Mitel 6800 Series SIP Phones

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Mitel 6800 Series SIP Phones Release 4.3.0 TR-069 Configuration Guide

58015048 REV00 - October 2016

WELCOME

This document provides information about Technical Report (TR)-069 protocol support for the 6800 Series (6863i, 6865i, 6867i, 6869i, and 6873i) SIP IP Phones.

TR-069 PROTOCOL SUPPORT

The IP Phones support the TR-069 protocol. This protocol is a bi-directional HTTP-based protocol that provides a means of communication between Customer-Premises Equipment (CPE) (e.g. IP phones) and Auto Configuration Servers (ACSs) over DSL/broadband connections. It includes both safe auto configuration and the control of other CPE management functions within an integrated framework.

> **Note:** Implementation of the TR-069 protocol follows TR-104 and TR-106 standards to the extent of data sets applicable to SIP IP phones.

Service providers can, through TR-069, use one common platform to manage (through the internet) all of their customer premise devices, regardless of the device or manufacturer. If TR-069 is enabled on the phones, when the remote ACS boots the phones, they contact the ACS and establish the configuration automatically.

In addition to configuring the phone with TR-069, you can also do the following:

- Reboot the phone
- Reset to factory defaults
- Update the firmware of the device
- Backup/restore configuration
- Upload the log file

An Administrator can configure the TR-069 parameters using the configuration files only. For more information about the TR-069 parameters, see "TR-069 Parameter Descriptions" on page 3.

PRE-STAGING SIP PHONES

There are two options available to enable TR-069 support for the phones:

a. An Administrator can provide a configuration file (that can be taken from the TFTP site or during RCS provisioning) with parameters that are specified in "TR-069 Parameter Descriptions" on page 3.

b. The phones can be branded and the branded default configuration file can contain all the necessary parameters.

After phones (with correct firmware) receive this configuration file, they will start a bootstrap procedure and connect to the ACS server.

TR-069 FUNCTIONALITY SUPPORT

XML-Remote Procedure Call (RPC) is a protocol which uses XML to encode its calls and HTTP as a transport mechanism to make requests to Internet-based servers. The following table identifies the XML-RPC methods supported for the TR-069 functionality on the phones in Release 4.3.0.

XML-RPC METHOD	CPE REQUIREMENT	SUPPORTED IN THIS RELEASE 4.3.0
GetRPCMethods	Required	Yes
SetParameterValues	Required	Limited to parameters specified in "TR-069 Parameter Descriptions" on page 3. **Note:** Users are limited to parameters that are specified by Mitel. Please contact Mitel for a list of these parameters.
GetParameterValues	Required	Limited to parameters specified in "TR-069 Parameter Descriptions" on page 3.
GetParameterNames	Required	Yes
SetParameterAttributes	Required	Yes
GetParameterAttributes	Required	Yes
AddObject	Required	No
DeleteObject	Required	No
Reboot	Required	Yes
Download	Required	Yes
Upload	Optional	Yes
FactoryReset	Optional	Yes
GetQueuedTransfers	Optional	No
GetAllQueuedTransfers	Optional	No
ScheduleInform	Optional	No
SetVouchers	Optional	No
GetOptions	Optional	No

LIMITATIONS

The following is a list of limitations with TR-069:

- TR-111 Part 1 is not supported (only Part 2 - STUN)

- The current release does not have support for the following RPC function calls:
    - AddObject
    - DeleteObject
    - GetQueuedTransfers
    - GetAllQueuedTransfers
    - ScheduleInform

- • SetVouchers
- • GetOptions
- Inform Retry Policy with increasing intervals is not supported (only constant intervals are supported)
- Active Notification is supported only for limited list of parameters
- A subset of Mitel configuration parameters are supported through TR-069
- Only a TR-069 active session is supported (single IP address)
- CPE Identification is made based on OUI + Product Class + MAC (not serial number)
- Each Voice Profile has only 1 line
- VoiceService.X_Aastra_GlobalVoiceProfile corresponds to Mitel Sip Global Settings and has only 1 line object
- VoiceService.1.VoiceProfile.{1} corresponds to Mitel SIP settings per line i and has only 1 line object
- Constant number of lines mapped to the number of Voice Profile (profile remove is not supported)

BEHAVIORS

The following is a list of behaviors with TR-069:

- Web and phone UI are still available for configuration and can override what was configured through TR-069
- The phones will notify ACS though the Active notification process for a limited subset of parameters (as defined)
- Loading of new configuration through TR-069 will require a CPE reboot

TR-069 PARAMETER DESCRIPTIONS

An Administrator can enable/disable and configure the TR-069 protocol using the following parameters in the configuration files:

- tr69
- tr69 server
- tr69 server port
- tr69 server path
- tr69 username
- tr69 password
- tr69 connection request path
- tr69 connection request port

Each of these parameters are described as follows:

