mPower Edge Release 6.0.x – API Delta

This document lists implemented changes to the mPower API for release 6.0.x compared to 5.3.x. **NOTE:** The following information is subject to change without notice.

All the changes are marked in RED.

Contents

Commands

API supports a set of special actions using the Command URL (api/command). Execute a command using a POST request call method. A RESTful Get request returns an array of all available commands.

Continuous Ping feature is implemented in mPower R.6.0 and corresponding commands are added: **continuous_ping_start** and **continuous_ping_stop**.

The **radio_rfsurvey** command is no longer available in R.6.0.

Element	Type	Description
bootloader_console	ACTION	Controls bootloader access and silent mode configuration status
bootloader_lock	ACTION	Controls password authentication to access the device bootloader
call_home_disable	ACTION	Disables call home feature with DeviceHQ
call_home_enable	ACTION	Enables call home feature with DeviceHQ
checkin_to_devicehq	ACTION	Triggers a check-in to DeviceHQ
clean_oem	ACTION	Clears user-defined default configurations from memory and returns the device to factory default
continuous_ping_start	ACTION	Starts continuous ping
continuous_ping_stop	ACTION	Stops continuous ping and shows the ping results
ddns_update	ACTION	Pushes DDNS information to the configured DDNS server
download_config	ACTION	Downloads the current configuration
firmware_check	ACTION	Uploads firmware file to device and checks it (POST mtr upgrade bin file)
firmware_pre_upgrade	ACTION	Prepares system for firmware upgrade (i.e. shuts down Node-RED, frees space for the upgrade package)
firmware_upgrade	ACTION	Upgrades device firmware
legacy_sync	ACTION	Synchronizes legacy configurations
loglvl_debug	ACTION	Sets the systems logging level to DEBUG
loglvl_info	ACTION	Sets the systems logging level to INFO
loglvl_trace	ACTION	Sets the systems logging level to TRACE
loglvl_warning	ACTION	Sets the systems logging level to WARNING
node_red_status	ACTION	Operational status of the Node-RED server
passwd	ACTION	Changes or resets user login information including username, ID, and password

Element	Type	Description
ping	ACTION	Send a set of ICMP pings to an address or FQDN, interface can be ANY, LAN, WIFI, WIFI-AP, CELLULAR, or ETHERNET (POST 'ip' and 'interface' in JSON)
ppp_start	ACTION	Start PPPD
ppp_stop	ACTION	Stop PPPD
ppp_toggle	ACTION	Toggle PPPD
radio	OBJECT	The API supports a set of special actions using the Command Radio URL (api/command/radio). Execute a command using a POST request call method. A RESTful Get request returns an array of all available commands.
check_sim_status	ACTION	Checks SIM card status (DEPRECATED)
cmd	ACTION	Sends a string directly to the cellular radio, timeout must be in milliseconds
firmware_check	ACTION	Uploads radio firmware file to device and checks it (POST radio firmware upgrade bin file)
firmware_pre_upgrade	ACTION	Prepares system for radio firmware upgrade (i.e. shuts down Node-RED, Lora Network Server, frees space for the upgrade package)
firmware_upgrade	ACTION	Initiates radio firmware upgrade
set_mdn	ACTION	Sets the mobile directory number
supported_cellular_modes	ACTION	Gets a list of cellular modes that are supported on the modem.
unlock_sim_card	ACTION	Unlocks SIM card
upgrade_firmware	ACTION	Upgrades radio modem firmware. LEGACY
vzw_reset_class3_apn	ACTION	Reset the current APN value and obtain APN from the Verizon network.
radio-cmd	ACTION	Sends a string directly to the cellular radio, timeout must be in milliseconds
radio_activate	ACTION	Attempts to activate the on-board cellular radio (CDMA)
radio_cmd	ACTION	Sends a string directly to the cellular radio, timeout must be in milliseconds
~~radio_rfsurvey~~	~~ACTION~~	~~Performs RF survey of cellular module (may only be available on certain models)~~ Note: the functionality is removed from the code
remove_icon	ACTION	Deletes user-supplied icon
remove_image	ACTION	Deletes user-supplied image
remove_logo	ACTION	Deletes user-supplied logo
reset_bluetooth	ACTION	Resets the Bluetooth hardware

Element	Type	Description
reset_modem	ACTION	Resets the cellular radio hardware
reset_wifi	ACTION	Resets the WiFi hardware
restart	ACTION	Restarts device
restart_node_red	ACTION	Restarts Node-RED server
restore_defaults	ACTION	Resets the device with user-defined defaults if set, otherwise factory
restore_factory	ACTION	Resets the device with factory defaults
revert	ACTION	Reverts all changes since the last save
save	ACTION	Saves the current configuration
save_apply	ACTION	Saves the current configuration and applies the changes immediately, use "allowRestart=true" option to apply the changes that require device reboot
save_oem	ACTION	Saves current configuration as factory/OEM default
save_restart	ACTION	Saves the current configuration and restarts the device
sms_send	ACTION	Send a text to a specified recipient
telit_check_fota_updates	ACTION	Get information on Telit Radio Firmware Upgrade
telit_fota_upgrade	ACTION	Initiates Telit radio firmware upgrade from external site
telit_upgrade	ACTION	Initiates Telit radio firmware upgrade (POST Telit upgrade bin). LEGACY
upload_config	ACTION	Uploads and sets new configuration (POST configuration file)
upload_icon	ACTION	Uploads and sets new icon (POST icon file)
upload_image	ACTION	Uploads and sets new image (POST image file)
upload_logo	ACTION	Uploads and sets new logo (POST logo file)

Collections

Collections are groups of related elements used to configure a service or capability. There are four main actions that can be performed on a collection: get, edit, add, and delete. These actions align with RESTful calls: GET, PUT, POST, and DELETE.

The following collections **were NOT modified** in scope of mPower R. 6.0 compare to mPower Edge 5.3.8:

- alert

- appStore
- apps
- autoDialout
- autoReboot
- backOffTimers
- battery
- bluetooth
- bluetoothLowEnergy
- bootloader
- brand
- btDevices
- cacertificates
- callHome
- certificate
- customApps
- customAppsConfig
- databaseInfo
- ddns
- devices
- dhcp
- dns
- filters
- firewall
- gccp
- gps
- greTunnels
- ipPipes
- ipsecTunnels
- lan
- legacyDefaults
- nat
- nodeRed
- ovpnTunnels
- packages
- passwordComplexityRules
- policy
- powerManagement
- radius
- remoteAccess
- remoteManagement
- resetButton
- routes
- secureProtocols

- selfDiagnostic
- serialModemPassthrough
- sms
- smtp
- snmp
- sntp
- telnet
- telnetServer
- trustedIp
- users
- waninfo
- wanmngr
- wifi

The following collections **were modified:**

- loraNetwork
- ni
- ppp
- serial
- stats
- syslog
- system

The following collections **were removed:**

- customDiagnostic

  The Custom Diagnostic feature is completely removed from mPower R.6.0 and this feature is no longer available.

