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BROADSOFT PARTNER CONFIGURATION GUIDE VEGASTREAM VEGA 100

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Version 1.0

Messaging
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BroadWorks® Guide

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Document Revision History

Version	Reason for Change
1.0	Initial release - Vega 100 R060S032 and Broadsoft R11.1
1.1	Update to include parameter use_maddr_in_contact

1 Overview

This document describes the configuration procedures required for a VegaStream Vega 100 to make full use of the capabilities of BroadWorks.

The Vega 100 is one of the many access devices that interoperate with BroadWorks.

The Vega 100 uses the Session Initiation Protocol (SIP) to communicate with BroadWorks for call control. It also translates voice to audio packets for transmission across a packet network.

This guide describes the specific configuration items that are important for use with BroadWorks. It does not describe the purpose and use of all configuration items on the Vega 100. For those details, refer to the Vega Primer available from VegaStream [1].

2 BroadWorks Validation Package Support Level

Devices are validated according to *BroadWorks Validation Packages*. Each package validates a subset of features or items. This section describes the device's support level for a *BroadWorks Validation Package* as well as the features or items in the package that are not supported. For specific issues, refer to section 3.2, *Interoperability Issues*. For a complete list of items validated per package, refer to *Appendix B: BroadWorks Validation Package Test Items*.

BroadWorks Validation Package	Support Level	Items Not Supported
Basic Call	Full	
BroadWorks Enhanced Services	Partial	Vega 100 gateways support: Basic CommPilot Functions Voice Messaging Audio MWI Priority Alerting Priority Call Waiting Alternate Numbers Ring Splash Advanced Call Control - CommPilot Hold (SIP only) Advanced Call Control - CommPilot Talk (SIP only) Advanced Call Control - CommPilot Dial/AutoAnswer (SIP only) Blocked Calling Line ID Call Park Retrieve – Answer with Hold Vega 100 do not support: Voice Messaging Visual MWI Remote Restart
DUT Enhanced Services	Partial	Only the following items are supported: FAX Passthrough FAX T38
Redundancy	Full	
Session Border Controller Interface	Full	
Enhanced Shared Call Appearance	None	

3 Device Capabilities and Known Interoperability Issues

This section describes the features supported by the Vega 100, as well as BroadWorks interoperability issues and impact. The following table describes capabilities.

Verified Revisions shows the results of testing a specific BroadWorks version with a specific partner's device under test (DUT) version.

Compatible Revisions indicates the maintenance versions that should interface properly with BroadWorks.

Note that BroadSoft tests only the current BroadWorks release with the current device firmware. Customers who wish to run BroadWorks and device firmware versions that have not been verified can mitigate their risk by running the appropriate *BroadWorks Release Test Plan* on that software combination.

3.1 Capabilities

Device Type	SIP Gateway
Lines and Appearances	60 simultaneous calls, one instance
Speaker/Power/Bridge	None
Verified Revisions	BroadWorks R11.1 VegaStream R060S032
Compatible Revisions	N/A
DNS	SRV-records A-records
Redundancy Enabled	Yes
Outbound Proxy	Yes
Codecs	G.711u, G.711a, G.729a, G.723.1
RFC 2833 (out-of-band DTMF signaling)	Yes
T.38 Fax	Yes
Services	Blind transfer call reception
Shared Call Appearance	N/A
Enhanced IP Phone Configuration	N/A

3.2 Interoperability Issues

This section lists the known interoperability issues between BroadWorks and partner release(s). For more information on issues related to the particular software release, refer to the partner release notes.

ExtraView Issues	ExtraView Title and Description	Partner Releases			
	All BroadWorks Releases	R060S032			
1	Session Timer Vega 100 does not support Session Timer. (Tests 18-22)	X			
2	National number with CIC Vega 100 does not support National number with Carrier Identification Code (CIC). (Test 32)	X			
3	Options message used instead of Ping In test case 42, instead of PINGing, the SIP OPTIONS message was sent, and an OK reply looked for.	X			
4	CLID Vega 100 does not support Caller ID identification and privacy using RFC 3323 and RFC3325. (Tests 46, 48 and 49)	X			
5	SIP CPC header Vega 100 does not support cpc, calling part category in FROM: field. (Tests 50 and 51)	X			
6	SIP OTG header Vega 100 does not support otg, Originating Trunk Group in FROM: field. (Test 52)	X			
7	SIP Diversion header Vega 100 does not support Diversion header. (Tests 53 and 54)	X			
8	CNAM support Vega 100 does not support querying a separate CNAM server for the Calling Party Name. (Test 55)	X			
9	Initiate redirect Vega 100 does not initiate redirection. (Test 67)	X			
10	Initiate Supplementary services Initiate Vega 100 does not initiate Supplementary services. (Tests 76-91)	X			

4 Configuration

The Vega 100 can be configured by downloading a configuration file using FTP, TFTP or through its command line interface or its embedded web server interface. The following examples describe how to set the parameters in a configuration file. This configuration description assumes the Vega 100 will use DHCP to obtain an IP address, FTP server, TFTP server, and other network settings. The Vega 100 should be configured to load the configuration file each time it resets or re-synchronizes. For detailed information on automated provisioning, refer to the 'Autoexec' section in the *Vega Primer [1]*.

The capabilities of the *Vega 100* have been verified for use with BroadWorks based upon the settings described below. For more information on the meaning, purpose, and applicability of the individual configuration items, refer to the *Vega Primer [1]*.

Configuration Files

Files Provided by Partner	Level	Description
Vega100_R060S032.abs	System	Contains the device firmware load.
Vega100_BW_cfg_01.txt	System	Contains configurable parameters that apply to all devices in a given deployment.

4.1 System-Level Configuration

This section describes system-wide configuration items which will generally be required for each Vega 100 to work with BroadWorks. Proxy and outbound proxy settings and subscriber-specific settings are described in the following sections.

Step	Command	Purpose
System Configuration File vega100_BW_cfg_01.txt		
Step 1	Set up SIP Timers. set .sip.T1="2000" set .sip.T2="4000"	The SIP timers T1 and T2 can be configured
Step 2	Set up Authentication. set .sip.auth.user.1.enable="1" set .sip.auth.user.1.username="2408881445" set .sip.auth.user.1.password="My_pswd" set .sip.auth.user.1.prefix_token_index="0" set .sip.auth.user.1.suffix_token_index="0" set .sip.auth.user.1.srce="IF:02" set .sip.auth.user.2.enable="1" set .sip.auth.user.2.username="2408881433" set .sip.auth.user.2.password="My_pswd_2" set .sip.auth.user.2.prefix_token_index="0" set .sip.auth.user.2.suffix_token_index="0" set .sip.auth.user.2.srce="IF:02"	Set up authentication users and passwords, e.g. User 1= '2408881445 Passwd = My_pswd User 2= '2408881433 Passwd = My_pswd_2
Step 3	Set up Registration.	Set up registration details,

Step	Command	Purpose
	<pre> purge .sip.reg.user cp .sip.reg.user.1 set .sip.reg.user.1.auth_user_index="1" set .sip.reg.user.1.dn="1445" set .sip.reg.user.1.enable="1" set .sip.reg.user.1.prefix_token_index="0" set .sip.reg.user.1.suffix_token_index="0" set .sip.reg.user.1.username="2408881445" cp .sip.reg.user.2 set .sip.reg.user.2.auth_user_index="2" set .sip.reg.user.2.dn="1433" set .sip.reg.user.2.enable="1" set .sip.reg.user.2.prefix_token_index="0" set .sip.reg.user.2.suffix_token_index="0" set .sip.reg.user.2.username="2408881433" set .sip.registrar.max_registrars="3" set .sip.registrar.min_valid_response="200" set .sip.registrar.mode="dnssrv" set .sip.registrar.timeout_ms="5000" purge .sip.registrar cp .sip.registrar.1 set .sip.registrar.1.enable="1" set .sip.registrar.1.ipname="as.broadworks.net" set .sip.registrar.1.port="5060" set .sip.reg_expiry="600" </pre>	<p>e.g. to set up two registrations,</p> <p>Registration 1 with public address: 2408881445@IP_address_of_proxy and contact: 1445@IP_address_of_Vega</p> <p>And registration 2 with public address: 2408881433@IP_address_of_proxy and contact: 1433@IP_address_of_Vega</p>
Step 4	<p>Set up Audio.</p> <pre> set .sip.RTP_AVP="0,8,4,18" set .sip.rfc2833_payload="101" </pre>	<p>Define the codecs that the Vega will support, and the rfc 2833 payload indicator</p>
Step 5	<p>Set up Dial plan.</p> <pre> set .planner.profile.1.plan.1.src="IF:02,TEL: <.*>" set .planner.profile.1.plan.1.dest="IF:99,TEL: <1>" set .planner.profile.1.plan.2.src="IF:99,TEL: <.*>" set .planner.profile.1.plan.2.dest="IF:02,TEL: <1>" </pre>	<p>Configure the dial plan</p> <ul style="list-style-type: none"> – calls from telephony interface 02 will pass on any telephone number dialed to BroadWorks – calls from BroadWorks (interface 99) will be routed to telephony interface 02, and the dialed number received will be used to dial out into the telephony network <p>For overlap dialing set the timeout to 5 seconds</p>