PARAMETER – *tr69*	CONFIGURATION FILES startup.cfg, mac.cfg
DESCRIPTION	Enables/disables TR-069 communciation.
FORMAT	Boolean
DEFAULT VALUE	0
RANGE	0-1 0 (disabled) 1 (enabled)
EXAMPLE	tr69: 1

PARAMETER – *tr69 server*	CONFIGURATION FILES startup.cfg, mac.cfg
DESCRIPTION	Specifies the IP or domain name of the TR-069 Auto-Configuration Server (ACS). This is the server to which the phone sends TR-069 messages. Contact your System Administrator for the applicable server to specify for this parameter.
FORMAT	String
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 server: http://10.30.105.127

PARAMETER – *tr69 server port*	CONFIGURATION FILES startup.cfg, mac.cfg
DESCRIPTION	Specifies the server port of the TR-069 Auto-Configuration Server (ACS). This is the server to which the phone sends TR-069 messages. Contact your System Administrator for the applicable port to specify for this parameter.
FORMAT	String
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 server port:10301

PARAMETER –	CONFIGURATION FILES
tr69 server path	startup.cfg, mac.cfg
DESCRIPTION	Specifies the server path of the TR-069 Auto-Configuration Server (ACS). This is the path to which the phone sends TR-069 messages. Contact your System Administrator for the applicable path to specify for this parameter.
FORMAT	String
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 server path: acs/

PARAMETER –	CONFIGURATION FILES
tr69 username	startup.cfg, mac.cfg
DESCRIPTION	Username for HTTP authentication against the ACS
FORMAT	String
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 username: Joe

PARAMETER –	CONFIGURATION FILES
tr69 password	startup.cfg, mac.cfg
DESCRIPTION	Password for HTTP authentication against the ACS
FORMAT	String
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 password: 12345

PARAMETER –	CONFIGURATION FILES
tr69 connection request path	startup.cfg, mac.cfg
DESCRIPTION	Path for tr69 connection url
FORMAT	String
DEFAULT VALUE	tr69
RANGE	Not Applicable
EXAMPLE	tr69 connection request path: mitel

PARAMETER –	CONFIGURATION FILES
tr69 connection request port	**s**startup.cfg, mac.cfg
DESCRIPTION	Port for tr69 connection url
FORMAT	Integer
DEFAULT VALUE	7547
RANGE	Not Applicable
EXAMPLE	tr69 connection request port:12345

The following subsections provide additional information and parameters that are requirements for the TR-069.

SUPPORT FOR GETTING CAPABILITIES, GENERAL PROFILES, AND OTHER STATIC PARAMETERS

When the phone boots up for the first time, it will send an Inform message with the event code BOOTSRAP to the ACS server. The ACS server will ask for the supporting parameters on the phone. After this initial contact, the ACS server can read or write parameters on the phone.

VOICE PROFILE

There is one global Voice Profile called X_Aastra_GlobalVoiceProfile that corresponds to the global line on the phone. For example:

Device.VoiceService.X_Aastra_GlobalVoiceProfile corresponds to Global on the Mitel Web UI

Depending on the phone model, there are also up to 9 other Voice Profiles that correspond to a specific line on the phone. They are always located on the VoiceService SubTree, and on each line a SIP account can be configured. For example:

Device.VoiceService.VoiceProfile.1 corresponds to Line 1 on the Mitel Web UI.

Once a SIP account is fully configured, the line will be registered. Administrators also have the option to delete the Voice Profile. When a Voice Profile is deleted, the corresponding line is restored to the default.

HANDLING DYNAMIC PARAMETERS

If the ACS modifies a parameter, the SIP line is automatically configured and will register to the server.

TR-111

The phones support the TR-111 protocol as a requirement for TR-069. TR-111 applies the TR-069 to remote manage home networking devices (i.e. it can access a phone that is inside a private network from a server outside). The TR-111 standard defines two ways of managing CPE located behind Network Address Translation (NAT) routers. The parameters are automatically configured for the Administrator.

PERIODIC INFORM SUPPORT

The TR069 stack provides a function that sets up periodic inform support. On the phone, the periodic inform is done so that the phone can periodically send an inform message to the ACS server. For example, for passive notification, the phone will inform the ACS server that one or more parameters is/are modified and will send the new value in the inform message.