The following collections **were added:**

- docker (*For Conduit 300 only*)
- mqttBroker

Collection	Type	Description
alert	OBJECT	The alerts array contains predefined number of elements; each defines settings for particular type of alert. A set of settings applicable for different alert types is different
apps	OBJECT	Defines settings for Application Store
appStore	ARRAY	Contains information on installed Node-RED applications
autoDialout	OBJECT	Allows the use of the cellular modem directly from the serial port

Collection	Type	Description
autoReboot	OBJECT	Causes the device to reboot automatically
backOffTimers	OBJECT	Stores carrier-defined backoff timers for PPP connections, SMS retries, and modem resets
battery	OBJECT	Contains the backup battery configuration parameters
bluetooth	OBJECT	Allows a device to connect via Bluetooths
bluetoothLowEnergy	OBJECT	Allows connecting devices via BLE
bootloader	OBJECT	Bootloader configuration parameters
brand	OBJECT	Customizes icons, images, and support information for a rebranded device
btDevices	ARRAY	List of available Bluetooth devices
cacertificates	OBJECT	Management of CA (Certifying Authority) certificates
callHome	OBJECT	Enables the device to call home for configuration files, firmware updates and adds your DeviceHQ account key to the device so it is associated with your DeviceHQ account
certificate	OBJECT	Contains secure public key certificate configurations
customApps	OBJECT	Manages installed custom applications
customAppsConfig	OBJECT	Custom Application configuration settings
databaseInfo		
ddns	OBJECT	Updates the dynamic domain name server when the IP address changes
devices	ARRAY	A list of saved devices
dhcp	OBJECT	Stores DHCP settings
dns	OBJECT	DNS forwarding configuration
docker	OBJECT	Docker service configuration *(For Conduit 300 only)*
eventLog	OBJECT	Defines eventlog settings (MTRE hardware)
filters	ARRAY	Stores a list of firewall filters
firewall	OBJECT	Stores firewall settings
gccp	OBJECT	Stores the settings for the GCCP application

Collection	Type	Description
gps	OBJECT	Stores the GPS service settings
greTunnels	ARRAY	Stores a list of GRE tunnels
ipPipes	ARRAY	Stores a list of configured IP pipes
ipsecTunnels	ARRAY	Stores a list of IPsec tunnels
lan	OBJECT	Defines the LAN interface settings for PPP-IP PASSTHROUGH and SERIAL-MODEM PASSTHROUGH modes only
legacyDefaults		
loraNetwork	OBJECT	lora network interface settings
mqttBroker	OBJECT	mqtt settings
nat	ARRAY	Stores a list of NAT rules for advanced firewall settings
ni	OBJECT	Settings for network interfaces
nodeRed	OBJECT	Node-RED configuration
notificationEventGroup	OBJECT	
ovpnTunnels	ARRAY	List of configured OpenVPN tunnels
packages	OBJECT	Perform package management operations
passwordComplexityRules		
policy	OBJECT	Contains usage policy settings
powerManagement		
ppp	OBJECT	Defines the PPP settings
radius	OBJECT	Configures Radius settings
remoteAccess	OBJECT	Defines settings for remote access of the device
remoteManagement	OBJECT	Defines the remote management settings
resetButton	OBJECT	Reset button behavior configuration
routes	ARRAY	Stores a list of static routes
secureProtocols	ARRAY	Cipher suites and advanced security options

Collection	Type	Description
selfDiagnostic	OBJECT	Self-diagnostic settings
serial	OBJECT	Defines the serial port settings
serialModemPassthrough	OBJECT	Defines serial modem mode settings
sms	OBJECT	Defines the SMS settings
smtp	OBJECT	Defines the SMTP settings
snmp	OBJECT	Defines the SNMP settings
sntp	OBJECT	Defines the clock synchronization settings with a remote SNTP server
stats	OBJECT	Statistics on services and interfaces
syslog	OBJECT	Defines the syslog support settings
system	OBJECT	Defines the system attributes
telnet		
telnetServer		
trustedIp	OBJECT	Filter incoming packets depending on the white or black IP addresses list
users	ARRAY	Stores a list of users for authentication purposes
waninfo	OBJECT	Stores information on WAN interfaces
wanmngr	OBJECT	Defines the WAN management settings
wifi	OBJECT	Defines the Wi-Fi services settings

Docker (*For Conduit 300 only)*

New collection.

Description: Docker service configuration

Element	Type	Description
docker	OBJECT	Docker service configuration
enabled	BOOL	Enable or disable Docker service (default:false)

mqttBroker

New collection.

Description: MQTT Broker configuration

Element	Type	Description
__v	UINT	Version of model [2]
bridge	OBJECT	A MQTT bridge lets you connect two MQTT brokers together. They are generally used for sharing messages between systems. A common usage is connect edge MQTT brokers to a central or remote MQTT network. The Mosquitto broker (server) can be configured to work as an MQTT bridge
authMethod	STRING	Authentication method for the MQTT bridge to authenticate with the remote broker
certificate	STRING	The certificate that the local endpoint will use during authentication
cleanSession	BOOL	When disabled, all subscriptions on the remote broker are kept in case of the network connection dropping. If enabled, all subscriptions and messages on the remote broker will be cleaned up if the connection drops. Note that setting to true may cause a large amount of retained messages to be sent each time the bridge reconnects (default:false)
clientId	STRING	Unique identifier that the broker uses to identify the client
enabled	BOOL	Check to enable MQTT broker to act as a bridge and communicate with a remote broker (default:false)
identity	STRING	PSK identity for requested pre-shared key
notifications	BOOL	When enabled, publish notification messages to the local and remote brokers giving information about the state of the bridge connection. Retained messages are published to the topic $SYS/broker/connection/<remote_clientid>/state unless otherwise set with notification_topics. If the message is 1 then the connection is active, or 0 if the connection has failed (default:true)
password	STRING	User password
privateKey	STRING	The private key that the local endpoint will use during authentication

Element	Type	Description
protocolVersion	STRING	The version of the MQTT protocol to use with for this bridge, bridge_protocol_version setting. Possible options: mqttv31, mqttv311. (default:mqttv31)
psk	STRING	Pre-Shared key (PSK)
secondaryAddress	STRING	Backup remote broker IP address or domain name
secondaryPort	UINT	Backup remote broker port (default:1883)
serverAddress	STRING	Primary remote broker address IP address or domain name
serverPort	UINT	Primary remote broker port (default:1883)
tlsEnabled	BOOL	Enable to allow SSL/TLS support (bridge_capath option) (default:false)
topics		
direction	STRING	The direction that the messages will be shared in; it is possible to import messages from a remote broker using in, export messages to a remote broker using out or share messages in both directions (in, out, both) (default:out)
localPrefix	STRING	Remote prefix is used to remap subtrees of topics. The topic entered in the topic field will be prepended with the remote prefix before the subscriptions is done
pattern	STRING	Define a topic pattern to be shared between the two brokers. Any topics matching the pattern are shared
qosLevel	UINT	Quality of Service level defines the publish/subscribe QoS level used for this topic. Values are: 0 (At Most Once), 1 (At Least Once), 2 (Exactly once)(default:0)
remotePrefix	STRING	Local prefix is used to remap subtrees of topics. The topic entered in the topic field will be prepended with the local prefix before the subscriptions is done
tryPrivate	BOOL	When enabled, the bridge will attempt to indicate to the remote broker that it is a bridge not an ordinary client. If successful, this means that loop detection will be more effective and that retained messages will be propagated correctly. Not all brokers support this feature so it may be necessary to set try_private to false if your bridge does not connect properly (default:true)
username	STRING	User ID
verifyHostname	BOOL	When enabled, the bridge will attempt to verify the hostname provided in the remote certificate matches the host/address being connected to (bridge_insecure option) (default:false)

loraNetwork

Description: lora network interface settings : OBJECT

The following elements are added to the loraNetwork server collection:

- module
- spi_device1261
- fineTimestampEnable
- fineTimestampMode
- maxRx2PacketSize

Element	Type	Description
__v	UINT	version of model [20] (automatic)
addressRange	OBJECT	address range settings
end	STRING	end of range for assigned addresses, four groups of two hexadecimal digits, separated by colons
start	STRING	start of range for assigned addresses, four groups of two hexadecimal digits, separated by colons
backupInterval		
basicStation		
cert		
cert2		
conf		
conf2		
credentials		
credentials2		
key		
key2		
trust		
trust2		
uri		

Element	Type	Description
uri2		
db		
defaultApp		
enabled		
eui		
module		
options		
apikey		
check_hostname		
client_cert		
password		
server_cert		
username		
url		
log	OBJECT	log settings
console	BOOL	console
level	UINT	log level
path	STRING	path
syslog	BOOL	syslog
lora	OBJECT	lora settings
ADRStep	UINT	Step in cB between SNR based datarate assignment for ADR
aesKey		
antennaGain	INT	Gain of external antenna in dBi
basicStationMode		
beaconFreqHop		

