	When CM is using IPv6 mode, the Duplicate Address Detection capability does not correctly detect cases of duplicate addresses.
Impact	Service
Occurrence	High
Workaround	Manually validate addresses are unique.

3.1.27 SIP: SRV Penalty Box Does Not Use Sixth Entry

Tracking No.	PROD00138093
Description	With the SRV penalty box full (5 entries in the penalty box), the sixth SRV record is never tried.
Impact	Service
Occurrence	High
Workaround	None

3.1.28 IPv6: arrisCmDevDhcpNoSvcImpact MIB Object Not Supported

Tracking No.	PROD00114299

Description	The arrisCmDevDhcpNoSvcImpact MIB object currently supported for IPv4 currently does not work for IPv6. This feature enables functionality to not perform a DHCP renewal during an active call.
Impact	Service
Occurrence	High
Workaround	None

3.1.29 PacketACE Issue with sipProvisionedCodecsArray MIB Object

Tracking No.	PROD00132125
Description	PacketACE incorrectly places a space in the sipProvisionedCodecsArray MIB object. A space is incorrectly inserted after the semicolon delimiter.
Impact	Operational
Occurrence	High
Workaround	Use of another Configuration File Editor.

3.1.30 Web Page Provisioning Method Incomplete

Tracking No.	PROD00134993
Description	If using one of the standard PC1.5 Provisioning Flows, then the value for the Provisioning Method on the DHCP web page will be incomplete.
Impact	Operational
Occurrence	High
Workaround	Walk the SNMP MIB object arrisMtaDevPacketcableProvisioningFlow.

3.1.31 IPv6: Unable to recover if CMTS Neighbor Solicit Interval is too long

Tracking No.	PROD00133332
Description	The E-MTAs are unable to recover if the Neighbor Solicit (NS) interval on the associated CMTS is set too high (i.e., 30 seconds).

Impact	Service
Occurrence	Low
Workaround	Set the interval to less than 7 seconds. The default value is 1 second.

3.1.32 Voice Quality Metrics Inaccuracies on Short Duration Calls and with Gap and Burst Metrics

Tracking No.	PROD00111959, PROD00111960, PROD00112034, PROD00112128, PROD00112310, PROD00112465
Description	The eMTA is reporting inaccurate gap and burst measurements results on short duration calls (i.e., under 10-seconds) . There are also inaccuracies in VQM on short duration (i.e., under 10-second) calls.
Impact	Operational
Occurrence	High
Workaround	None

3.1.33 SIP: Appending Too Many Authentication Headers Causes Load Exception Error

Tracking No.	PROD00116409
Description	When a request (INVITE/SUBSCRIBE/REGISTER) message is sent to the proxy and responded to by a 401/407 message, a new authorization is added to that request transaction. If multiple 401/407 messages are received, the list of authorization headers grows. If too many authorization headers are added an exception may occur.
Impact	Service
Occurrence	High, in described scenario
Workaround	None

3.1.34 NVM Data Corruption Prevents E-MTAs from Upgrading

Tracking No.	PROD00111555
Description	Mfg Code and Mfg CVC Access Start Times get corrupted with a time that is after the firmware image signing time. Affected E-MTAs are not able to upgrade.
Impact	Operational

Occurrence	Low
Workaround	None

3.1.35 Calls May Fail to Setup When a=X-pc-codec Parameter Received in SDP

Tracking No.	PROD00110381
Description	When receiving a CRCX or MDCX NCS message containing SDP with parameter a= X-pc-codec, the message is rejected with reason 510 Protocol Error. This will cause a call to fail setup.
Impact	Service
Occurrence	High
Workaround	None

3.1.36 Duplicate Information in Local Connection Options (LCO) Allowed for RTCP-XR and T.38

Tracking No.	PROD00107856
Description	The RTCP-XR and T.38 CallP features should return error code 534 (Inconsistent LCO) if duplicate information is found in the Local Connection Options (LCO) of a CRCX or MDCX message.
Impact	Compliance Only
Occurrence	Low
Workaround	None

3.2 Upgrade Considerations

The following considerations are important to take into account when upgrading to this firmware release.

Automatic OSI Feature Switch Update

Starting TS 6.1.60, if the feature is enabled by including the arrisMtaCallpFeatureSwitch MIB object with a bit value of 0x20000000, OSI will now only be applied to the terminating lines. If the feature is active, and a line originates a call, OSI will not be applied to the originating line if call is completed and line remains offhook.