CONFIGURING PERIODIC INFORM USING THE CONFIGURATION FILES

PARAMETER –	CONFIGURATION FILES
tr69 periodic inform enable	startup.cfg, mac.cfg
DESCRIPTION	Enable or disable the periodic inform functionality.
FORMAT	Boolean
DEFAULT VALUE	Empty
RANGE	0 - 1 0 (Disable) 1 (Enable)
EXAMPLE	tr69 periodic inform enable: true

PARAMETER –	CONFIGURATION FILES
tr69 periodic inform interval	startup.cfg, mac.cfg
DESCRIPTION	The duration in seconds of the interval for which the CPE must attempt to connect with the ACS and call the inform method.
FORMAT	Integer
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 periodic inform interval: 600

PARAMETER –	CONFIGURATION FILES
tr69 periodic inform time	startup.cfg, mac.cfg
DESCRIPTION	An absolute time reference in UTC to determine when the CPE will initiate the periodic inform method calls.
FORMAT	String
DEFAULT VALUE	1970-01-01T00:00:00
RANGE	The STRING is specified in the following form: "**YYYY-MM-DDThh:mm:ss**" where: • YYYY (year) • MM (month) • DD (day) • T (start of the required time section) • hh (hour) • mm (minute) • ss (second)
EXAMPLE	tr69 periodic inform time: 0001-01-01T00:00:00

INFORM UPON RECEIPT OF SIP NOTIFY CHECK-SYNC SUPPORT

Configuration parameters are available allowing Adminstrators the ability to specify the behavior of the phones when they receive a SIP NOTIFY containing a check-sync event. In such scenarios, the phones can be configured to behave in one of the following ways:

•   Check the configuration files and reboot if changes are detected.

•   Redirect the SIP NOTIFY with the check-sync event to the ACS to perform a TR-069 request.

•   Redirect the SIP NOTIFY with the check-sync event to the ACS to perform a TR-069 request and trigger an HTTP GET to a defined Action URI (allowing some settings to be changed via XML that cannot be changed through TR-069). A Job ID can be specified as well, allowing the ACS to link the HTTP GET to the initiated TR-069 request.

CONFIGURING THE INFORM UPON RECEIPT OF SIP NOTIFY CHECK-SYNC FEATURE USING THE CONFIGURATION FILES

PARAMETER – *tr69 check sync*	CONFIGURATION FILES startup.cfg, mac.cfg
DESCRIPTION	Specifies the behavior of the phone when it receives a SIP NOTIFY containing a check-sync event.
FORMAT	Integer
DEFAULT VALUE	0
RANGE	0 (When a SIP NOTIFY containing a check-sync event is received the phone will check the configuration files and reboot if changes are detected). 1 (When a SIP NOTIFY containing a check-sync event is received the phone will redirect the SIP NOTIFY with the check-sync event to the ACS to perform a TR-069 request. 2 (When a SIP NOTIFY containing a check-sync event is received the phone will redirect the SIP NOTIFY with the check-sync event to the ACS to perform a TR-069 request and trigger an HTTP GET to the URI configured via the "action uri tr69 check sync" parameter.
EXAMPLE	tr69 check sync: 2

PARAMETER – *action uri tr69 check sync*	CONFIGURATION FILES startup.cfg, mac.cfg
DESCRIPTION	Specifies the URI to be called when the "tr69 check sync" parameter is defined as "2". A Job ID can be specified allowing the ACS to link the HTTP GET to the initiated TR-069 request.
FORMAT	HTTP(s) server path or Fully Qualified Domain Name
DEFAULT VALUE	Not Applicable
RANGE	Not Applicable
EXAMPLE	action uri tr69 check sync: https://acs.example.com/test.php?JobID=$$JOBID$$

CONFIGURATION BACKUP AND RESTORE

Administrators can backup and restore the TR-069 configuration on the ACS server. The ACS server makes a request for a configuration file upload and the phone responds to the request.

For a configuration file upload, the server sends the following parameters:

- URL

- File type

- Username

- Password

When the phone receives the request to backup, it uploads the local.cfg or server.cfg file to the server depending on the FileType argument defined (i.e. "1 Vendor Configuration File" = local.cfg, "X_Aastra Server Configuration File" = server.cfg). The protocol supported for configuration file upload from the CPE are HTTP, TFTP, and FTP.

LOG FILE DOWNLOAD FROM CPE

The ACS server can make a request for a log file upload. For a log file upload, the server sends the following parameters:

- URL

- File type

- Username

- Password

When the phone receives this request, it will send the file to the server with the name "**MACADDRESS_TIME_crash.log**". The protocol supported for log file upload from CPE are HTTP, TFTP, and FTP.

FIRMWARE MANAGEMENT

At any point, the ACS can trigger the CPE to upgrade its firmware image. The ACS sends asynchronous connection requests, triggering the CPE to establish a transaction session to receive a download method to upgrade its firmware. The ACS is only responsible for sending the download RPC and retrieving the TransferComplete RPC. The actions taken by the CPE itself depend on the firmware upgrade mechanism, which is not defined by TR-069.

The Administrator can schedule a firmware upgrade from the ACS by properly configuring the ACS server. Once the ACS server is configured, the phone will automatically upgrade the firmware.

The following is the process of how the phone upgrades the firmware:

- The phone receives a download RPC from the ACS.