Element	Type	Description
beaconFrequency		
beaconInfoDesc		
beaconInterval		
beaconLatitude		
beaconLongitude		
beaconPower		
calAD9361		
calTempRoom		
channelMask		
channelPlan		
classCAckTimeout		
deviceQueueSize	UINT	device queue size for pending downlink packets
diversity		
dspStatInterval		
dutyCyclePeriod	UINT	Length of duty-cycle sliding window in minutes
dwelltimeDown	UINT	max dwelltime for downlink packets default: 0 - no limit, 1 - 400 ms
dwelltimeUp	UINT	max dwelltime for uplink packets, default: 0 - no limit, 1 - 400 ms
enableStrictCounterValidation		
enabled	BOOL	check to enable lora network support
frequencyAS	UINT	center freq for extra AS channels (Hz)
frequencyAS2		
frequencyBand	UINT	frequency band
frequencyBand2		
frequencyEU	UINT	center freq for extra EU channels (Hz)
frequencyEU2		

Element	Type	Description
frequencyIN		
frequencyIN2		
frequencyISM2400		
frequencyISM2400_2		
frequencyISM2400_2_1		
frequencyISM2400_2_2		
frequencyISM2400_2_3		
frequencyISM2400_3		
frequencyKR	UINT	center freq for extra KR channels (Hz)
frequencyKR2		
frequencyRU		
frequencyRU2		
frequencySubBand	UINT	frequency sub-band
frequencySubBand2		
fskSYNC		
ftsMatchCRCError		
ftsVersion		
gpsReceiver		
joinDelay	UINT	Rx1 delay in seconds between end of tx and opening of first rx window for join accept message
lbtEnabled		
maxDatarate	UINT	Max datarate for ADR
maxEIRP	UINT	AS923 max device TX power
maxTxPower	UINT	maximum tx power
maxRx2PacketSize		
minDatarate	UINT	Min datarate for ADR

Element	Type	Description
nbDSP		
netID	STRING	LoraWAN network ID : 3 bytes HEX
networkLeadTime		
packetForwarderConfig	STRING	contents to be used for global_conf.json file
packetForwarderConfig2		
packetForwarderMode	BOOL	enable packet forwarder mode
pingSlotDatarate		
pingSlotFreqHop		
pingSlotFrequency		
reducedPacketUpdates		
rx1DatarateOffset	UINT	offset used for datarate on first RX window
rx1Delay	UINT	Rx1 delay in seconds between end of tx and opening of first rx window
rx2Datarate	UINT	datarate to be used in second RX window
skipPacketForwarderFieldCheck		
spi_device		
spi_device1261	STRING	
fineTimestampEnable	BOOL	
fineTimestampMode	STRING	
mqtt	OBJECT	mqtt settings
enabled	BOOL	check to enable MQTT protocol
host	STRING	hostname
password		
port	UINT	port
username		
network	OBJECT	network settings

Element	Type	Description
baseKey	STRING	Key used for zero touch provisioning : 16 bytes HEX
defaultProfile		
eui	STRING	extended unique identifier
joinServer		
key	STRING	key : 16 bytes HEX
leasetime	UINT	lease time
lensCheckinInterval		
lensDeviceHQ		
lensEnabled		
lensGatewayStats		
lensLocalJoinMetadata		
lensNetworkStats		
lensPacketMetadata		
lensPacketPayloadData		
lensServer		
localJoinServerEnabled		
name	STRING	name
passphrase	STRING	passphrase
public	UINT	set network mode 0:Private MTS, 1:Public LoRaWAN, 2:Private LoRaWAN
salt	STRING	Salt used for zero touch provisioning
packetForwarder		
aesKey		
antennaGain		
autoquitThreshold		
beaconFreqHop		

Element	Type	Description
beaconFrequency		
beaconInfoDesc		
beaconInterval		
beaconLatitude		
beaconLongitude		
beaconPower		
calAD9361		
calTempRoom		
channelPlan		
diversity		
downstreamPort		
dspStatInterval		
frequencyAS		
frequencyAS2		
frequencyEU		
frequencyEU2		
frequencyIN		
frequencyIN2		
frequencyISM2400		
frequencyISM2400_2		
frequencyISM2400_2_1		
frequencyISM2400_2_2		
frequencyISM2400_2_3		
frequencyISM2400_3		
frequencyKR		

Element	Type	Description
frequencyKR2		
frequencyRU		
frequencyRU2		
frequencySubBand		
frequencySubBand2		
fskSYNC		
ftsMatchCRCError		
ftsVersion		
fwdCrcDisabled		
fwdCrcError		
fwdCrcValid		
gpsReceiver		
gwID		
gwID2		
gwSource		
keepAliveInterval		
lbtDefaultChannels		
lbtEnabled		
lbtFrequency0		
lbtFrequency1		
lbtFrequency2		
lbtFrequency3		
lbtFrequency4		
lbtFrequency5		
lbtFrequency6		

Element	Type	Description
lbtFrequency7		
lbtRssiOffset		
lbtRssiTarget		
lbtScanTime		
manualMode		
nbDSP		
path		
pathGeo		
public		
pushTimeout		
serverAddress		
statInterval		
upstreamPort		
redundancy		
defaultInterval		
enabled		
failoverInterval		
primaryAddress		
role		
secondaryAddress		
spectralScan		
bandwidth		
duration		
enabled		
floor		

Element	Type	Description
imme		
interval		
limit		
offset		
ranges		
start		
stop		
samples		
startAt		
step		
stopCriteria		
test		
disableDutyCycle	BOOL	disable duty cycle. FOR TESTING PURPOSES ONLY!!!
disableGPS		
disableRxJoin1	BOOL	disable join downlink packet in first Rx window
disableRxJoin2	BOOL	disable join downlink packet in second Rx window
disableRxWindow1	BOOL	disable downlink packet in first Rx window
disableRxWindow2	BOOL	disable downlink packet in second Rx window
trimInterval		
trimRows		
udp	OBJECT	udp settings
allowPublic		
appPortDown	UINT	application port down
appPortUp	UINT	application port up
downstreamPort	UINT	downstream port

Element	Type	Description
upstreamPort	UINT	upstream port
whitelist	OBJECT	white list settings
devices	ARRAY	local unique appkey store
appeui	STRING	application id attached to received packets : 8 bytes HEX
appkey	STRING	device key used to authenticate join request and generate session keys : 16 bytes HEX
class	STRING	operating class of end-device : A, B or C
deveui	STRING	device id : 8 bytes HEX
enabled	BOOL	check to provide an access to the devices from the White List only

ni

Description: Settings for network interfaces : OBJECT

New elements are added:

- wanMasquerade
- dot1x

Element	Type	Description
nis	ARRAY	A list of configured network interfaces
MAC	BOOL	Indicates whether the WAN interface is available
available	BOOL	Indicates whether or not the network interface is available
bridge	STRING	Contains information about connectivity of the network interface to a bridge. If the interface has not connecting it contains '--'
ipv4	OBJECT	Contains IPv4 setting
dns1	STRING	Specifies the address of primary DNS server
dns2	STRING	Specifies the address of secondary DNS server
gateway	STRING	Specifies the gateway address
ip	STRING	Specifies the IP address assigned to this interface
mask	STRING	Specifies the mask assigned to this interface
mode	STRING	Mode STATIC/DHCP/DHCP-ADDRESSES-ONLY/PPP/PPP-ADDRESSES-ONLY

Element	Type	Description
wanMasquerade	BOOL	Enable IP masquerading for the interface when it is in WAN mode (default:true)
ipv6	OBJECT	Contains IPv6 settings
delegatedPrefixLength	UINT	Specifies IPv6 prefix length in the DHCPv6 Prefix Delegation mechanism. For WAN: the prefix that is requested from ISP. For LAN: the prefix that the device allocates to the interface from the obtained IPv6 prefix pool (default:64)
dns1	STRING	Specifies the address of primary IPv6 DNS server
dns2	STRING	Specifies the address of secondary IPv6 DNS server
enabled	BOOL	Enables or disables IPv6 support for this interface (default:false)
fixedIP	ARRAY	Static IPv6 addresses assigned to this interface
gateway	STRING	Specifies the address of default IPv6 gateway
linkLocalIp	ARRAY	List of all current link-local IPv6 addresses on the interface
mode	STRING	Mode depends on the network interface type. WAN type supports AUTO and AUTO-ADDRESSES-ONLY, LAN type supports DELEGATED and STATIC
prefixDelegationEnabled	BOOL	For WAN type only: Enables or disables DHCPv6-PD support on this interface (default:false)
dot1x	OBJECT	802.1X authentication configuration
authType	STRING	Type of the authentication: NONE, EAP-PWD, EAP-TLS, EAP-TTLS, EAP-PEAP (default:'NONE')
enabled	BOOL	Enables or disables 802.1X authentication for this interface (default:false)
params	OBJECT	802.1X authentication parameters
anonymousIdentity	STRING	Anonymous identity to authenticate the user in the outer (phase 1) authentication (default:'')
caCertificate	STRING	X.509 Certification Authority certificate (default:'')
clientCertificate	STRING	X.509 client certificate (default:'')
domainMatch	STRING	Domain substring for server certificate validation (default:'')
identity	STRING	Identity (user name) to authenticate the user in the inner (phase 2) authentication (default:'')
innerAuthType	STRING	Type of the inner (phase 2) authentication: EAP-MSCHAPV2, MSCHAPV2 or '' (empty string) (default:'')