Step	Command	Purpose
	<pre>set .pots.profile.1.dtmf_dial_digit="#" set .pots.profile.1.dtmf_dial_timeout="5"</pre>	
Step 6	<pre>Set up maddr operation Set _advanced.sip.use_maddr_in_contact=1</pre>	<p>Only needed for releases R7.2S014 and above</p> <p>Enables the maddr field in the contact header</p>

4.2 SIP Proxy Configuration

In a typical BroadWorks deployment, the *Vega 100* resides on a private network. A network address translator (NAT) is deployed between the *Vega 100* and BroadWorks. The NAT translates IP packets between the private network and the network upon which BroadWorks resides so that BroadWorks can communicate with the *Vega 100*.

The IP addresses within the SIP messages created by the *Vega 100* or by BroadWorks are only meaningful on its own side of the NAT. Whereas a NAT re-maps IP packets from one network to another, a session border controller (SBC) or application layer gateway (ALG) converts the contents of SIP messages to match the mapping in the NAT.

Also, a typical BroadWorks deployment includes both redundant Application Servers and redundant session border controllers. To configure a gateway to use a session border controller, two addresses must be configured on the gateway: the SIP Proxy address and the Outbound Proxy address. In short, the SIP Proxy address should point to the BroadWorks Application Server(s) and the Outbound Proxy address should point to the SBC(s). This section describes how to choose the specific values to enter in these fields.

To understand how to provision a redundant BroadWorks system, refer to the *BroadWorks Redundancy Guide* [2].

For further information on handling NAT with a *Vega 100*, refer to the 'NAT Configuration' guide [4] and 'Configuring *Vega* gateways for use with an outbound proxy' [5].

4.2.1 SIP Proxy Domain Name Configuration Requirements

A unique Address of Record (AoR) is required to be provisioned on both BroadWorks and the gateway so that SIP messages can be correlated between a specific BroadWorks subscriber and the gateway.

BroadWorks uses one of two rules for validating the domain name of an Address of Record (AoR) indicated by the phone:

- 1) The phone's domain name must match the BroadWorks subscriber's Line/Port domain name, found in the device configuration section of the user profile.
- 2) The phone's domain name must be listed in the system alias table. In this case, BroadWorks does not use the domain name in the Line/Port field.

The following table describes which rule BroadWorks will use based on software release. Use the Application Server CLI to view/modify the parameter useAliasForDomain under System/Domain.

Release	Value of useAliasForDomain	Rule Invoked
Release 11 and later	False	Rule 1
Release 10 MP4 and later MPs	True	Rule 2

Release 10.1	Not applicable	Rule 2
Release 10 MP3 and earlier		
Release 9 and earlier		

4.2.2 Non-Redundant Configuration

The following table describes how the SIP Proxy Server and Outbound Proxy fields should be configured in a non-redundant configuration.

Step	Command	Purpose
Using AoR rule 1 with DNS		
Step 1	<pre>Set up a single proxy. purge .sip.proxy cp .sip.proxy.1 set .sip.proxy.1.enable="1" set .sip.proxy.1.ipname="revas.broadworks.net" set .sip.proxy.1.port="5060" set .sip.req_uri_port="5060" set ._advanced.sip.reg_domain_to_header="0"</pre>	Configure a single proxy, using the DNS name of the BroadWorks server
Using AoR Rule 1 without DNS or a non DNS resolvable BroadWorks domain name		
	<pre>Set up a single proxy. purge .sip.proxy cp .sip.proxy.1 set .sip.proxy.1.enable="1" set .sip.proxy.1.ipname="12.39.208.251" set .sip.proxy.1.port="5060" set .sip.req_uri_port="5060" set ._advanced.sip.reg_domain_to_header="0"</pre>	Configure a single proxy, using the IP address of the BroadWorks server
Using AoR Rule 2		
	<pre>Set up a single proxy. purge .sip.proxy cp .sip.proxy.1 set .sip.proxy.1.enable="1" {set .sip.proxy.1.ipname="12.39.208.251"} or ... {set .sip.proxy.1.ipname="revas.broadworks.net"} set .sip.proxy.1.port="5060" set .sip.req_uri_port="5060" set ._advanced.sip.reg_domain_to_header="0"</pre>	Configure a single proxy, using the IP address or DNS name of the BroadWorks server (as required)

4.2.3 Redundant Configuration

The following table describes how the SIP Proxy Server and Outbound Proxy fields should be configured in a redundant configuration. Note that DNS support is required for the redundant configuration.

Step	Command	Purpose
Using AoR rule 1 with DNS resolvable BroadWorks domain name		
Step 1	<pre> Set up multiple proxy entries. set .sip.proxy.min_valid_response="180" set .sip.proxy.mode="normal" set .sip.proxy.timeout_ms="5000" purge .sip.proxy cp .sip.proxy.1 set .sip.proxy.1.enable="1" set .sip.proxy.1.ipname="revas.broadworks.net" set .sip.proxy.1.port="5060" cp .sip.proxy.2 set .sip.proxy.2.enable="1" set .sip.proxy.2.ipname="ns.broadworks.net" set .sip.proxy.2.port="5060" cp .sip.proxy.3 set .sip.proxy.3.enable="1" set .sip.proxy.3.ipname="as.broadworks.net" set .sip.proxy.3.port="5060" set .sip.req_uri_port="5060" set ._advanced.sip.req_domain_to_header="0" </pre>	<p>Configure multiple proxy entries, using DNS names for the BroadWorks servers</p> <p>If DNSSRV is to be used for providing redundancy, set sip.proxy.mode=dnssrv</p>
Using AoR Rule 1 without a DNS resolvable BroadWorks domain name		
	<pre> Set up multiple proxy entries. set .sip.proxy.min_valid_response="180" set .sip.proxy.mode="normal" set .sip.proxy.timeout_ms="5000" purge .sip.proxy cp .sip.proxy.1 set .sip.proxy.1.enable="1" set .sip.proxy.1.ipname="12.39.208.251" set .sip.proxy.1.port="5060" cp .sip.proxy.2 </pre>	<p>Configure multiple proxy entries, using the IP addresses for the BroadWorks servers</p>

Step	Command	Purpose
	<pre> set .sip.proxy.2.enable="1" set .sip.proxy.2.ipname="12.39.208.253" set .sip.proxy.2.port="5060" cp .sip.proxy.3 set .sip.proxy.3.enable="1" set .sip.proxy.3.ipname="12.39.208.252" set .sip.proxy.3.port="5060" set .sip.req_uri_port="5060" set ._advanced.sip.req_domain_to_header="0" </pre>	
Using AoR Rule 2		
	<p>Set up multiple proxy entries.</p> <pre> set .sip.proxy.min_valid_response="180" set .sip.proxy.mode="normal" set .sip.proxy.timeout_ms="5000" purge .sip.proxy cp .sip.proxy.1 set .sip.proxy.1.enable="1" {set .sip.proxy.1.ipname="revas.broadworks.net"} or ... {set .sip.proxy.1.ipname="12.39.208.251"} set .sip.proxy.1.port="5060" cp .sip.proxy.2 set .sip.proxy.2.enable="1" {set .sip.proxy.2.ipname="ns.broadworks.net"} or ... {set .sip.proxy.2.ipname="12.39.208.253"} set .sip.proxy.2.port="5060" cp .sip.proxy.3 set .sip.proxy.3.enable="1" {set .sip.proxy.3.ipname="as.broadworks.net"} or ... {set .sip.proxy.3.ipname="12.39.208.252"} set .sip.proxy.3.port="5060" </pre>	<p>Configure multiple proxy entries, using IP addresses or DNS names for the BroadWorks servers (as required)</p> <p>If DNSSRV is to be used for providing redundancy, set sip.proxy.mode=dnssrv</p>

Step	Command	Purpose
	<pre>set .sip.req_uri_port="5060" set ._advanced.sip.reg_domain_to_header="0"</pre>	

4.2.4 NAT Configuration

The Outbound Proxy should indicate the location of the session border controller (SBC) or application layer gateway (ALG). For redundant SBCs, different vendors have differing requirements. Some redundant SBCs share an IP address, while others require a FQDN resolving to the IP addresses of the redundant SBCs. Even those SBCs implementing a shared IP address may require a FQDN in the case of geographic redundancy. Consult the partner configuration guide for the SBC in question to determine which method to use.