- If the FileType argument is set to "1 Firmware Upgrade Image", a firmware upgrade is started

- The phone checks the version of firmware:

  - If the version is identical to the actual version, the phone will abort the firmware upgrade

  - If the version is different of the actual version, the phone will upgrade/downgrade the firmware

- If the firmware upgrade is successful, a reboot is initiated

PASSIVE AND ACTIVE NOTIFICATION

The phones support active and passive notification. If a parameter is configured to "Active notification", when this parameter is modified through the Mitel Web UI, an inform message with the new value of the parameter is sent to the ACS (the phone does not wait for the periodic inform).

If a parameter is configured to "Passive notification", when this parameter is modified through the Mitel Web UI, the new value of the parameter is sent to the ACS with the periodic inform.

If there is no notification set, no inform message is sent to inform the ACS when the value of the parameter is modified.

For any parameter, the notification type (Active, Passive, or None) is set on the ACS server.

Active and Passive notification is currently supported for the following parameters:

- Global parameters:
  - sip user name
  - sip proxy ip
  - sip proxy port
  - sip registrar ip
  - sip registrar port
  - sip auth name
  - sip password
  - sip stun ip
  - sip stun port
  - dhcp
  - ip
- Parameters for Line 0 to 9 (where N is the line number):
  - sip lineN user name
  - sip lineN proxy ip
  - sip lineN proxy port
  - sip lineN registrar ip
  - sip lineN registrar port
  - sip lineN auth name
  - sip lineN password

SECURED CONNECTION SUPPORT

The following parameters are available allowing Administrators the ability configure a secure connection between the CPE and ACS:

• tr69 trusted certificates

• tr69 private key

• tr69 server authentication required

Each of these parameters are described as follows:

PARAMETER –	CONFIGURATION FILES
tr69 trusted certificates	startup.cfg, mac.cfg
DESCRIPTION	Specifies a file name for a .PEM file located on the configuration server. This file contains the User-provided certificates in PEM format. These certificates are used to validate peer certificates.
	Note: The parameter "tr69 server authentication required" must be enabled in order for the phone to do a Client-authenticated TLS handshake.
FORMAT	Alphanumeric String
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 trusted certificates: ftp://admin:admin!@1.2.3.4:50/path/tr69CA.pem
	Note: In the above example, "path" represents the directory and "tr69CA.pem" represents the filename.

PARAMETER –	CONFIGURATION FILES
tr69 private key	startup.cfg, mac.cfg
DESCRIPTION	Specifies the file to download. This file contains the private key and the associated certificate.
	Note: Refer to "privateKey.pem Example" on page 13 for an example of what is contained in the privateKey.pem file.
FORMAT	Alphanumeric String
DEFAULT VALUE	Empty
RANGE	Not Applicable
EXAMPLE	tr69 private key: ftp://admin:admin!@1.2.3.4:50/path/privateKey.pem

PARAMETER –	CONFIGURATION FILES
tr69 server authentication required	startup.cfg, mac.cfg
DESCRIPTION	If this parameter is set to 0, Simple TLS handshake will be enabled. If this parameter is set to 1, Client-authenticated TLS handshake will be enabled..
FORMAT	Boolean
DEFAULT VALUE	0
RANGE	0 - 1 0 (Simple TLS handshake) 1 (Client-authenticated TLS handshake)
EXAMPLE	tr69 server authentication required: 1