Element	Type	Description
password	STRING	The secret string to be used for EAP-PWD authentication (default:'')
peapVersion	INT	Version of the PEAP protocol -1 (AUTO), 0 or 1 (default:-1)
privateKey	STRING	Private key of the client (default:'')
privateKeyPassword	STRING	Password to decrypt the private key (default:'')
subjectMatch	STRING	Subject substring for server certificate validation (default:'')
status	STRING	Dynamic field, the current authorization status: authorized or unauthorized
name	STRING	Specifies network interface name
nitype	STRING	Specifies network interface type ETHER/PPP/WIFI_AS_WAN/WIFI_AP/BRIDGE
switchVirtualIface	BOOL	Specifies whether the interface is a switch virtual interface
type	STRING	Specifies network interface type LAN/WAN

ppp

Description: Defines the PPP settings : OBJECT

New element is added: **packetSize**

Element	Type	Description
authentication	OBJECT	Specifies the PPP authentication settings
password	STRING	Specifies the password of the PPP account
type	STRING	Specifies the type of authentication to use when connecting to PPP: PAP, CHAP or PAP-CHAP (default:'PAP-CHAP')
username	STRING	Specifies the username of PPP account
cellularMode	STRING	Specify how the device should connect to available cellular networks. Select '2g' or '3g' or '4g' to exclusively connect to a chosen network and do not fallback to any other network mode in case of no coverage. Select '2g,3g,4g' to connect to the preferable network and fallback to other network in case no coverage. Options: [2g,3g,4g] : (default:auto)
connectTimeout	UINT	Specifies the amount of time in seconds to wait for a connection while in receive mode (default:90)
dialOnDemand	BOOL	Enables or disables dial on demand : (default:false)
diversity	BOOL	Enables or disables antenna diversity : (default:true)

Element	Type	Description
enabled	BOOL	Enables or disables PPP connection : (default:false)
idleTimeout	UINT	Specifies the amount of time in seconds before a connection is considered idle and is disconnected (default:180)
keepAlive	OBJECT	Specifies the PPP keep alive settings
dataRecv	OBJECT	Keeps the PPP connection alive as long as data is being received
enabled	BOOL	Enables or disables the data receive monitor (default:false)
window	UINT	Specifies the size of the connection window in minutes (default:0)
enabled	BOOL	Enables or disables the keep alive feature
hostname	STRING	Specifies the name of a host that to be used to track connectivity
icmpCount	UINT	Specifies the number of pings to send (default:4)
packetSize	UINT	Specifies the packet size of pings to send (default:56)
pingInterval	UINT	Specifies the interval to send pings, in seconds (default:60)
radioReboot	OBJECT	Reboot the radio in addition to restarting pppd after back-off
enabled	BOOL	Enables or disables radio reboot functionality (default:false)
tcpPort	UINT	Specifies the connection port on a host (default:0)
type	STRING	Specifies the method used for keep alive, ICMP or TCP (default:ICMP)
maxRetries	UINT	Specifies the maximum acceptable number of retries before failure (default:0)
modem	OBJECT	Specifies the modem settings
apnString	STRING	Specifies the APN connection string designated by the service provider
baudRate	UINT	Specifies the baud rate of the modem (default:115200)
commands	ARRAY	Contains a list of AT commands to send to the modem after a successfully connection
connectString	STRING	Specifies the string to send to the modem on successful connection (default:'CONNECT')
contextId	UINT	Specifies context definition id used with AT+CGDCONT
dialNumber	STRING	Specifies the number the modem should dial for connection (default:'*99***1#')
dialPrefix	STRING	Specifies the prefix to add to the number being dialed (default:'ATDT')

Element	Type	Description
fwSwitch	STRING	Specifies a specific firmware image to use on radios embedding 2 different firmware images: '0' for automatic, 'vz' for Verizon, 'att' for AT&T compatible (default:'0')
initStrings	ARRAY	Contains a list of init strings to send to the modem (default:['AT+CSQ'])
simPin	STRING	Specifies the PIN used to unlock the SIM
nat	BOOL	Enables or disables the NAT feature (default:true)
powerOnInitString	STRING	Specifies the string to send to the radio on boot up
protocol	STRING	Specifies the protocol to use when connecting to the modem, PPP or WWAN (default:'PPP')
wakeUpOnCall	OBJECT	Determines the wake-up behavior of radio when a call comes in
ackString	STRING	Specifies the string used to acknowledge the receipt of an SMS to the delivering SMSC
callerIds	ARRAY	Contains a list of valid caller IDs for wake-up
action	STRING	Specifies the action to perform on wake-up
text	STRING	Specifies the text of a wake-up SMS message or caller-ID value
type	STRING	Specifies the type of call, CALLER or SMS
delay	UINT	Specifies the amount of time to wait after call before reconnecting in seconds (default:10)
enabled	BOOL	Enables or disables the wake-up on call feature (default:false)
fromLan	BOOL	Enables or disables wake-up on LAN activity (default:false)
initStrings	ARRAY	Contains a list of cellular radio AT init strings
onCallerId	BOOL	Enables or disables wake-up on caller ID (default:false)
onRing	BOOL	Enables or disables wake-up on ring (default:false)
onSms	BOOL	Enables or disables wake-up on SMS (default:false)

serial

Description: Defines the serial port settings (OBJECT)

New element is added:

- rs4xxTermination

Element	Type	Description
baudRate	UINT	Specifies the serial baud rate (default:115200)
flowControl	STRING	Specifies the expected flow control convention, RTS-CTS or NONE (default:NONE)
dataBits	UINT	Specifies the expected number of data bits (default:8)
stopBits	UINT	Specifies the expected number of stop bits (default:1)
parity	STRING	Specifies the parity convention, ODD, EVEN or NONE (default:NONE)
type	STRING	Specifies the mode of serial port: RS-232 or RS-485 (default:RS-232)
rs4xxTermination	BOOL	"Enables or disables built-in RS-485 termination (default:false)
modbus	BOOL	Enables or disables modbus (default:false)

system

New elements were added:

- tpm
- docker
- oemString1
- oemString2
- firmwareRelease

Element	Type	Description
accessoryCards	ARRAY	Specifies the list of installed accessory cards
apiVersion	STRING	Specifies the API version
capabilities	OBJECT	Reports hardware capabilities
adc	BOOL	Specifies whether the device supports analog inputs
battery	BOOL	Specifies whether the device supports backup battery
bluetooth	BOOL	Specifies whether the device supports Bluetooth
cell	BOOL	Specifies whether the device supports Cellular
cellWwan	BOOL	Specifies whether the cellular radio supports QMI WWAN interface
din	BOOL	Specifies whether the device supports digital inputs
docker	BOOL	Specifies whether the device supports docker