Step	Command	Purpose
NAT Traversal SBC Provisioning System-Wide Configuration File		
Step 1	<pre>Set up outbound proxy. purge .sip.proxy cp .sip.proxy.1 set .sip.proxy.1.enable="1" {set .sip.proxy.1.ipname="192.168.1.24"} or ... {set .sip.proxy.1.ipname="vs.ob_proxy"} set .sip.proxy.1.port="5060"</pre>	Configure the outbound proxy using an IP address or DNS name (as required)
Step 2	<pre>Set up a single proxy. {set .sip.reg_domain="revas.broadworks.net"} or ... {set .sip.reg_domain="12.39.208.251"} set .sip.req_uri_port="5060" set ._advanced.sip.reg_domain_to_header="1"</pre>	Configure the destination SIP proxy address using an IP address or DNS name (as required)
Step 3	<pre>Set up a single registrar. set .sip.reg_enable="1" {set .sip.registrar.1.ipname="as.broadworks.net"} or ... {.sip.registrar.1.ipname="12.39.208.252"} set .sip.registrar.1.port="5060"</pre>	Configure the destination Registrar address using an IP address or DNS name (as required)

4.3 Subscriber-Level Configuration Parameters

This section provisions each line with the parameters that are unique for that line; for example, the SIP signaling and registration parameters.

Provisioning a subscriber to register with BroadWorks allows calls to terminate to the subscriber's line. Registration requires that a unique Address of Record (AoR) is provisioned on BroadWorks and the phone; provisioning an AoR on BroadWorks consists of setting the line/port parameter to a unique value within the Application Server cluster.

The recommended line/port (AoR) setting is the subscriber's directory number (DN). If a DN does not exist the alternative would be the phone's MAC address and line number. However, using the BroadWorks UserID is not recommended when setting the line/port.

Before BroadWorks Release 11, BroadWorks required each SIP device to use an AoR whose user portion was unique while the host portion (domain) must be in the system alias list, which can be viewed on the command line interface (CLI) of the Application Server at the `System/Alias` level.

Starting with Release 11, BroadWorks can be configured to take the complete AoR into account when identifying the corresponding subscriber. This is done on the command line interface (CLI) of the Application Server at the `System/Domain` level by setting the value of "useAliasForDomain" to "false". When configured this way, the entire AoR must match the subscriber's entire line/port configuration, including both the user portion and the host portion (domain). This allows the same user portion to be used by multiple subscribers within a given BroadWorks deployment so long as their host portions (domains) differ.

Step	Command	Purpose
Vega Parameters		
Step 1	Set up internal TDM. <code>set _advanced.media.direct_TDM_enable=0</code>	Route TDM through DSPs even when calls are within a single gateway
Step 2	Set up call leg matching <code>set _advanced.sip.match_req_uri=1</code>	Call leg matching should include the REQ_URI in the comparison
Step 3	Set up session description <code>set</code> <code>._advanced.sip.sdp.sess_desc_connection="1"</code>	'c=' header is part of SDP session description
Step 4	Set up single media indicator <code>set</code> <code>._advanced.sip.sdp.t38_single_media="1"</code>	Only use a single 'm=' header in the SDP
Step 5	Set up on-hold functionality. <code>set</code> <code>_advanced.sip.sdp.answer.zero_ip_on_hold=1</code>	When on hold send IP address as 0.0.0.0
Step 6	Set up dynamic RTP <code>cp .lan.private_subnet.2</code> <code>set .lan.private_subnet.2.ip="0.0.0.0"</code> <code>set .lan.private_subnet.2.name="Any_IP"</code> <code>set</code> <code>.lan.private_subnet.2.subnet="0.0.0.0"</code> <code>cp .lan.private_subnet_list.2</code> <code>set .lan.private_subnet_list.2.list="2"</code>	Set up dynamic RTP such that a Vega which receives media for a call from a different IP address / port from that indicated in the SDP will switch to sending media to the IP address / port it is receiving the media from. This assists in NAT traversal of RTP traffic

Step	Command	Purpose
	<pre> set .lan.private_subnet_list.2.name="Any_IP" set .media.control.1.dynamic_update.enable="1" set .media.control.1.dynamic_update.frequency=" 50" set .media.control.1.dynamic_update.ip_follow=" 1" set .media.control.1.dynamic_update.private_subn et_list_index="2" </pre>	<p>of RTP traffic.</p>

4.4 Shared Call Appearance Configuration

This functionality is not applicable to a trunking gateway like a Vega 100.

5 Enhanced IP Phone Configuration

The Vega 100 does not support this feature.

6 Appendix A: Sample Vega 100 Configuration Files

NOTE: The following samples are examples and should be used only as a reference. DO NOT CUT AND PASTE THESE EXAMPLES TO GENERATE YOUR CONFIGURATION FILES. Use the configuration files obtained from VegaStream with the specific release to generate your configuration files.

6.1 System Default File: vega100_BW_cfg_01.txt

NOTE: This is an example file and should be used for reference only.

```
;
; Script generated using
; PUT TFTP:V100_26APRL.txt <all>
; CONFIGVERSION:this_hostname:01/01/1999 00:01:08
;
set ._advanced.auto_apply="0"
set ._advanced.block_calls="0"
set ._advanced.blocking_cause="34"
set ._advanced.boot_debug="0"
set ._advanced.log_in_secs="0"
set ._advanced.oem_banner="0"
set ._advanced.autoexec.enable="1"
set ._advanced.autoexec.lastconfig="none"
set ._advanced.autoexec.scriptfile1="%iscript.txt"
set ._advanced.autoexec.scriptfile2="defaultscript.txt"
purge ._advanced.cause_mapping
cp ._advanced.cause_mapping.1
set ._advanced.cause_mapping.1.C1="1"
set ._advanced.cause_mapping.1.C2="2"
set ._advanced.cause_mapping.1.C3="3"
set ._advanced.cause_mapping.1.C6="6"
set ._advanced.cause_mapping.1.C7="7"
set ._advanced.cause_mapping.1.C16="16"
set ._advanced.cause_mapping.1.C17="17"
set ._advanced.cause_mapping.1.C18="18"
set ._advanced.cause_mapping.1.C19="19"
set ._advanced.cause_mapping.1.C21="21"
set ._advanced.cause_mapping.1.C22="22"
set ._advanced.cause_mapping.1.C26="26"
set ._advanced.cause_mapping.1.C27="27"
```

```

set ._advanced.cause_mapping.1.C28="28"
set ._advanced.cause_mapping.1.C29="29"
set ._advanced.cause_mapping.1.C30="30"
set ._advanced.cause_mapping.1.C31="31"
set ._advanced.cause_mapping.1.C34="34"
set ._advanced.cause_mapping.1.C38="38"
set ._advanced.cause_mapping.1.C41="41"
set ._advanced.cause_mapping.1.C42="42"
set ._advanced.cause_mapping.1.C43="43"
set ._advanced.cause_mapping.1.C44="44"
set ._advanced.cause_mapping.1.C47="47"
set ._advanced.cause_mapping.1.C49="49"
set ._advanced.cause_mapping.1.C50="50"
set ._advanced.cause_mapping.1.C57="57"
set ._advanced.cause_mapping.1.C58="58"
set ._advanced.cause_mapping.1.C63="63"
set ._advanced.cause_mapping.1.C65="65"
set ._advanced.cause_mapping.1.C66="66"
set ._advanced.cause_mapping.1.C69="69"
set ._advanced.cause_mapping.1.C70="70"
set ._advanced.cause_mapping.1.C79="79"
set ._advanced.cause_mapping.1.C81="81"
set ._advanced.cause_mapping.1.C82="82"
set ._advanced.cause_mapping.1.C83="83"
set ._advanced.cause_mapping.1.C84="84"
set ._advanced.cause_mapping.1.C85="85"
set ._advanced.cause_mapping.1.C86="86"
set ._advanced.cause_mapping.1.C88="88"
set ._advanced.cause_mapping.1.C91="91"
set ._advanced.cause_mapping.1.C95="95"
set ._advanced.cause_mapping.1.C96="96"
set ._advanced.cause_mapping.1.C97="97"
set ._advanced.cause_mapping.1.C98="98"
set ._advanced.cause_mapping.1.C99="99"
set ._advanced.cause_mapping.1.C100="100"
set ._advanced.cause_mapping.1.C101="101"
set ._advanced.cause_mapping.1.C102="102"
set ._advanced.cause_mapping.1.C111="111"
set ._advanced.cause_mapping.1.C127="127"
set ._advanced.cause_mapping.1.name="default"
set ._advanced.debug.content="0"
set ._advanced.debug.entity="0"
set ._advanced.debug.entity2="0"