PRIVATEKEY.PEM EXAMPLE

The following is an example of the contents of a privateKey.pem file:

```
-----BEGIN CERTIFICATE-----
MIICnTCCAgYCCQCH6qZc+3ElAzANBgkqhkiG9w0BAQUFADCBkjELMAkGA1UEBhMCQ0
ExEDAOBgNVBAgTB09udGFyaW8xEDAOBgNVBAcTB1Rvcm9udG8xDzANBgNVBAoTBk
Fhc3RyYTEQMA4GA1UECxMHSXBQaG9uZTEPMA0GA1UEAxMGYWZkHJhMSswKQYJ
KoZIhvcNAQkBFhxndWlsbGF1bWUuaG9ycmVhdUBhYXN0cmEuY29tMB4XDTEyMTExOT
E5MzI0OVoXDTEzMTExOTE5MzI0OVowgZIxCzAJBgNVBAYTAkNBMRAwDgYDVQQIEwd
PbnRhcmlvMRAwDgYDVQQHEwdUb3JvbnRvMQ8wDQYDVQQKEwzBYXN0cmExEDAOB
gNVBAsTB0lwUGhvbmUxDzANBgNVBAMTBmFhc3RyYTErMCkGCSqGSIb3DQEJARYcZ3
VpbGxhdW1lLmhvcnJlYXVAYWFzdHJhLmNvbTCBnzANBgkqhkiG9w0BAQEFAAOBjQAwg
YkCgYEAwFpG4OPqk4IFQQgNKu2fSkEnCkvJNbHGioKitQhb8wABrepOoEccPbvsRmctw/P
9u3J1G5JIj1FwYm2zAdP31O+yj+6bwXxFozJVqn1gahuj1eQyHW9PHbkxtlhH5/ikzpRZwXBd
cjSwyHsa+uCnvxRliIh3tkYi1ZixtcZmxLkCAwEAATANBgkqhkiG9w0BAQUFAAOBgQC0HSO
eLvMSQ6em1Sp8zry1FhXFDxcbcQJBoH/pHn7qJQ1xIuXMV831cvfHkqYfSk9b1rVULImgsIw
ZaWkKP4Hf5KMT4ACdyEBFufkVMg/HL4yPkAZeZ95oksbxNIBamXo5950djnlan55HbwX5c7
xc23oGR+8oM95Btdoc Eorvsw==
-----END CERTIFICATE-----
-----BEGIN RSA PRIVATE KEY-----
MIICXgIBAAKBgQDAWkbg4+qTggVBCA0q7Z9KQScKS8k1scaKgqK1CFvzAAGt6k6gRxw9
u+xGZy3D8/27cnUbkkiPUXBibbMB0/fU77KP7pvBfEWjMlWqfWBqG6PV5DIdb08duTG2WEf
n+KTOIFnBcF1yNLDIexr64Ke/FGWIiHe2RiLVmLG1xmbEuQIDAQABAoGBALDYDwQh5v+
48VWprlmCYAmnvtnjdVjtWejsU+T2i3rszZ50pdcLqbZEOOU9ZUEb6HJWt74ijp1dNWL5EjOj
CtzdGUH49+/wp1Nr/uq8TkAPE3vUhlVIpOWXpXO8402YDAIZJ4mOnENXvxeMSJhdLIb4D/
KbNOWfrGnbTnQZUOxRAkEA599AUyX/8FeKlgOirGe4+oRvJ+p3df+CVJ/QGdjtLQbWft7Au
GQDyB2ru2itgjIfQS5Do3KHvi4KUWo2Nsm15QJBANReSHbSyX5WUVNqJ/UH2ZN75rmNL
hHpFFKffVC2Ir2bO3W8y8L3dLQn4HdHuUrgn89PyBUoDU7DfUKCyJxZ5kUCQQCKjnOnvB
tWiVk9D2sTzt9Qg/bQSWGdV1OQMfdumpwPvfhK090h0llYMPLACGs2U7Eth/HPJ89Jq8Vq
pSdEUgCpAkAY0LOS/uqAksGKB7uHjFVGQJIjWHXrrdqsFOrlxYKIuT/ncBo3PActDgPSrFTg
hQLnjKEKp9V2QK2gWfvrGS4pAkEAkA7sttPqPFAM6NtYbZFjbvlADCozOEKigfypgpk2pYy9
sYcexvkk4ZiySQtomGnvzyVqMMF1pUfR4m4xWsumOA==
-----END RSA PRIVATE KEY-----
```

FACTORY RESET

The purpose of a factory reset is to restore the configuration to default when it is requested by the ACS server. From the ACS server, make a "factory reset" request. This will set all the parameters to the default value.

Note: A factory reset will result in the phone clearing out all configured parameters, including the TR-069 configured settings.

DEVICE DATA MODEL SUPPORT

For this release, the phones support only the configuration parameters listed in the section, "TR-069 Functionality Support" on page 2, for remote management through the TR-069 Protocol. Some ACSs (e.g. a specific home management device) requires a vendor-specific device data model in XML format before the IP phones can connect to it. See "Appendix B - XML Data Model Schema" for an example of an XML data model schema.

As defined in this data structure, some parameters have write privileges and can be changed remotely (e.g. DNSServer). However, you may have to reboot the phone in order for the change to take effect.

OUI AND PRODUCT CLASS

The above data structure is common across all the TR-069 supported Mitel SIP phones. The table below summarizes the supported phones and their corresponding OUI and Product Class.

SUPPORTED MITEL MODELS	OUI	PRODUCT CLASS
6863i	00085D	6863i
6865i	00085D	6865i
6867i	00085D	6867i
6869i	00085D	6869i
6873i	00085D	6873i

APPENDIX A - SAMPLE CONFIGURATION

The following is an example detailing how the TR-069 parameters can be defined within the configuration files:

```
# enable tr69
tr69: 1

#username and password for the ACS
tr69 username: ACS1234
tr69 password: ACS1234
#to modify the path, add the two following parameter
tr69 connection request path: mitel
tr69 connection request port: 12345

#TR-069 ACS URL for secured connection
tr69 server: https://10.10.10.2
tr69 server port: 443
tr69 server path: acs/
#private key, this must contain the private key and the certificate
tr69 private key: http://10.10.10.2/private.key
tr69 trusted certificates:  tftp://10.10.10.5/asterisk/ca.crt

tr69 server authentication required: 1
```

APPENDIX B - XML DATA MODEL SCHEMA

The following is a schema that can be used as a template for a customized XML data model:

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<xsi:tr69model xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <entry xsi:type="tr69Object" write="" mode="1">
        <name>Device.</name>
        <description></description>
        <parameter write="" mode="1">
            <name>DeviceSummary</name>
            <description></description>
        </parameter>
        <child write="" mode="1">
            <name>DeviceInfo.</name>
            <description></description>
            <parameter write="" mode="1">
                <name>HardwareVersion</name>
                <description></description>
            </parameter>
            <parameter write="" mode="1">
                <name>Manufacturer</name>
                <description></description>
            </parameter>
            <parameter write="" mode="1">
                <name>ManufacturerOUI</name>
                <description></description>
            </parameter>
            <parameter write="" mode="1">
                <name>ProductClass</name>
                <description></description>
            </parameter>
            <parameter write="" mode="1">
                <name>SerialNumber</name>
                <description></description>
            </parameter>
            <parameter write="" mode="1">
                <name>SoftwareVersion</name>
                <description></description>
            </parameter>
        </child>
        <child write="" mode="1">
            <name>GatewayInfo.</name>
            <description></description>
            <parameter write="" mode="1">
                <name>ManufacturerOUI</name>
                <description></description>
            </parameter>
            <parameter write="" mode="1">
                <name>ProductClass</name>
                <description></description>
            </parameter>
            <parameter write="" mode="1">
                <name>SerialNumber</name>
                <description></description>
            </parameter>
        </child>
```

```
<child write="" mode="1">
    <name>LAN.</name>
    <description></description>
    <parameter write="W" mode="1">
        <name>AddressingType</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>DNSServers</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>DefaultGateway</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>IPAddress</name>
        <description></description>
    </parameter>
    <parameter write="" mode="1">
         <name>MACAddress</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>SubnetMask</name>
        <description></description>
    </parameter>
    <child write="" mode="1">
        <name>Stats.</name>
        <description></description>
        <parameter write="" mode="1">
            <name>ConnectionUpTime</name>
            <description></description>
        </parameter>
        <parameter write="" mode="1">
            <name>TotalBytesReceived</name>
            <description></description>
        </parameter>
        <parameter write="" mode="1">
            <name>TotalBytesSent</name>
            <description></description>
        </parameter>
        <parameter write="" mode="1">
            <name>TotalPacketsReceived</name>
            <description></description>
        </parameter>
        <parameter write="" mode="1">
            <name>TotalPacketsSent</name>
            <description></description>
        </parameter>
    </child>
</child>
```

```
<child write="" mode="1">
    <name>ManagementServer.</name>
    <description></description>
    <parameter write="W" mode="1">
        <name>ConnectionRequestPassword</name>
        <description></description>
    </parameter>
    <parameter write="" mode="1">
        <name>ConnectionRequestURL</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>ConnectionRequestUsername</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>NATDetected</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>ParameterKey</name>
         <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>Password</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>PeriodicInformEnable</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>PeriodicInformInterval</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>PeriodicInformTime</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>STUNEnable</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>STUNServerAddress</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>STUNServerPort</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>UDPConnectionRequestAddress</name>
        <description></description>
    </parameter>
    <parameter write="W" mode="1">
        <name>URL</name>
        <description></description>
```