Element	Type	Description
dout	BOOL	Specifies whether the device supports digital outputs
externalSerialPort	BOOL	Specifies whether the device supports an external serial port
flexibleSerialPort	BOOL	Specifies whether the device supports a flexible serial port
gpio	BOOL	Specifies whether the device supports GPIO
gps	BOOL	Specifies whether the device supports GPS
lora	BOOL	Specifies whether the device supports LoRa
loraNetworkServer	BOOL	Specifies whether the LoRa Network Server is installed
nodeRed	BOOL	Specifies whether the if Node-RED server is installed false
rs232	BOOL	Specifies whether the device supports RS-232 interface
rs422	BOOL	Specifies whether the device supports RS-422 interface
rs485	BOOL	Specifies whether the device supports RS-485 interface
serial	BOOL	Specifies whether the device supports external serial port
tpm	BOOL	Specifies whether the device supports TPM
wifi	BOOL	Specifies whether the device supports Wi-Fi
cmdtty	STRING	Specifies the TTY device that issues AT commands to the device
date	STRING	Specifies the current system date
datetime	STRING	Specifies the current system date and time
dbDirty	BOOL	Specifies whether the database is in a dirty state
defaultDeviceName	STRING	Specifies the default name of the device
deviceHostname	STRING	Device hostname
deviceId	STRING	Specifies the device ID
deviceName	STRING	Specifies the configured name of the device
firmware	STRING	Specifies the firmware version
firmwareDate	STRING	Specifies the date the firmware was built
firmwareImageId	STRING	Specifies the firmware Image ID value

Element	Type	Description
firmwareRelease	STRING	Specifies the firmware release version (MTRE only)
firstTimeSetup	BOOL	Specifies whether the device is set to default values
hardwareVersion	STRING	Specifies the hardware version of the device
imei	STRING	Specifies the international mobile station equipment identity
imsi	STRING	Specifies the international mobile subscriber identity
loraEui	STRING	EUI of the build-in LoRa card
loraFpgaVersion	UINT	FPGA firmware version of the build-in LoRa card
loraHwVersion	STRING	Hardware Version of the build-in LoRa card
loraProductId	STRING	Product ID of the build-in LoRa card
macAddress	STRING	Specifies the MAC address of the device's Ethernet port
macAddress1		
macBluetooth	STRING	Specifies the MAC address of the device's Bluetooth module
macWifi	STRING	Specifies the MAC address of the device's Wi-Fi module
memory	OBJECT	Contains a list of the current memory statistics
mode	STRING	Specifies the system level mode of the device (default:ROUTER)
oemId	STRING	Specifies configurable device id
oemString1	STRING	
oemString2	STRING	
permission	STRING	Specifies the authorization level of the active user
platform		
ppptty	STRING	Specifies the TTY device that PPP uses to make connections
productId	STRING	Specifies the product ID
radio	OBJECT	Specifies the radio's model number and type
carrier	STRING	Specifies the carrier currently providing cellular connectivity
code	STRING	Specifies the radio model's code number: H5, H6, EV3, C2, G3, LAT1, VW2 or LEU1

Element	Type	Description
firmware	STRING	Specifies radio firmware version
type	STRING	Specifies the type of radio, GSM, CMDA or LTE
restartNeeded	BOOL	Specifies whether settings have been changed and a restart is require to reflect those changes in services
signedFirmwareValidation	BOOL	Enable to require a signed firmware and perform a signature validation before the firmware upgrade (default:true)
time	STRING	Specifies the current system time of the device
uptime	STRING	Specifies how long the device has been running
user	STRING	Specifies the user currently logged in
uuid	STRING	uuid
vendorId	STRING	Specifies the vendor of the device
webTitle	STRING	Specifies the title configured to display in a browser

stats

Description: Statistics on services and interfaces : OBJECT

New elements are added:

- continuousPing
  - isRunning
- ping
  - isRunning
- radioSimStatus
  - attemptsPin
  - attemptsPuk
  - isSimInserted
  - isSimLocked
  - lockStatus

Element	Type	Description
continuousPing	Object	Indicates whether or not the continuous ping is in progress
isRunning	BOOL	Indicates whether the continuous ping is in progress
battery	OBJECT	Current backup battery status
charging	BOOL	When true, the battery is charging

Element	Type	Description
cycleCount	STRING	The total number of charge/discharge cycles this battery has experienced
discharging	BOOL	When true, the battery is discharging
millivolts	STRING	The battery voltage in millivolts
minutesToEmpty	STRING	The current estimated time until the battery is empty. Note: 65535 indicates infinite
minutesToFull	STRING	The current estimated time until the battery is fully charged. Note: 65535 indicates infinite
percentCharged	STRING	The current precentage the battery is charged
timestamp	STRING	The Unix Epoch Timestamp (in seconds since 1/1/1970) of the battery reading
valid	BOOL	When true, this data is valid and was taken from the battery
batteryHistory	ARRAY	Backup battery historical records
dns	ARRAY	Current DNS server IP addresses
servers	ARRAY	A list of DNS servers available for domain name resolution
eth0	OBJECT	Current statistics on Ethernet interface
flags	OBJECT	Various network interface flags
all_multi	BOOL	Receives all multicast packets
broadcast	BOOL	Broadcast address valid
dynamic	BOOL	The addresses are lost when the interface goes down
loopback	BOOL	The interface is a loopback net
lower_up	BOOL	Driver signals L1 up
multicast	BOOL	Supports multicast.
no_arp	BOOL	No address resolution protocol
point_to_point	BOOL	Interface is point-to-point link
promisc	BOOL	Interface is in promiscuous mode
up	BOOL	The interface is up
ip	STRING	Specifies the IP address assigned to this interface
mask	STRING	Specifies the mask assigned to this interface

Element	Type	Description
mtu	STRING	Specifies maximum transmission unit in bytes
rx	OBJECT	Contains statistics on received bytes
bytes	STRING	Specifies the number of received bytes
dropped	STRING	Specifies the number of received byte drops
errors	STRING	Specifies the number of received byte errors
frame	STRING	Specifies the number of received frames
overruns	STRING	Specifies the number of received overruns
packets	STRING	Specifies the number of received packets
tx	OBJECT	Contains statistics on transmitted bytes
bytes	STRING	Specifies the number of transmitted bytes
carrier	STRING	Specifies the number of transmitted carriers
collisions	STRING	Specifies the number of transmitted collisions
dropped	STRING	Specifies the number of transmitted drops
errors	STRING	Specifies the number of transmitted errors
overruns	STRING	Specifies the number of transmitted overruns
packets	STRING	Specifies the number of transmitted packets
queueLength	STRING	Specifies the number of packets that can be queued for transmission
eth0History	ARRAY	Specifies daily statistics on Ethernet interface traffic
date	UINT	Specifies the date in format MM/DD/YYYY
rx	UINT	Specifies the number of received bytes for the day
tx	UINT	Specifies the number of transmitted bytes for the day
eth0Total	OBJECT	Total and today's statistics on Ethernet interface traffic
todayRx	UINT	Specifies the number of bytes received during the pre-determined period
todayTx	UINT	Specifies the number of bytes transmitted during the pre-determined period
totalRx	UINT	Specifies the number of bytes received today

Element	Type	Description
totalTx	UINT	Specifies the number of bytes transmitted today
eth1	OBJECT	Current statistics on Ethernet interface
flags	OBJECT	Various network interface flags
all_multi	BOOL	Receives all multicast packets
broadcast	BOOL	Broadcast address valid
dynamic	BOOL	The addresses are lost when the interface goes down
loopback	BOOL	The interface is a loopback net
lower_up	BOOL	Driver signals L1 up
multicast	BOOL	Supports multicast.
no_arp	BOOL	No address resolution protocol
point_to_point	BOOL	Interface is point-to-point link
promisc	BOOL	Interface is in promiscuous mode
up	BOOL	The interface is up
ip	STRING	Specifies the IP address assigned to this interface
mask	STRING	Specifies the mask assigned to this interface
mtu	STRING	Specifies maximum transmission unit in bytes
rx	OBJECT	Contains statistics on received bytes
bytes	STRING	Specifies the number of received bytes
dropped	STRING	Specifies the number of received byte drops
errors	STRING	Specifies the number of received byte errors
frame	STRING	Specifies the number of received frames
overruns	STRING	Specifies the number of received overruns
packets	STRING	Specifies the number of received packets
tx	OBJECT	Contains statistics on transmitted bytes
bytes	STRING	Specifies the number of transmitted bytes