```

```
set ._advanced.debug.module="0"
set ._advanced.debug.module2="0"
set ._advanced.debug.watchdog="on"
set ._advanced.dsp.dtmf_cadence_off_time="150"
set ._advanced.dsp.dtmf_cadence_on_time="250"
set ._advanced.dsp.dtmf_gain="10000"
set ._advanced.dsp.dtmf_threshold="-80"
set ._advanced.dsp.fax_disconnect_delay="200"
set ._advanced.dsp.poll_interrupt="1"
set ._advanced.dsp.poll_period="8"
set ._advanced.dsp.rtp_pkt_buffer="4"
set ._advanced.dsp.t38_diags="0"
set ._advanced.isdn.alert_with_progress="1"
set ._advanced.isdn.chanid_excl="0"
set ._advanced.isdn.disc_with_progress="1"
set ._advanced.isdn.end_to_end_call_proceeding="0"
set ._advanced.isdn.frame_test_mode="0"
set ._advanced.isdn.int_id_present="0"
set ._advanced.isdn.interface_id="0"
set ._advanced.isdn.nt_alt_chan_if_collision="1"
set ._advanced.isdn.nt_initial_frame_allowance="3"
set ._advanced.isdn.qsig_mode="non_contiguous"
set ._advanced.isdn.restart_l2_after_disc="1"
set ._advanced.isdn.send_progress_as_alerting="0"
set ._advanced.isdn.switch_clock="1"
set ._advanced.isdn.te_initial_frame_allowance="0"
set ._advanced.isdn.test_frame_len="100"
set ._advanced.isdn.tn_heap_debug="0"
set ._advanced.isdn.user_dialtone="0"
set ._advanced.isdn.user_progress="0"
set ._advanced.lan.dns_rev_enable="0"
set ._advanced.lan.help_path="Help/default/usrguide/framedefn.htm"
set ._advanced.lan.h323_push_enable="1"
set ._advanced.lan.link_down_cause="38"
set ._advanced.lan.rtp_checksum_enable="1"
set ._advanced.lan.tcp_max_retries="2"
set ._advanced.lan.tcp_max_time="4"
set ._advanced.lan.tcp_push_enable="0"
set ._advanced.lan.tftp_ping_test="1"
set ._advanced.lan.tftp_timeout="20"
set ._advanced.lan.transfer_method="TFTP"
  set ._advanced.lan.ftp.abort_before_close="0"
  set ._advanced.lan.ftp.anonymous_login="1"
```

```

set ._advanced.lan.ftp.ping_test="1"
set ._advanced.lan.ftp.timeout="20"
set ._advanced.lan.ftp.username="whatever"
purge ._advanced.lan.port_range
cp ._advanced.lan.port_range.1
  set ._advanced.lan.port_range.1.max="19999"
  set ._advanced.lan.port_range.1.min="10000"
  set ._advanced.lan.port_range.1.name="rtp_range1"
  set ._advanced.lan.port_range.1.protocol="udp"
cp ._advanced.lan.port_range.2
  set ._advanced.lan.port_range.2.max="19999"
  set ._advanced.lan.port_range.2.min="10000"
  set ._advanced.lan.port_range.2.name="t38_tcp_range1"
  set ._advanced.lan.port_range.2.protocol="tcp"
cp ._advanced.lan.port_range.3
  set ._advanced.lan.port_range.3.max="80"
  set ._advanced.lan.port_range.3.min="80"
  set ._advanced.lan.port_range.3.name="webserver"
  set ._advanced.lan.port_range.3.protocol="tcp"
cp ._advanced.lan.port_range.4
  set ._advanced.lan.port_range.4.max="5060"
  set ._advanced.lan.port_range.4.min="5060"
  set ._advanced.lan.port_range.4.name="sip_udp"
  set ._advanced.lan.port_range.4.protocol="udp"
cp ._advanced.lan.port_range.5
  set ._advanced.lan.port_range.5.max="5060"
  set ._advanced.lan.port_range.5.min="5060"
  set ._advanced.lan.port_range.5.name="sip_tcp"
  set ._advanced.lan.port_range.5.protocol="tcp"
purge ._advanced.lan.port_range_list
cp ._advanced.lan.port_range_list.1
  set ._advanced.lan.port_range_list.1.list="1"
  set ._advanced.lan.port_range_list.1.name="rtp_ports"
cp ._advanced.lan.port_range_list.2
  set ._advanced.lan.port_range_list.2.list="2"
  set ._advanced.lan.port_range_list.2.name="t38_tcp_ports"
set ._advanced.lan.telnet.port="23"
set ._advanced.lan.webserver.port="80"
set ._advanced.media.V25_control="fax"
set ._advanced.media.direct_TDM_enable="0"
set ._advanced.media.rtp_port_range_list="1"
set ._advanced.media.rx_udp_source_check="0"
set ._advanced.media.sysload="85"