```
            </parameter>
            <parameter write="W" mode="1">
                <name>Username</name>
                <description></description>
            </parameter>
        </child>
    </entry>
</xsi:tr69model>
```

APPENDIX C - STANDARD SUPPORTED TR-069 PARAMETERS

The following is a list of the standard supported TR-069 parameters. This list includes the Mitel specific set of extended parameters that Mitel supports (for example, X_Aastra_RTCP_Report).

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device				
Device.DeviceSummary	R	string	1024	-
Device.DeviceInfo				
Device.DeviceInfo.Manufacturer	R	string	64	-
Device.DeviceInfo.ManufacturerOUI	R	string	6	-
Device.DeviceInfo.ProductClass	R	string	64	-
Device.DeviceInfo.SerialNumber	R	string	64	-
Device.DeviceInfo.HardwareVersion	R	string	64	-
Device.DeviceInfo.SoftwareVersion	R	string	64	-
Device.DeviceInfo.Description	R	string	256	-
Device.DeviceInfo.ModelName	R	string	64	-
Device.DeviceInfo.SpecVersion	R	string	64	-
Device.DeviceInfo.ProvisioningCode	R	string	64	-
Device.ManagementServer				
Device.ManagementServer.URL	R/W	string	256	-
Device.ManagementServer.Username	R/W	string	256	-
Device.ManagementServer.Password	R/W	string	256	-
Device.ManagementServer.PeriodicInformEnable	R/W	boolean	-	-
Device.ManagementServer.PeriodicInformInterval	R/W	int	-	-
Device.ManagementServer.PeriodicInformTime	R/W	string	256	-
Device.ManagementServer.ParameterKey	R/W	string	256	-
Device.ManagementServer.ConnectionRequestURL	R	string	256	-

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.ManagementServer.ConnectionRequestUsername	R/W	string	256	-
Device.ManagementServer.ConnectionRequestPassword	R/W	string	256	-
Device.ManagementServer.STUNEnable	R/W	boolean	-	-
Device.ManagementServer.STUNServerAddress	R/W	string	256	-
Device.ManagementServer.STUNServerPort	R/W	int	-	-
Device.ManagementServer.NATDetected	R/W	boolean	-	-
Device.ManagementServer.UDPConnectionRequestAddress	R/W	string	256	-
Device.LAN				
Device.LAN.AddressingType	R/W	string	256	-
Device.LAN.IPAddress	R/W	string	256	-
Device.LAN.SubnetMask	R/W	string	256	-
Device.LAN.DefaultGateway	R/W	string	256	-
Device.LAN.DNSServers	R/W	string	256	-
Device.LAN.MACAddress	R	string	256	-
Device.Services				
Device.Services.VoiceServiceNumberOfEntries	R	int	-	-
Device.Services.VoiceService				
Device.Services.VoiceService.1				
Device.Services.VoiceService.1.VoiceProfileNumberOfEntries	R	int	-	-
Device.Services.VoiceService.1.Capabilities				
Device.Services.VoiceService.1.Capabilities.MaxProfileCount	R	int	-	-
Device.Services.VoiceService.1.Capabilities.MaxLineCount	R	int	-	-
Device.Services.VoiceService.1.Capabilities.MaxSessionsPerLine	R	int	-	-
Device.Services.VoiceService.1.Capabilities.MaxSessionCount	R	int	-	-
Device.Services.VoiceService.1.Capabilities.Regions	R	string	256	-
Device.Services.VoiceService.1.Capabilities.RTCP	R	boolean	-	-

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.Services.VoiceService.1.Capabilities.SRTP	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.SRTPKeyingMethods	R	string	256	-
Device.Services.VoiceService.1.Capabilities.SRTPEncryptionKeySizes	R	string	256	-
Device.Services.VoiceService.1.Capabilities.RTPRedundancy	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.DSCPCoupled	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.EthernetTaggingCoupled	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.PSTNSoftSwitchOver	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.FaxT38	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.FaxPassThrough	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.ModemPassThrough	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.ToneGeneration	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.ToneDescriptionsEditable	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.PatternBasedToneGeneration	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.FileBasedToneGeneration	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.RingGeneration	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.RingDescriptionsEditable	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.PatternBasedRingGeneration	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.RingPatternEditable	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.FileBasedRingGeneration	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.DigitMap	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.NumberingPlan	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.ButtonMap	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.X_Aastra_RTCP_Report	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.SIP				
Device.Services.VoiceService.1.Capabilities.SIP.Role	R	int	-	-
Device.Services.VoiceService.1.Capabilities.SIP.Transports	R	string	-	-

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.Services.VoiceService.1.Capabilities.SIP.EventSubscription	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.SIP.ResponseMap	R	boolean	-	-
Device.Services.VoiceService.1.Capabilities.SIP.TLSAuthenticationProtocols	R	string	256	-
Device.Services.VoiceService.1.Capabilities.SIP.TLSAuthenticationKeySizes	R	string	256	-
Device.Services.VoiceService.1.Capabilities.SIP.TLSEncryptionProtocols	R	string	256	-
Device.Services.VoiceService.1.Capabilities.SIP.TLSEncryptionKeySizes	R	string	256	-
Device.Services.VoiceService.1.Capabilities.SIP.TLSKeyExchangeProtocols	R	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Enable	R/W	string	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Reset	R/W	boolean	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.NumberOfLines	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Name	R/W	string	64	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.STUNEnable	R/W	boolean	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.STUNServer	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.X_Aastra_STUNServerPort	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.X_Aastra_DTMFMethod	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.X_Aastra_DTMFOutBand	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.ProxyServer	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.ProxyServerPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.RegistrarServer	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.RegistrarServerPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.UserAgentDomain	R	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.OutboundProxy	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.OutboundProxyPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_BackupProxyServer	R/W	string	256	-

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_BackupProxyServerPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_BackupOutboundProxySupport	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_BackupOutboundProxy	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_BackupOutboundProxyPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_mode	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_centralizedConference	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_listUri	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.TimerT1	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.TimerT2	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.ReInviteExpires	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.RegisterExpires	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.DSCPMark	R/W	int	-	0-63