Element	Type	Description
carrier	STRING	Specifies the number of transmitted carriers
collisions	STRING	Specifies the number of transmitted collisions
dropped	STRING	Specifies the number of transmitted drops
errors	STRING	Specifies the number of transmitted errors
overruns	STRING	Specifies the number of transmitted overruns
packets	STRING	Specifies the number of transmitted packets
queueLength	STRING	Specifies the number of packets that can be queued for transmission
eth1History	ARRAY	Specifies daily statistics on Ethernet interface traffic
date	UINT	Specifies the date in format MM/DD/YYYY
rx	UINT	Specifies the number of received bytes for the day
tx	UINT	Specifies the number of transmitted bytes for the day
eth1Total	OBJECT	Total and today's statistics on Ethernet interface traffic
todayRx	UINT	Specifies the number of bytes received during the pre-determined period
todayTx	UINT	Specifies the number of bytes transmitted during the pre-determined period
totalRx	UINT	Specifies the number of bytes received today
totalTx	UINT	Specifies the number of bytes transmitted today
eth2	OBJECT	Current statistics on Ethernet interface
flags	OBJECT	Various network interface flags
all_multi	BOOL	Receives all multicast packets
broadcast	BOOL	Broadcast address valid
dynamic	BOOL	The addresses are lost when the interface goes down
loopback	BOOL	The interface is a loopback net
lower_up	BOOL	Driver signals L1 up
multicast	BOOL	Supports multicast.
no_arp	BOOL	No address resolution protocol

Element	Type	Description
point_to_point	BOOL	Interface is point-to-point link
promisc	BOOL	Interface is in promiscuous mode
up	BOOL	The interface is up
ip	STRING	Specifies the IP address assigned to this interface
mask	STRING	Specifies the mask assigned to this interface
mtu	STRING	Specifies maximum transmission unit in bytes
rx	OBJECT	Contains statistics on received bytes
bytes	STRING	Specifies the number of received bytes
dropped	STRING	Specifies the number of received byte drops
errors	STRING	Specifies the number of received byte errors
frame	STRING	Specifies the number of received frames
overruns	STRING	Specifies the number of received overruns
packets	STRING	Specifies the number of received packets
tx	OBJECT	Contains statistics on transmitted bytes
bytes	STRING	Specifies the number of transmitted bytes
carrier	STRING	Specifies the number of transmitted carriers
collisions	STRING	Specifies the number of transmitted collisions
dropped	STRING	Specifies the number of transmitted drops
errors	STRING	Specifies the number of transmitted errors
overruns	STRING	Specifies the number of transmitted overruns
packets	STRING	Specifies the number of transmitted packets
queueLength	STRING	Specifies the number of packets that can be queued for transmission
eth2History	ARRAY	Specifies daily statistics on Ethernet interface traffic
date	UINT	Specifies the date in format MM/DD/YYYY
rx	UINT	Specifies the number of received bytes for the day

Element	Type	Description
tx	UINT	Specifies the number of transmitted bytes for the day
eth2Total	OBJECT	Total and today's statistics on Ethernet interface traffic
todayRx	UINT	Specifies the number of bytes received during the pre-determined period
todayTx	UINT	Specifies the number of bytes transmitted during the pre-determined period
totalRx	UINT	Specifies the number of bytes received today
totalTx	UINT	Specifies the number of bytes transmitted today
gps	OBJECT	Contains positional information of gps device
alt	STRING	Specifies altitude
fix	INT	Fix quality (0=No fix, 1=Have fix without DGPS, 2 = have fix with DGPS)
lat	DOUBLE	Specifies latitude coordinate
lng	DOUBLE	Specifies longitude coordinate
sats	INT	Number of satellites used in solution
time	DOUBLE	Time of update
gre	OBJECT	Contains statistics on gre tunnels (keys are tunnel names)
tunnel	OBJECT	Statistics on ipsec LAN interface transmitted bytes
localIp	STRING	Specifies the IP address assigned to this interface
mode	STRING	Specifies tunnel mode
remoteIp	STRING	Specifies the IP address of the remote end of this tunnel
rx	OBJECT	Summarizes receiver statistics
Mcasts	UINT	Specifies the total number of multicast packets received on a broadcast GRE tunnel
bytes	UINT	Specifies the total number of bytes received on the interface
csumErrors	UINT	Specifies the total number of packets dropped because of checksum failures for a GRE tunnel with checksumming enabled.
errors	UINT	Specifies the total number of receiver errors
outOfSequence	UINT	Specifies the total number of packets dropped because they arrived out of sequence for a GRE tunnel with serialization enabled

Element	Type	Description
packets	UINT	Specifies the total number of packets received on the interface
ttl	STRING	Specifies time to live set on the interface
tx	OBJECT	Summarizes transmitter statistics
bytes	UINT	Specifies the total number of bytes transmitted on the interface
deadLoop	UINT	Specifies the total number of packets which were not transmitted because the tunnel is looped back to itself
errors	UINT	Specifies the total number of transmitter errors
noBuffs	UINT	Specifies the total number of packets which were not transmitted because the kernel failed to allocate a buffer
noRoute	UINT	Specifies the total number of packets which were not transmitted because there is no IP route to the remote endpoint
packets	UINT	Specifies the total number of packets transmitted on the interface
ipsec	ARRAY	Statistics on IPSec tunnels
name	STRING	Specifies an IPSec tunnel name
rxBytes	UINT	Specifies the number of received bytes
rxPackets	UINT	Specifies the number of received packets
tunnelName	STRING	Specifies IPSec endpoints in ###.###.###.### - ###.###.###.### format
txBytes	UINT	Specifies the number of transmitted bytes
txPackets	UINT	Specifies the number of transmitted packets
lan0	OBJECT	Current statistics on the bridge interface
flags	OBJECT	Various network interface flags
all_multi	BOOL	Receives all multicast packets
broadcast	BOOL	Broadcast address valid
dynamic	BOOL	The addresses are lost when the interface goes down
loopback	BOOL	The interface is a loopback net
lower_up	BOOL	Driver signals L1 up
multicast	BOOL	Supports multicast.

Element	Type	Description
no_arp	BOOL	No address resolution protocol
point_to_point	BOOL	Interface is point-to-point link
promisc	BOOL	Interface is in promiscuous mode
up	BOOL	The interface is up
ip	STRING	Specifies the IP address assigned to this interface
mask	STRING	Specifies the mask assigned to this interface
mtu	STRING	Specifies maximum transmission unit in bytes
rx	OBJECT	Contains statistics on received bytes
bytes	STRING	Specifies the number of received bytes
dropped	STRING	Specifies the number of received byte drops
errors	STRING	Specifies the number of received byte errors
frame	STRING	Specifies the number of received frames
overruns	STRING	Specifies the number of received overruns
packets	STRING	Specifies the number of received packets
tx	OBJECT	Contains statistics on transmitted bytes
bytes	STRING	Specifies the number of transmitted bytes
carrier	STRING	Specifies the number of transmitted carriers
collisions	STRING	Specifies the number of transmitted collisions
dropped	STRING	Specifies the number of transmitted drops
errors	STRING	Specifies the number of transmitted errors
overruns	STRING	Specifies the number of transmitted overruns
packets	STRING	Specifies the number of transmitted packets
queueLength	STRING	Specifies the number of packets that can be queued for transmission
modbus	ARRAY	Statistics on modbus passthrough pipe
id	UINT	Specifies the ID of the device on the bus

Element	Type	Description
rx	UINT	Reports the number of bytes received by the device
status	STRING	Reports the status of the device
time	UINT	Reports the number of seconds since the last activity
tx	UINT	Reports the number of bytes transmitted by the device
ovpn	ARRAY	Statistics on OpenVPN tunnels
connected	BOOL	Indicates whether the tunnel is established
dev	STRING	Indicates the type of virtual networking interface (tun or tap)
name	STRING	Indicates the name of the tunnel
proto	STRING	Indicates the protocol to use when connecting with the remote (tcp or udp)
statistics	OBJECT	Contains statistics on received/transmitted bytes
rx	UINT	Specifies the number of received bytes
tx		Specifies the number of transmitted bytes: UINT
type	STRING	Indicates whether the tunnel is configured as a client or as a server
use_static	BOOL	Specifies whether a static key is used for authorization
packages	ARRAY	Lists the packages installed by the user
name	STRING	The package name
size	UINT	The package size in bytes
version	STRING	The package version
ping	OBJECT	Indicates whether or not the ping is in progress
isRunning	BOOL	Indicates whether the ping is in progress
ppp	OBJECT	Contains statistics for the PPP interface
areaCode	STRING	Reports localization area code
cellularMode	STRING	Specifies the cellular mode that is currently used by the modem [2g, 3g, 4g]
dnsServers	ARRAY	A list of strings representing IP addresses of DNS servers
flags	OBJECT	Various network interface flags