```

```
set ._advanced.media.sysload_period="400"
purge ._advanced.pacing
cp ._advanced.pacing.1
set ._advanced.pacing.1.delay="20"
set ._advanced.pacing.1.threshold="10"
cp ._advanced.pacing.2
set ._advanced.pacing.2.delay="50"
set ._advanced.pacing.2.threshold="20"
cp ._advanced.pacing.3
set ._advanced.pacing.3.delay="80"
set ._advanced.pacing.3.threshold="40"
cp ._advanced.pacing.4
set ._advanced.pacing.4.delay="150"
set ._advanced.pacing.4.threshold="60"
cp ._advanced.pacing.5
set ._advanced.pacing.5.delay="250"
set ._advanced.pacing.5.threshold="80"
set ._advanced.rfc2833.audio_packet_sync="1"
set ._advanced.rfc2833.audio_with_dtmf="1"
set ._advanced.rfc2833.marker_bit="0"
set ._advanced.rfc2833.one_shot="0"
set ._advanced.rfc2833.tx_volume="10"
purge ._advanced.setup_mapping
cp ._advanced.setup_mapping.1
set ._advanced.setup_mapping.1.name="default"
set ._advanced.setup_mapping.1.called_party_number.plan="isdn_telephony"
set ._advanced.setup_mapping.1.called_party_number.type="national"
set ._advanced.setup_mapping.1.calling_party_number.plan="isdn_telephony"
set ._advanced.setup_mapping.1.calling_party_number.presentation="allowed"
set ._advanced.setup_mapping.1.calling_party_number.screening="not_screened"
set ._advanced.setup_mapping.1.calling_party_number.type="national"
set ._advanced.setup_mapping.1.nsf.coding="0"
set ._advanced.setup_mapping.1.nsf.enable="0"
set ._advanced.setup_mapping.1.nsf.id="NULL"
set ._advanced.setup_mapping.1.nsf.id_plan="0"
set ._advanced.setup_mapping.1.nsf.id_type="0"
set ._advanced.setup_mapping.1.nsf.service="1"
set ._advanced.sip.anonymous_display_name="Anonymous"
set ._advanced.sip.bye_also_invite_to_proxy="0"
set ._advanced.sip.disc_if_progress_with_cause="0"
set ._advanced.sip.early_ok_timer="0"
set ._advanced.sip.ignore_udp_bye="0"
set ._advanced.sip.ignore_udp_invite="0"
```

```
set ._advanced.sip.international_prefix="off"
set ._advanced.sip.match_req_uri="1"
set ._advanced.sip.max_forks="3"
set ._advanced.sip.national_prefix="off"
set ._advanced.sip.outgoing_call_setup_to="15000"
set ._advanced.sip.parse_rpid="0"
set ._advanced.sip.progress_if_media="0"
set ._advanced.sip.refer_invite_to_proxy="0"
set ._advanced.sip.reg_domain_from_header="0"
set ._advanced.sip.reg_domain_to_header="0"
set ._advanced.sip.tel_srce="req_uri"
set ._advanced.sip.use_auth_user="0"
set ._advanced.sip.user_agent_header="1"
set ._advanced.sip.use_maddr_in_contact="1"
set ._advanced.sip.3xx_invite_to_proxy="0"
set ._advanced.sip.info.tx_dtmf="0"
set ._advanced.sip.info.tx_hookflash="1"
set ._advanced.sip.invite.registered="0"
set ._advanced.sip.redirect.preserve_to_header="1"
set ._advanced.sip.sdp.direction_attribute="on"
set ._advanced.sip.sdp.fqdn="1"
set ._advanced.sip.sdp.maxptime_enable="0"
set ._advanced.sip.sdp.ptime_mode="0"
set ._advanced.sip.sdp.sess_desc_connection="1"
set ._advanced.sip.sdp.t38_single_media="1"
set ._advanced.sip.sdp.answer.zero_ip_on_hold="1"
set ._advanced.sip.tcp.cleanup_old_sockets="0"
set ._advanced.sip.tcp.enable="1"
set ._advanced.t38.allow_MR_page_compress="1"
set ._advanced.t38.allow_ecm="1"
set ._advanced.t38.enable_Eflags_in_first_DIS="1"
set ._advanced.t38.enable_TFoP="1"
set ._advanced.t38.enable_scan_line_fix_up="1"
set ._advanced.t38.tcp.collect_hdlc="0"
set ._advanced.t38.tcp.connect_on_demand="1"
set ._advanced.t38.tcp.port_range_list="2"
set ._advanced.t38.tcp.suppress_t30="0"
set ._advanced.t38.udp.port_range_list="1"
purge .call_control.timers
cp .call_control.timers.1
  set .call_control.timers.1.T301_timeout="90"
  set .call_control.timers.1.T301_cause="18"
set .dsl.bus_master="1"
```



```
set .dsl.framing="crc4"
set .dsl.line_encoding="hdb3"
set .dsl.network="etsi"
set .dsl.topology="e1"
purge .dsl.port
cp .dsl.port.1
  set .dsl.port.1.clock_master="0"
  set .dsl.port.1.disc_on_user_suspend="0"
  set .dsl.port.1.enable="1"
  set .dsl.port.1.e1_rx_short_haul="1"
  set .dsl.port.1.lyr1="g711Alaw64k"
  set .dsl.port.1.nt="0"
  set .dsl.port.1.t1_tx_equalization="sh220_330"
  set .dsl.port.1.cas.dial_format="."
  set .dsl.port.1.cas.digit_dial_timeout="6"
  set .dsl.port.1.cas.info="dtmf"
  set .dsl.port.1.cas.signal="em_wink"
  set .dsl.port.1.cas.tone_delay="50"
purge .dsl.port.1.group
cp .dsl.port.1.group.1
  set .dsl.port.1.group.1.alloc_chan="default"
  set .dsl.port.1.group.1.cost="1"
  set .dsl.port.1.group.1.dn="*"
  set .dsl.port.1.group.1.first_chan="1"
  set .dsl.port.1.group.1.interface="01"
  set .dsl.port.1.group.1.last_chan="auto"
  set .dsl.port.1.group.1.tunnel_mode="off"
  set .dsl.port.1.isdn.cause_mapping_index="0"
  set .dsl.port.1.isdn.dtmf_dial_digit="#"
  set .dsl.port.1.isdn.dtmf_dial_timeout="5"
  set .dsl.port.1.isdn.setup_mapping_index="0"
cp .dsl.port.2
  set .dsl.port.2.clock_master="1"
  set .dsl.port.2.disc_on_user_suspend="0"
  set .dsl.port.2.enable="1"
  set .dsl.port.2.e1_rx_short_haul="1"
  set .dsl.port.2.lyr1="g711Alaw64k"
  set .dsl.port.2.nt="1"
  set .dsl.port.2.t1_tx_equalization="sh220_330"
  set .dsl.port.2.cas.dial_format="."
  set .dsl.port.2.cas.digit_dial_timeout="6"
  set .dsl.port.2.cas.info="dtmf"
  set .dsl.port.2.cas.signal="em_wink"
```

```
set .dsl.port.2.cas.tone_delay="50"
purge .dsl.port.2.group
cp .dsl.port.2.group.1
  set .dsl.port.2.group.1.alloc_chan="default"
  set .dsl.port.2.group.1.cost="1"
  set .dsl.port.2.group.1.dn="*"
  set .dsl.port.2.group.1.first_chan="1"
  set .dsl.port.2.group.1.interface="02"
  set .dsl.port.2.group.1.last_chan="auto"
  set .dsl.port.2.group.1.tunnel_mode="off"
set .dsl.port.2.isdn.cause_mapping_index="0"
set .dsl.port.2.isdn.dtmf_dial_digit="*"
set .dsl.port.2.isdn.dtmf_dial_timeout="2"
set .dsl.port.2.isdn.setup_mapping_index="0"
set .dsp.g711Alaw64k.VADU_threshold="0"
set .dsp.g711Alaw64k.VP_FIFO_max_delay="160"
set .dsp.g711Alaw64k.VP_FIFO_nom_delay="60"
set .dsp.g711Alaw64k.echo_tail_size="16"
set .dsp.g711Alaw64k.idle_noise_level="-7000"
set .dsp.g711Alaw64k.packet_time_max="30"
set .dsp.g711Alaw64k.packet_time_min="10"
set .dsp.g711Alaw64k.packet_time_step="10"
set .dsp.g711Alaw64k.rx_gain="0"
set .dsp.g711Alaw64k.tx_gain="0"
  set .dsp.g711Alaw64k.data.EC_enable="disable"
  set .dsp.g711Alaw64k.voice.EC_enable="enable"
set .dsp.g711Ulaw64k.VADU_threshold="0"
set .dsp.g711Ulaw64k.VP_FIFO_max_delay="160"
set .dsp.g711Ulaw64k.VP_FIFO_nom_delay="40"
set .dsp.g711Ulaw64k.echo_tail_size="16"
set .dsp.g711Ulaw64k.idle_noise_level="-7000"
set .dsp.g711Ulaw64k.packet_time_max="30"
set .dsp.g711Ulaw64k.packet_time_min="10"
set .dsp.g711Ulaw64k.packet_time_step="10"
set .dsp.g711Ulaw64k.rx_gain="0"
set .dsp.g711Ulaw64k.tx_gain="0"
  set .dsp.g711Ulaw64k.data.EC_enable="disable"
  set .dsp.g711Ulaw64k.voice.EC_enable="enable"
set .dsp.g729AnnexA.VADU_threshold="0"
set .dsp.g729AnnexA.VP_FIFO_max_delay="500"
set .dsp.g729AnnexA.VP_FIFO_nom_delay="60"
set .dsp.g729AnnexA.echo_tail_size="16"
set .dsp.g729AnnexA.idle_noise_level="-7000"
```

```

set .dsp.g729AnnexA.packet_time_max="80"
set .dsp.g729AnnexA.packet_time_min="10"
set .dsp.g729AnnexA.packet_time_step="10"
set .dsp.g729AnnexA.rx_gain="0"
set .dsp.g729AnnexA.tx_gain="0"
  set .dsp.g729AnnexA.voice.EC_enable="enable"
set .dsp.g729.VADU_threshold="0"
set .dsp.g729.VP_FIFO_max_delay="500"
set .dsp.g729.VP_FIFO_nom_delay="80"
set .dsp.g729.echo_tail_size="16"
set .dsp.g729.idle_noise_level="-7000"
set .dsp.g729.packet_time_max="80"
set .dsp.g729.packet_time_min="10"
set .dsp.g729.packet_time_step="10"
set .dsp.g729.rx_gain="0"
set .dsp.g729.tx_gain="0"
  set .dsp.g729.voice.EC_enable="enable"
set .dsp.g7231.VADU_threshold="0"
set .dsp.g7231.VP_FIFO_max_delay="500"
set .dsp.g7231.VP_FIFO_nom_delay="30"
set .dsp.g7231.echo_tail_size="16"
set .dsp.g7231.idle_noise_level="-7000"
set .dsp.g7231.packet_time_max="60"
set .dsp.g7231.packet_time_min="30"
set .dsp.g7231.packet_time_step="30"
set .dsp.g7231.rx_gain="0"
set .dsp.g7231.tx_gain="0"
  set .dsp.g7231.voice.EC_enable="enable"
set .dsp.t38.FP_FIFO_nom_delay="300"
set .dsp.t38.cd_threshold="-33"
set .dsp.t38.network_timeout="150"
set .dsp.t38.packet_time="40"
set .dsp.t38.rate_max="144"
set .dsp.t38.rate_min="24"
set .dsp.t38.rate_step="24"
set .dsp.t38.timeout="15"
set .dsp.t38.tx_level="-8"
set .lan.ftp="0.0.0.0"
set .lan.gateway="200.100.50.1"
set .lan.ip="200.100.50.19"
set .lan.name="this_hostname"
set .lan.ntp="0.0.0.0"
set .lan.ntp_local_offset="0000"