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_SymmetricUDPSignaling	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_Aastra_SIPTransportProtocol	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_AastraUseBasicCodecs	R/W	int	-	0-65535
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_AastraCustomizedCodecs	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_AastraTaggingEnabled	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.SIP.X_AastraTOSPriorityMap	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.DSCPMark	R/W	int	-	0-63
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.VLANIDMark	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.EthernetPriorityMark	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.RTCP				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.RTCP.Enable	R/W	boolean	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.RTCP.LocalCName	R/W	string	64	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.RTCP.X_AastraRTCPDSCPMark	R/W	int	-	0-64

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.RTCP.X_AastraRTCPPort	R/W	int	-	0-127
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.RTCP.SRTP				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.RTP.RTCP.SRTP.X_Aastra_SRTP_mode	R/W	int	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.X_Aastra_ScreenName	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.X_Aastra_ScreenName2	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.SIP				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.SIP.AuthUserName	R/W	string	128	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.SIP.AuthPassword	R/W	string	128	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.SIP.URI	R	string	389	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.CallingFeatures				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.CallingFeatures.Enable	R/W	boolean	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.CallingFeatures.CallerIDName	R/W	string	256	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.CallingFeatures.MWIEnable	R/W	boolean	-	-
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.-Ringer				
Device.Services.VoiceService.1.X_Aastra_GlobalVoiceProfile.Line.1.-Ringer.X_Aastra_RingTone	R	int	-	-
Device.Services.VoiceService.1.VoiceProfile				
Device.Services.VoiceService.1.VoiceProfile.i (see note on)				
Device.Services.VoiceService.1.VoiceProfile.i.Enable	R	boolean	-	-
Device.Services.VoiceService.1.VoiceProfile.i.Reset	R	boolean	-	-
Device.Services.VoiceService.1.VoiceProfile.i.NumberOfLines	R	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.Name	R/W	string	64	-
Device.Services.VoiceService.1.VoiceProfile.i.STUNEnable	R	boolean	-	-
Device.Services.VoiceService.1.VoiceProfile.i.STUNServer	R	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.X_Aastra_STUNServerPort	R	int	-	0-65535

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.Services.VoiceService.1.VoiceProfile.i.X_Aastra_DTMFMethod	R/W	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.X_Aastra_DTMFOutBand	R	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP				
Device.Services.VoiceService.1.VoiceProfile.i.SIP.ProxyServer	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.ProxyServerPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.RegistrarServer	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.RegistrarServerPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.UserAgentDomain	R	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.OutboundProxy	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.OutboundProxyPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_BackupProxyServer	R/W	string	-	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_BackupProxyServerPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_BackupOutboundProxySupport	R	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_BackupOutboundProxy	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_BackupOutboundProxyPort	R/W	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_mode	R/W	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_centralizedConference	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_listUri	R	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.TimerT1	R	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.TimerT2	R	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.ReInviteExpires	R	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.DSCPMark	R	int	-	0-63
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_SymmetricUDPSignaling	R	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_Aastra_SIPTransportProtocol	R	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_AastraUseBasicCodecs	R	int	-	0-65535
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_AastraCustomizedCodecs	R	string	256	-

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_AastraTaggingEnabled	R	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.SIP.X_AastraTOSPriorityMap	R	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.RTP				
Device.Services.VoiceService.1.VoiceProfile.i.RTP.DSCPMark	R	int	-	0-63
Device.Services.VoiceService.1.VoiceProfile.i.RTP.VLANIDMark	R	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.RTP.EthernetPriorityMark	R	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.RTP.RTCP				
Device.Services.VoiceService.1.VoiceProfile.i.RTP.RTCP.Enable	R/W	boolean	-	-
Device.Services.VoiceService.1.VoiceProfile.i.RTP.RTCP.LocalCName	R/W	string	64	-
Device.Services.VoiceService.1.VoiceProfile.i.RTP.RTCP.X_AastraRTCPDSCPMark	R	int	-	0-63
Device.Services.VoiceService.1.VoiceProfile.i.RTP.RTCP.X_AastraRTCPPort	R/W	int	-	0-127
Device.Services.VoiceService.1.VoiceProfile.i.RTP.RTCP.SRTP				
Device.Services.VoiceService.1.VoiceProfile.i.RTP.RTCP.SRTP.X_Aastra_SRTP_mode	R/W	int	-	-
Device.Services.VoiceService.1.VoiceProfile.i.Line				
Device.Services.VoiceService.1.VoiceProfile.i.Line.1				
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.X_Aastra_ScreenName	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.X_Aastra_ScreenName2	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.SIP				
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.SIP.AuthUserName	R/W	string	128	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.SIP.AuthPassword	R/W	string	128	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.SIP.URI	R	string	389	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.CallingFeatures				
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.CallingFeatures.Enable	R	boolean	-	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.CallingFeatures.CallerIDName	R/W	string	256	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.CallingFeatures.MWIEnable	R	boolean	-	-
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.-Ringer				

PARAMETER	READ/WRITE	TYPE	SIZE	RANGE
Device.Services.VoiceService.1.VoiceProfile.i.Line.1.-Ringer.X_Aastra_RingTone	R	int	-	-

Note: With parameters containing VoiceProfile.i, the "i" indicates the Voice Profile number. Depending on the phone model, there are up to 9 Voice Profiles corresponding to a specific line on the phone. See "Voice Profile" on page 6 more information

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