Element	Type	Description
all_multi	BOOL	Receives all multicast packets
broadcast	BOOL	Broadcast address valid
dynamic	BOOL	The addresses are lost when the interface goes down
loopback	BOOL	The interface is a loopback net
lower_up	BOOL	Driver signals L1 up
multicast	BOOL	Supports multicast.
no_arp	BOOL	No address resolution protocol
point_to_point	BOOL	Interface is point-to-point link
promisc	BOOL	Interface is in promiscuous mode
up	BOOL	The interface is up
ip	STRING	Reports the IP address assigned to this interface
link	STRING	Reports status of the link
localIp	STRING	Reports the IP address assigned to this interface
localIp6	STRING	Reports the IPv6 address assigned to this interface
mtu	STRING	Reports maximum transmission unit in bytes
number	STRING	Reports cellular module's phone number
remoteIp	STRING	Reports the externally facing IP address of this interface
remoteIp6	STRING	Reports the externally facing IPv6 address of this interface
roaming	BOOL	Indicates whether or not this connection is considered roaming
rssi	STRING	Reports Received Signal Strength Indication value [0-31]
rssiDbm	STRING	Specifies the received signal strength indication in dBm
rx	OBJECT	Contains statistics on received bytes
bytes	STRING	Specifies the number of received bytes
dropped	STRING	Specifies the number of received byte drops
errors	STRING	Specifies the number of received byte errors

Element	Type	Description
frame	STRING	Specifies the number of received frames
overruns	STRING	Specifies the number of received overruns
packets	STRING	Specifies the number of received packets
tower	STRING	Reports cellular tower ID
tx	OBJECT	Contains statistics on transmitted bytes
bytes	STRING	Specifies the number of transmitted bytes
carrier	STRING	Specifies the number of transmitted carriers
collisions	STRING	Specifies the number of transmitted collisions
dropped	STRING	Specifies the number of transmitted drops
errors	STRING	Specifies the number of transmitted errors
overruns	STRING	Specifies the number of transmitted overruns
packets	STRING	Specifies the number of transmitted packets
queueLength	STRING	Specifies the number of packets that can be queued for transmission
uptime	UINT	Reports number of minutes connection has been established
pppHistory	ARRAY	Specifies daily statistics on PPP interface traffic
date	UINT	Specifies the date in format MM/DD/YYYY
rx	UINT	Specifies the number of received bytes for the day
tx	UINT	Specifies the number of transmitted bytes for the day
pppTotal	OBJECT	Total and today's statistics on PPP interface traffic
todayRx	UINT	Specifies the number of bytes received during the pre-determined period
todayTx	UINT	Specifies the number of bytes transmitted during the pre-determined period
totalRx	UINT	Specifies the number of bytes received today
totalTx	UINT	Specifies the number of bytes transmitted today
radio	OBJECT	Reports statistics and information about the cellular radio
abnd	STRING	Reports the current active band

Element	Type	Description
carrier	STRING	Designates the cellular service provider (home network)
channel	STRING	Specifies the ARFCN or UARFCN Assigned Radio Channel
cid	STRING	Specifies the cellular ID in hexadecimal
code	STRING	Specifies the MTS short model code: (H5, H6, or G3)
debug	OBJECT	Contains detailed information about the radio's current status (information may vary between radio types)
bler	STRING	Reports the block error rate (percentage)
drx	STRING	Reports the discontinuous reception cycle length in milliseconds
ecio	STRING	Indicates the signal-to-noise ratio, the ratio of the received energy to the interference energy in dB
mm	STRING	Reports the mobility management state
nom	STRING	Reports the current network operator mode
psc	STRING	Reports the primary synchronization code
rr	STRING	Reports the radio resource state
rscp	STRING	Reports the active RSCP (Received Signal Code Power in dBm)
rsrp	STRING	Reference Signals Received Power, a measurement of the received power level in an LTE cell network, it is the power of the LTE Reference Signals spread over the full bandwidth and narrowband in dBm
rsrq	STRING	Reference Signal Received Quality, indicates the quality of the received reference signal (similar to EC/IO) in dB
sd	STRING	Reports the service domain
txpwr	STRING	Reports the transmit power
firmware	STRING	Reports the radio firmware version
firmwarebuild	STRING	Reports the radio firmware build number
hardware	STRING	Reports the radio hardware revision
iccid	STRING	Reports the integrated circuit card identifier (Not available for CMDA)
imsi	STRING	Reports the radio IMEI number
lac	STRING	Reports the location area code in hexadecimal

Element	Type	Description
manufacturer	STRING	Reports the radio manufacturer
mcc	STRING	Reports the mobile country code
mdn	STRING	Reports the mobile directory number (CDMA Only)
meid	STRING	Reports the mobile equipment identifier (CDMA Only)
mipProfile	OBJECT	Specifies the mobile IP configuration (CDMA Only)
enabled	BOOL	Indicates if profile is active or not
homeAddress	STRING	Specifies the home address
id	UINT	Specifies the MIP profile ID
mnAaaSpi	STRING	Specifies the mobile node authentication, authorization, and accounting server security parameter index
mnAaaSs		Indicates whether the mobile node authentication, authorization, and accounting server shared secret is set: BOOL
mnHaSpi	STRING	Specifies the mobile node home agent security server parameter index
mnHaSs	BOOL	Indicates whether the mobile node home agent security server shared secret is set
nai	STRING	Specifies the network access identifier
primaryHa	STRING	Specifies the primary home agent
revTun	BOOL	Indicates whether reverse tunneling is enabled
secondaryHa	STRING	Specifies the secondary home agent
mnc	STRING	Specifies the mobile network (operator) code
model	STRING	Specifies the radio model [HE910-D, HE910-EUD, GE910, DE910, CE910, ...]
msid	STRING	Specifies the mobile station ID (also known as MIN or MSIN)
network	STRING	Reports the current cellular service provider (Not available for CDMA)
provisioned	BOOL	Reports whether or not the radio has been activated with a data account (CDMA only)
rac	STRING	Reports the routing area code in hexadecimal
roaming	BOOL	Indicates whether or not the radio is using the home network
rssi	UINT	Specifies the received signal strength indication

Element	Type	Description
rssidBm	STRING	Specifies the received signal strength indication in dBm
service	STRING	Specifies the service connection type [GPRS, EGPRS, WCDMA, HSDPA]
simCarrierCode	STRING	Specifies the unique carrier identifier based on the SIM card information [vz, att, ..., Unknown]
supportedCellularModes	STRING	Specifies the list of cellular modes that are supported by the modem. Example: [2g,3g,4g]
type	STRING	Specifies the radio technology category [GSM, CDMA, LTE]
radioFwuStatus	OBJECT	Displays the status of the radio firmware upgrade procedure
lastResult	STRING	Result of the last firmware upgrade attempt (UNKNOWN, SUCCESS, FAILED)
state	STRING	Current operation status (IDLE, STARTED, PRE_UPGRADE, UPGRADING, FINISHED, REBOOT)
radioSimStatus	OBJECT	Displays the SIM card status
attemptsPin	UINT	The number of attempts left to unlock the SIM card using PIN code
attemptsPuk	UINT	The number of attempts left to unlock the SIM card using PUK code
isSimInserted	BOOL	SIM card insertion indicator. True when a SIM card is inserted
isSimLocked	BOOL	SIM card lock status indicator. True when a SIM card is locked by PIN / PUK / other code
lockStatus	STRING	SIM card lock status string. Either READY, SIM PIN, SIM PUK or other state
serial	OBJECT	Reports statistics and information about the serial interface
dcd	STRING	Reports status of data carrier detect line
rx	UINT	Reports number of bytes received on serial interface
tx	UINT	Reports number of bytes transmitted on serial interface
service	OBJECT	Various service status
ddns	OBJECT	Displays the status of DDNS services
enabled	BOOL	Indicates whether the DDNS service is on
status	STRING	Displays the status of DDNS
dialOnDemand	OBJECT	Displays the status of the dial-on-demand services
enabled	BOOL	Indicates whether the dial-on-demand service is on
status	STRING	Displays the status of dial-on-demand