```

```
set .lan.ntp_poll_interval="0"
set .lan.qos_profile="1"
set .lan.subnet="255.255.255.0"
set .lan.tftp="10.203.106.200"
set .lan.use_dhcp="1"
  set .lan.dhcp.get_dns="0"
  set .lan.dhcp.get_gateway="1"
  set .lan.dhcp.get_ntp="1"
  set .lan.dhcp.get_tftp="0"
purge .lan.dns_server
cp .lan.dns_server.1
  set .lan.dns_server.1.ip="203.145.184.13"
cp .lan.dns_server.2
  set .lan.dns_server.2.ip="0.0.0.0"
cp .lan.dns_server.3
  set .lan.dns_server.3.ip="0.0.0.0"
purge .lan.host
cp .lan.host.1
  set .lan.host.1.ip="127.0.0.1"
  set .lan.host.1.name="loopback"
set .lan.nat.enable="0"
set .lan.nat.private_subnet_list_index="1"
purge .lan.nat.port_entry
cp .lan.nat.port_entry.1
  set .lan.nat.port_entry.1.external_port_min="0"
  set .lan.nat.port_entry.1.internal_port_range_index="0"
  set .lan.nat.port_entry.1.name="port_name"
purge .lan.nat.port_list
cp .lan.nat.port_list.1
  set .lan.nat.port_list.1.list="all"
  set .lan.nat.port_list.1.name="default_port_list"
purge .lan.nat.profile
cp .lan.nat.profile.1
  set .lan.nat.profile.1.external_ip="0.0.0.0"
  set .lan.nat.profile.1.port_list_index="0"
set .lan.phy.full_duplex="0"
set .lan.phy.10baset="1"
set .lan.phy.100basetx="1"
purge .lan.private_subnet
cp .lan.private_subnet.1
  set .lan.private_subnet.1.ip="0.0.0.0"
  set .lan.private_subnet.1.name="subnet_name"
  set .lan.private_subnet.1.subnet="255.255.255.0"
```

```
cp .lan.private_subnet.2
  set .lan.private_subnet.2.ip="0.0.0.0"
  set .lan.private_subnet.2.name="Any_IP"
  set .lan.private_subnet.2.subnet="0.0.0.0"
purge .lan.private_subnet_list
cp .lan.private_subnet_list.1
  set .lan.private_subnet_list.1.list="all"
  set .lan.private_subnet_list.1.name="default_subnet_list"
cp .lan.private_subnet_list.2
  set .lan.private_subnet_list.2.list="2"
  set .lan.private_subnet_list.2.name="Any_IP"
set .lan.8021q.accept_non_tagged="1"
set .lan.8021q.enable="0"
set .logger.bill_warn_threshold="90"
set .logger.max_billings="100"
set .logger.max_messages="100"
set .logger.prompt="%n%p>"
  set .logger.radius.format="cisco_overload"
  set .logger.radius.max_retry_time="4000"
  set .logger.radius.name="this_radius_hostname"
  set .logger.radius.retries="4"
  set .logger.radius.retry_time="500"
  set .logger.radius.window_size="10"
purge .logger.radius.server
cp .logger.radius.server.1
  set .logger.radius.server.1.enable="0"
  set .logger.radius.server.1.ipname="0.0.0.0"
  set .logger.radius.server.1.port="1813"
  set .logger.radius.server.1.secret="testing123"
cp .logger.radius.server.2
  set .logger.radius.server.2.enable="0"
  set .logger.radius.server.2.ipname="0.0.0.0"
  set .logger.radius.server.2.port="1813"
  set .logger.radius.server.2.secret="testing123"
purge .media.cap
cp .media.cap.1
  set .media.cap.1.codec="g7231"
cp .media.cap.2
  set .media.cap.2.codec="g711Alaw64k"
cp .media.cap.3
  set .media.cap.3.codec="g711Ulaw64k"
cp .media.cap.4
  set .media.cap.4.codec="t38tcp"
```

```

cp .media.cap.5
set .media.cap.5.codec="t38udp"
set .media.control.1.dynamic_update.enable="1"
set .media.control.1.dynamic_update.frequency="50"
set .media.control.1.dynamic_update.ip_follow="1"
set .media.control.1.dynamic_update.private_subnet_list_index="2"
purge .media.packet.g711Alaw64k
cp .media.packet.g711Alaw64k.1
set .media.packet.g711Alaw64k.1.VADU_enable_flag="1"
set .media.packet.g711Alaw64k.1.out_of_band_DTMF="0"
set .media.packet.g711Alaw64k.1.packet_time="30"
cp .media.packet.g711Alaw64k.2
set .media.packet.g711Alaw64k.2.VADU_enable_flag="0"
set .media.packet.g711Alaw64k.2.out_of_band_DTMF="0"
set .media.packet.g711Alaw64k.2.packet_time="20"
purge .media.packet.g711Ulaw64k
cp .media.packet.g711Ulaw64k.1
set .media.packet.g711Ulaw64k.1.VADU_enable_flag="1"
set .media.packet.g711Ulaw64k.1.out_of_band_DTMF="0"
set .media.packet.g711Ulaw64k.1.packet_time="20"
cp .media.packet.g711Ulaw64k.2
set .media.packet.g711Ulaw64k.2.VADU_enable_flag="0"
set .media.packet.g711Ulaw64k.2.out_of_band_DTMF="0"
set .media.packet.g711Ulaw64k.2.packet_time="20"
purge .media.packet.g729AnnexA
cp .media.packet.g729AnnexA.1
set .media.packet.g729AnnexA.1.VADU_enable_flag="1"
set .media.packet.g729AnnexA.1.out_of_band_DTMF="0"
set .media.packet.g729AnnexA.1.packet_time="20"
purge .media.packet.g729
cp .media.packet.g729.1
set .media.packet.g729.1.VADU_enable_flag="0"
set .media.packet.g729.1.out_of_band_DTMF="0"
set .media.packet.g729.1.packet_time="20"
purge .media.packet.g7231
cp .media.packet.g7231.1
set .media.packet.g7231.1.VADU_enable_flag="1"
set .media.packet.g7231.1.out_of_band_DTMF="1"
set .media.packet.g7231.1.packet_time="30"
purge .media.packet.t38tcp
cp .media.packet.t38tcp.1
set .media.packet.t38tcp.1.max_rate="144"
set .media.packet.t38tcp.1.tcf="local"