Default Changes to D11Plus Load Build Variant

A few changes have been made in this release to the default behaviour of the D11PLUS load build variant. The changes are detailed below:

- The NVM value of the hardware revision for TM602G Phase 2 products will be incremented by 50 for the sysDescr hardware field. This will allow the TM602G Phase 2 units to be differentiated from the Phae 1 models. For example, a TM602 Phase 2 with a hardware revision of 4 will display the below in the sysDescr field.

  ```
  ARRIS DOCSIS 2.0 / PacketCable 1.0 Touchstone
  Telephony Modem <<HW_REV: 54;
  ```

- PROD00146689: The arrisMtaDevLoopVoltageResetTimeout will be multiplied by a value of 3. This is a result of the configuration download taking slightly longer in TS 6.1 resulting in a possible drop of loop voltage during a reset. This multiply will allow the same configuration file setting while increasing the timeout value to allow recovery of the E-MTA from a reset.

- PROD00146884: During the DHCP Renew/Rebind process, if the SNMP entity changes the E-MTA will not take action until all lines are on-hook. This allows an SNMP entity change to not be service affecting.

- PROD00146893: The SDP has been modified to remove static payload types (PCMU, PCMA, G728, G729, etc.) from the rtpmap attributes of the SDP.

CM550 Upgrade to TS 6.1

If a Cable Modem (CM) is running a TS 6.1 release prior to the RTM load (TS 6.1.47), the CM must first be downgraded to an earlier release such as CM 6.0.15 and then upgraded to the TS 6.1 RTM release. This problem is caused by the size of the CM firmware load prior to the RTM release.

DOCSIS 2.0 Advertisement

For this release, all E-MTAs will advertise as DOCSIS 2.0 after upgrading to TS6.1 release. This is not service affecting if the customers network supports DOCSIS 2.0 but customers who have networks that do not support DOCSIS 2.0 may see issues.

Deprecated Feature Switch

The enableIpv6Multicast feature switch in the arrisCmDevModemFeatureSwitch is no longer needed. This feature switch has been reclaimed for future use and should not be used in a configuration file.

Firmware Load Change for Hardware Variant

In releases prior to TS6.1, a firmware image for support of the Touchstone Telephony Models 4, 5, and 6 existed. For this release, the firmware image has been broken up to support the Model 4 and Model 5 release and a second image to support the Model 6 release. The Multi-line image for the TM508 and TM512 has also been renamed as well as the WTM images. Please refer to the load extension table in section 1 to understand which firmware load goes with each hardware variant.

4 Customer Service and Support

For Technical Support, please visit the ARRIS Technical Support web page at http://ask.arrisi.com.

Other methods for contacting the support organization are listed below.

North America

Email	techsupport.na@arrisi.com
Telephone	(888) 221 9797 (US toll free) +1 678 473 5656 (Worldwide)
Office Hours	8:00 a.m. to 8:00 p.m. EST

South America – Chile

Email	techsupport.cala@arrisi.com
Telephone	+56 2 678 4500
Office Hours	9:00 a.m. to 6:00 p.m. (Chile local time).

Europe – Amsterdam, The Netherlands

Email	techsupport.europe@arrisi.com
Telephone	+31 20 311 2525
Office Hours	8:30 a.m. to 17:30 p.m. CET

Japan – Tokyo

Email	techsupport.japan@arrisi.com
Telephone	+81 (0) 3 5371 4142
Office Hours	9:30 a.m. to 6:00 p.m. (Tokyo local time)

Asia – Tokyo, Japan

Email	techsupport.asia@arrisi.com
Telephone	+81 (0) 3 5371 4142
Office Hours	9:30 a.m. to 6:00 p.m. (Tokyo local time)

Korea – Seoul

Email	techsupport.asia@arrisi.com
Telephone	+82 2 6007 2880
Office Hours	9:30 a.m. to 6:00 p.m. (local time)

Worldwide – North America

Email	techsupport@arrisi.com
Telephone	USA +1 678 473 5656

Emergency support is available after normal business hours for customers with a support contract ID via the listed contact information.

Appendix A: Compliance Matrix

DOCSIS 1.1/2.0	CW53 ECNs
SP-BPI+	I12
SP-CMCI	I10
SP-RFIv2.0	I11
SP-OSSIv2.0	I10
SP-eDOCSIS	I13
PacketCable 1.0	CW28 ECNs
PKT-SP-DQOS	I12
PKT-SP-CODEC	I06
PKT-SP-EC-MGCP	I11
PKT-SP-MIBS	I10
PKT-SP-MIB-SIG	I09
PKT-SP-PROV	I11
PKT-SP-SEC	I12

Touchstone®
Telephony Firmware

Release 6.1.95

Release Notes and Letter of Operational Consideration

Version: 1.0
Status: Released