Element	Type	Description
failover	OBJECT	Displays the status of WAN failover services
enabled	BOOL	Indicates whether the WAN failover service is on
status	STRING	Displays the status of WAN failover
keepAlive	OBJECT	Displays the status of the keep-alive services
enabled	BOOL	Indicates whether the keep-alive service is on
status	STRING	Displays the status of keep-alive
sms	OBJECT	Displays the status of the SMS service
enabled	BOOL	Indicates whether the SMS service is on
status	STRING	Displays the status of SMS service
smtp	OBJECT	Displays the status of the SMTP service
enabled	BOOL	Indicates whether the SMTP service is on
status	STRING	Displays the status of SMTP service
sntp	OBJECT	Displays the status of the SNTP services
enabled	BOOL	Indicates whether the SNTP service is on
status	STRING	Displays the status of SNTP service
status	ARRAY	Contains a list of important system events
guid	STRING	Specifies unique traceable identifier of the event source
msg	STRING	Specifies the message describing the event
timestamp	STRING	Specifies the time when the event occurred (UTC)
type	STRING	Specifies the event classification [INFO, WARNING, ERROR]
wlan0	OBJECT	Current statistics on Wi-Fi as WAN interface
channels	ARRAY	Reports a list of available channels
countryCode	STRING	Specifies the two-character operating country code
flags	OBJECT	Various network interface flags
all_multi	BOOL	Receives all multicast packets

Element	Type	Description
broadcast	BOOL	Broadcast address valid
dynamic	BOOL	The addresses are lost when the interface goes down
loopback	BOOL	The interface is a loopback net
lower_up	BOOL	Driver signals L1 up
multicast	BOOL	Supports multicast.
no_arp	BOOL	No address resolution protocol
point_to_point	BOOL	Interface is point-to-point link
promisc	BOOL	Interface is in promiscuous mode
up	BOOL	The interface is up
ip	STRING	Specifies the IP address assigned to this interface
link	OBJECT	Reports status of the current Wi-Fi connection
RX	STRING	Reports the number of received bytes
SSID	STRING	Reports the SSID of connected network
TX	STRING	Reports status of the current Wi-Fi connection
freq	STRING	Reports the operating frequency
mac	STRING	Reports network MAC address of the Access Point
signal	STRING	Specifies the received signal strength indication in dBm
tx_bitrate	STRING	Reports the speed at which bits are transmitted over the medium
mask	STRING	Specifies the mask assigned to this interface
mtu	STRING	Specifies maximum transmission unit in byte
rx	OBJECT	Contains statistics on received bytes
bytes	STRING	Specifies the number of received bytes
dropped	STRING	Specifies the number of received byte drops
errors	STRING	Specifies the number of received byte errors
frame	STRING	Specifies the number of received frames

Element	Type	Description
overruns	STRING	Specifies the number of received overruns
packets	STRING	Specifies the number of received packets
status	STRING	Reports the state of the network interface
tx	OBJECT	Contains statistics on transmitted bytes
bytes	STRING	Specifies the number of transmitted bytes
carrier	STRING	Specifies the number of transmitted carriers
collisions	STRING	Specifies the number of transmitted collisions
dropped	STRING	Specifies the number of transmitted drops
errors	STRING	Specifies the number of transmitted errors
overruns	STRING	Specifies the number of transmitted overruns
packets	STRING	Specifies the number of transmitted packets
queueLength	STRING	Specifies the number of packets that can be queued for transmission
wlan0History	ARRAY	Specifies daily statistics on Wi-Fi as WAN interface traffic
date	UINT	Specifies the date in format MM/DD/YYYY
rx	UINT	Specifies the number of received bytes for the day
tx	UINT	Specifies the number of transmitted bytes for the day
wlan0Total	OBJECT	Total and today's statistics on the Wi-Fi as WAN interface traffic
todayRx	UINT	Specifies the number of bytes received during the pre-determined period
todayTx	UINT	Specifies the number of bytes transmitted during the pre-determined period
totalRx	UINT	Specifies the number of bytes received today
totalTx	UINT	Specifies the number of bytes transmitted today
wlan1	OBJECT	Current statistics on Wi-Fi AP interface
channels	ARRAY	Reports a list of available channels
countryCode	STRING	Specifies the two-character operating country code
flags	OBJECT	Various network interface flags

Element	Type	Description
all_multi	BOOL	Receives all multicast packets
broadcast	BOOL	Broadcast address valid
dynamic	BOOL	The addresses are lost when the interface goes down
loopback	BOOL	The interface is a loopback net
lower_up	BOOL	Driver signals L1 up
multicast	BOOL	Supports multicast.
no_arp	BOOL	No address resolution protocol
point_to_point	BOOL	Interface is point-to-point link
promisc	BOOL	Interface is in promiscuous mode
up	BOOL	The interface is up
ip	STRING	Specifies the IP address assigned to this interface
mask	STRING	Specifies the mask assigned to this interface
mtu	STRING	Specifies maximum transmission unit in bytes
rx	OBJECT	Contains statistics on received bytes
bytes	STRING	Specifies the number of received bytes
dropped	STRING	Specifies the number of received byte drops
errors	STRING	Specifies the number of received byte errors
frame	STRING	Specifies the number of received frames
overruns	STRING	Specifies the number of received overruns
packets	STRING	Specifies the number of received packets
tx	OBJECT	Contains statistics on transmitted bytes
bytes	STRING	Specifies the number of transmitted bytes
carrier	STRING	Specifies the number of transmitted carriers
collisions	STRING	Specifies the number of transmitted collisions
dropped	STRING	Specifies the number of transmitted drops

Element	Type	Description
errors	STRING	Specifies the number of transmitted errors
overruns	STRING	Specifies the number of transmitted overruns
packets	STRING	Specifies the number of transmitted packets
queueLength	STRING	Specifies the number of packets that can be queued for transmission
wlan1History	ARRAY	Specifies daily statistics on Wi-Fi AP interface traffic
date	UINT	Specifies the date in format MM/DD/YYYY
rx	UINT	Specifies the number of received bytes for the day
tx	UINT	Specifies the number of transmitted bytes for the day
wlan1Total	OBJECT	Total and today statistics on the Wi-Fi as WAN interface traffic
todayRx	UINT	Specifies the number of bytes received today
todayTx	UINT	Specifies the number of bytes transmitted today
totalRx	UINT	Specifies the number of bytes received during the pre-determined period
totalTx	UINT	Specifies the number of bytes transmitted during the pre-determined period

syslog

Description: Defines the syslog support settings

Element	Type	Description
__v	UINT	Version of model [3] (automatic)
cellDataHistory	UINT	Specifies the number of days cellular history is kept in the device
enabled	BOOL	Enables or disables remote logging (default:false)
ethDataHistory	UINT	Specifies the number of days to keep Ethernet history in the device
ipAddress	STRING	Specifies the remote syslog server's IP address
logLevel	UINT	Specifies the level of debug output to log: 20(warning), 30(info), 50(debug), 60(trace), or 100(maximum) (default:30)
outputToFile	BOOL	Enables or disables syslog output to file (default:false)
port	UINT	Specifies the remote syslog server's IP port
protocol	STRING	Specifies the remote syslog server's IP protocol : tcp, udp, tls

Element	Type	Description
saveDataLimit	UINT	Specifies the data limit to update the statistics in MB
saveTimeout	UINT	Specifies the amount of time the device has to update the statistics in seconds
wifiDataHistory	UINT	Specifies the number of days Wi-Fi history is kept in the device