```

```
purge .media.packet.t38udp
cp .media.packet.t38udp.1
  set .media.packet.t38udp.1.max_rate="144"
  set .media.packet.t38udp.1.tcf="transferred"
purge .mib2.communities
cp .mib2.communities.1
  set .mib2.communities.1.get="1"
  set .mib2.communities.1.name="public"
  set .mib2.communities.1.set="1"
  set .mib2.communities.1.traps="1"
purge .mib2.managers
cp .mib2.managers.1
  set .mib2.managers.1.community="public"
  set .mib2.managers.1.ip="0.0.0.0"
  set .mib2.managers.1.subnet="255.255.255.0"
set .mib2.system.sysContact="www.abcdefghijklwhatever.com"
set .mib2.system.sysLocation="PlanetEarth"
purge .planner.group
cp .planner.group.1
  set .planner.group.1.active_times="0000-2359"
  set .planner.group.1.cause="0"
  set .planner.group.1.gatekeeper="off"
  set .planner.group.1.lan="off"
  set .planner.group.1.name="Default"
  set .planner.group.1.priority="0"
set .planner.post_profile.enable="0"
purge .planner.post_profile.plan
cp .planner.post_profile.plan.1
  set .planner.post_profile.plan.1.dest="TYPE:international"
  set .planner.post_profile.plan.1.enable="0"
  set .planner.post_profile.plan.1.name="International"
  set .planner.post_profile.plan.1.srce="TEL:00<.*>"
purge .planner.profile
cp .planner.profile.1
  set .planner.profile.1.enable="1"
  set .planner.profile.1.name="default"
  purge .planner.profile.1.plan
  cp .planner.profile.1.plan.1
    set .planner.profile.1.plan.1.cost="0"
    set .planner.profile.1.plan.1.dest="IF:99,TEL:<1>"
    set .planner.profile.1.plan.1.group="0"
    set .planner.profile.1.plan.1.name="default"
    set .planner.profile.1.plan.1.srce="IF:02,TEL:<.*>"
```

```
cp .planner.profile.1.plan.2
  set .planner.profile.1.plan.2.cost="0"
  set .planner.profile.1.plan.2.dest="IF:02,TEL:<1>"
  set .planner.profile.1.plan.2.group="0"
  set .planner.profile.1.plan.2.name="new_plan"
  set .planner.profile.1.plan.2.srce="IF:99,TEL:<.*>"
set .planner.whitelist.enable="0"
purge .planner.whitelist
cp .planner.whitelist.1
  set .planner.whitelist.1.name="default"
  set .planner.whitelist.1.number="IF:.*"
set .qos_profile.stats.cdr_detail="low"
set .qos_profile.stats.enable="0"
set .qos_profile.stats.max_no cdrs="100"
set .qos_profile.stats.monitoring_interval="300"
set .qos_profile.stats.monitoring_threshold="50"
set .qos_profile.stats.qos_warn_threshold="80"
  set .qos_profile.stats.events.call.average_jitter.enable="0"
  set .qos_profile.stats.events.call.average_jitter.threshold="50"
  set .qos_profile.stats.events.call.jitter_buf_overflow.enable="0"
  set .qos_profile.stats.events.call.jitter_buf_underflow.enable="0"
  set .qos_profile.stats.events.call.packet_error_rate.enable="0"
  set .qos_profile.stats.events.call.packet_error_rate.threshold_rate="5"
  set .qos_profile.stats.events.call.packet_loss.enable="0"
  set .qos_profile.stats.events.call.packet_loss.threshold_rate="5"
  set .qos_profile.stats.events.call.pkt_playout_delay.enable="0"
  set .qos_profile.stats.events.call.pkt_playout_delay.threshold="250"
  set .qos_profile.stats.events.gateway.average_jitter.enable="0"
  set .qos_profile.stats.events.gateway.average_jitter.threshold="50"
  set .qos_profile.stats.events.gateway.lan_link.enable="0"
  set .qos_profile.stats.events.gateway.packet_loss.enable="0"
  set .qos_profile.stats.events.gateway.packet_loss.threshold_rate="5"
  set .qos_profile.stats.events.gateway.pkt_playout_delay.enable="0"
  set .qos_profile.stats.events.gateway.pkt_playout_delay.threshold="250"
set .qos_profile.stats.report.frequency="50"
set .qos_profile.stats.report.method="off"
set .qos_profile.stats.report.type="gateway"
purge .qos_profile
cp .qos_profile.1
  set .qos_profile.1.name="Default"
  set .qos_profile.1.tos.default_priority="0x00"
  set .qos_profile.1.tos.media_priority="0x00"
  set .qos_profile.1.tos.signalling_priority="0x00"
```



```

set .qos_profile.1.8021q.default_priority="0"
set .qos_profile.1.8021q.media_priority="0"
set .qos_profile.1.8021q.signalling_priority="0"
set .qos_profile.1.8021q.vlan_id="0"
set .qos_profile.1.8021q.vlan_name="Default"
cp .qos_profile.2
set .qos_profile.2.name="Voice"
set .qos_profile.2.tos.default_priority="0x00"
set .qos_profile.2.tos.media_priority="0x00"
set .qos_profile.2.tos.signalling_priority="0x00"
set .qos_profile.2.8021q.default_priority="0"
set .qos_profile.2.8021q.media_priority="0"
set .qos_profile.2.8021q.signalling_priority="0"
set .qos_profile.2.8021q.vlan_id="0"
set .qos_profile.2.8021q.vlan_name="Voice"
set .sip.PRACK="off"
set .sip.RTP_AVP="0,8,4,18 "
set .sip.T1="500"
set .sip.T2="4000"
set .sip.accept_non_proxy_invites="0"
set .sip.cost="1"
set .sip.dtmf_info="model"
set .sip.dtmf_transport="rfc2833"
set .sip.enable_fax="1"
set .sip.enable_modem="1"
set .sip.enable_t38="1"
set .sip.fax_detect="terminating"
set .sip.interface="99"
set .sip.local_rx_port="5060"
set .sip.max_calls="60"
set .sip.media_control_profile="0"
set .sip.modem_detect="terminating"
set .sip.qos_profile="0"
set .sip.reg_domain="as.broadworks.net"
set .sip.reg_enable="1"
set .sip.reg_expiry="600"
set .sip.reg_on_startup="0"
set .sip.reg_req_uri_port="5060"
set .sip.req_uri_port="5060"
set .sip.rfc2833_payload="101"
set .sip.sig_transport="udp"
set .sip.signalling_app_id="none"
purge .sip.auth.user

```

```
cp .sip.auth.user.1
  set .sip.auth.user.1.enable="1"
  set .sip.auth.user.1.password="My_pswd"
  set .sip.auth.user.1.prefix_token_index="0"
  set .sip.auth.user.1.srce="IF:02"
  set .sip.auth.user.1.suffix_token_index="0"
  set .sip.auth.user.1.username="2408881445"
cp .sip.auth.user.2
  set .sip.auth.user.2.enable="1"
  set .sip.auth.user.2.password="My_pswd_2"
  set .sip.auth.user.2.prefix_token_index="0"
  set .sip.auth.user.2.srce="IF:02"
  set .sip.auth.user.2.suffix_token_index="0"
  set .sip.auth.user.2.username="2408881433"
set .sip.proxy.min_valid_response="180"
set .sip.proxy.mode="dnssrv"
set .sip.proxy.timeout_ms="5000"
purge .sip.proxy
cp .sip.proxy.1
  set .sip.proxy.1.enable="1"
  set .sip.proxy.1.ipname="revas.broadworks.net"
  set .sip.proxy.1.port="5060"
cp .sip.proxy.2
  set .sip.proxy.2.enable="0"
  set .sip.proxy.2.ipname="ns.broadworks.net"
  set .sip.proxy.2.port="5060"
cp .sip.proxy.3
  set .sip.proxy.3.enable="0"
  set .sip.proxy.3.ipname="as.broadworks.net"
  set .sip.proxy.3.port="5060"
purge .sip.reg.user
cp .sip.reg.user.1
  set .sip.reg.user.1.auth_user_index="1"
  set .sip.reg.user.1.dn="1445"
  set .sip.reg.user.1.enable="1"
  set .sip.reg.user.1.prefix_token_index="0"
  set .sip.reg.user.1.suffix_token_index="0"
  set .sip.reg.user.1.username="2408881445"
cp .sip.reg.user.2
  set .sip.reg.user.2.auth_user_index="2"
  set .sip.reg.user.2.dn="1433"
  set .sip.reg.user.2.enable="1"
  set .sip.reg.user.2.prefix_token_index="0"
```

```
set .sip.reg.user.2.suffix_token_index="0"
set .sip.reg.user.2.username="2408881433"
set .sip.registrar.max_registrars="3"
set .sip.registrar.min_valid_response="200"
set .sip.registrar.mode="dnssrv"
set .sip.registrar.timeout_ms="5000"
purge .sip.registrar
cp .sip.registrar.1
set .sip.registrar.1.enable="1"
set .sip.registrar.1.ipname="as.broadworks.net"
set .sip.registrar.1.port="5060"
purge .sip.token
cp .sip.token.1
set .sip.token.1.value="unit1"
cp .sip.token.2
set .sip.token.2.value="01"
set .tones.busytone_seq="3"
set .tones.callwait1_seq="6"
set .tones.callwait2_seq="7"
set .tones.dialtone_seq="1"
set .tones.fastbusy_seq="4"
set .tones.ringback_seq="5"
set .tones.stutterd_seq="2"
purge .tones.def
cp .tones.def.1
set .tones.def.1.amp1="6000"
set .tones.def.1.amp2="6000"
set .tones.def.1.amp3="0"
set .tones.def.1.amp4="0"
set .tones.def.1.freq1="350"
set .tones.def.1.freq2="440"
set .tones.def.1.freq3="0"
set .tones.def.1.freq4="0"
set .tones.def.1.name="dialtone"
set .tones.def.1.off_time="0"
set .tones.def.1.on_time="0"
set .tones.def.1.repeat="1"
cp .tones.def.2
set .tones.def.2.amp1="6000"
set .tones.def.2.amp2="6000"
set .tones.def.2.amp3="0"
set .tones.def.2.amp4="0"
set .tones.def.2.freq1="350"
```

```

set .tones.def.2.freq2="440"
set .tones.def.2.freq3="0"
set .tones.def.2.freq4="0"
set .tones.def.2.name="stutter_dialtone"
set .tones.def.2.off_time="100"
set .tones.def.2.on_time="100"
set .tones.def.2.repeat="1"
cp .tones.def.3
set .tones.def.3.amp1="5000"
set .tones.def.3.amp2="5000"
set .tones.def.3.amp3="0"
set .tones.def.3.amp4="0"
set .tones.def.3.freq1="480"
set .tones.def.3.freq2="620"
set .tones.def.3.freq3="0"
set .tones.def.3.freq4="0"
set .tones.def.3.name="busy"
set .tones.def.3.off_time="500"
set .tones.def.3.on_time="500"
set .tones.def.3.repeat="1"
cp .tones.def.4
set .tones.def.4.amp1="5000"
set .tones.def.4.amp2="5000"
set .tones.def.4.amp3="0"
set .tones.def.4.amp4="0"
set .tones.def.4.freq1="480"
set .tones.def.4.freq2="620"
set .tones.def.4.freq3="0"
set .tones.def.4.freq4="0"
set .tones.def.4.name="fastbusy"
set .tones.def.4.off_time="300"
set .tones.def.4.on_time="300"
set .tones.def.4.repeat="1"
cp .tones.def.5
set .tones.def.5.amp1="5000"
set .tones.def.5.amp2="5000"
set .tones.def.5.amp3="0"
set .tones.def.5.amp4="0"
set .tones.def.5.freq1="480"
set .tones.def.5.freq2="440"
set .tones.def.5.freq3="0"
set .tones.def.5.freq4="0"
set .tones.def.5.name="ringing"

```

```
set .tones.def.5.off_time="4000"
set .tones.def.5.on_time="2000"
set .tones.def.5.repeat="1"
cp .tones.def.6
set .tones.def.6.amp1="32000"
set .tones.def.6.amp2="32000"
set .tones.def.6.amp3="32000"
set .tones.def.6.amp4="32000"
set .tones.def.6.freq1="1400"
set .tones.def.6.freq2="2060"
set .tones.def.6.freq3="2450"
set .tones.def.6.freq4="2600"
set .tones.def.6.name="offhook_warning"
set .tones.def.6.off_time="100"
set .tones.def.6.on_time="100"
set .tones.def.6.repeat="1"
cp .tones.def.7
set .tones.def.7.amp1="5000"
set .tones.def.7.amp2="0"
set .tones.def.7.amp3="0"
set .tones.def.7.amp4="0"
set .tones.def.7.freq1="440"
set .tones.def.7.freq2="0"
set .tones.def.7.freq3="0"
set .tones.def.7.freq4="0"
set .tones.def.7.name="callwait"
set .tones.def.7.off_time="50"
set .tones.def.7.on_time="300"
set .tones.def.7.repeat="0"
set .tones.net.disc="0"
set .tones.net.fail="0"
set .tones.net.ring="1"
purge .tones.seq
cp .tones.seq.1
set .tones.seq.1.name="dial_seq"
set .tones.seq.1.repeat="0"
  purge .tones.seq.1.tone
  cp .tones.seq.1.tone.1
    set .tones.seq.1.tone.1.duration="600000"
    set .tones.seq.1.tone.1.play_tone="1"
  cp .tones.seq.1.tone.2
    set .tones.seq.1.tone.2.duration="0"
    set .tones.seq.1.tone.2.play_tone="6"
```

```
cp .tones.seq.2
  set .tones.seq.2.name="stutter_dial_seq"
  set .tones.seq.2.repeat="0"
  purge .tones.seq.2.tone
  cp .tones.seq.2.tone.1
    set .tones.seq.2.tone.1.duration="2000"
    set .tones.seq.2.tone.1.play_tone="2"
  cp .tones.seq.2.tone.2
    set .tones.seq.2.tone.2.duration="598000"
    set .tones.seq.2.tone.2.play_tone="1"
  cp .tones.seq.2.tone.3
    set .tones.seq.2.tone.3.duration="0"
    set .tones.seq.2.tone.3.play_tone="6"
cp .tones.seq.3
  set .tones.seq.3.name="busy_seq"
  set .tones.seq.3.repeat="0"
  purge .tones.seq.3.tone
  cp .tones.seq.3.tone.1
    set .tones.seq.3.tone.1.duration="0"
    set .tones.seq.3.tone.1.play_tone="3"
cp .tones.seq.4
  set .tones.seq.4.name="fastbusy_seq"
  set .tones.seq.4.repeat="0"
  purge .tones.seq.4.tone
  cp .tones.seq.4.tone.1
    set .tones.seq.4.tone.1.duration="0"
    set .tones.seq.4.tone.1.play_tone="4"
cp .tones.seq.5
  set .tones.seq.5.name="ringing_seq"
  set .tones.seq.5.repeat="0"
  purge .tones.seq.5.tone
  cp .tones.seq.5.tone.1
    set .tones.seq.5.tone.1.duration="0"
    set .tones.seq.5.tone.1.play_tone="5"
cp .tones.seq.6
  set .tones.seq.6.name="callwait1_seq"
  set .tones.seq.6.repeat="0"
  purge .tones.seq.6.tone
  cp .tones.seq.6.tone.1
    set .tones.seq.6.tone.1.duration="350"
    set .tones.seq.6.tone.1.play_tone="7"
cp .tones.seq.7
  set .tones.seq.7.name="callwait2_seq"
```

```
set .tones.seq.7.repeat="0"
  purge .tones.seq.7.tone
  cp .tones.seq.7.tone.1
    set .tones.seq.7.tone.1.duration="150"
    set .tones.seq.7.tone.1.play_tone="7"
  cp .tones.seq.7.tone.2
    set .tones.seq.7.tone.2.duration="150"
    set .tones.seq.7.tone.2.play_tone="132"
  cp .tones.seq.7.tone.3
    set .tones.seq.7.tone.3.duration="150"
    set .tones.seq.7.tone.3.play_tone="7"
  cp .tones.seq.7.tone.4
    set .tones.seq.7.tone.4.duration="150"
    set .tones.seq.7.tone.4.play_tone="132"
  cp .tones.seq.7.tone.5
    set .tones.seq.7.tone.5.duration="300"
    set .tones.seq.7.tone.5.play_tone="7"
set .users.admin.billing="0"
set .users.admin.logging="3"
set .users.admin.prompt="%u%p>"
set .users.admin.remote_access="1"
set .users.admin.timeout="240"
set .users.billing.billing="1"
set .users.billing.logging="0"
set .users.billing.prompt="%u%p>"
set .users.billing.remote_access="1"
set .users.billing.timeout="0"
set .users.user.billing="0"
set .users.user.logging="3"
set .users.user.prompt="%u%p>"
set .users.user.remote_access="1"
set .users.user.timeout="0"
cp .
;
; PUT end
;
```

Appendix B: BroadWorks Validation Package Test Items

The following table describes the items tested in each *BroadWorks Validation Package*.

BroadWorks Validation Package	Items Supported
Basic Call	<ul style="list-style-type: none"> Basic Call Call Failure Codes Session Audit Dial Plan Inband DTMF RFC 2833/Negotiation Codec Renegotiation
BroadWorks Enhanced Services	<ul style="list-style-type: none"> Basic CommPilot Functions Voice Messaging Audio MWI Voice Messaging Visual MWI Priority Alerting Priority Call Waiting Alternate Numbers Ring Splash Advanced Call Control - CommPilot Hold (SIP only) Advanced Call Control - CommPilot Talk (SIP only) Advanced Call Control - CommPilot Dial/AutoAnswer (SIP only) Blocked Calling Line ID Remote Restart Call Park Retrieve – Answer with Hold
DUT Enhanced Services	<ul style="list-style-type: none"> Call Waiting Call Hold Call Hold (RFC 3264) Blind Transfer Attended Transfer Call Conference Authenticated Registration Authenticated Origination BroadWorks Shortened Registration Rejected Registration BroadWorks Authentication Do Not Disturb Call Forwarding FAX Passthrough FAX T38

BroadWorks Validation Package	Items Supported
Redundancy	DNS Registration Failover Call Setup Failover Mid-Call Failover
Session Border Controller Interface	Registration Call Origination Call Termination
Enhanced Shared Call Appearance	Line Seize Line Lamp Management Line Hold/Retrieve

7 References

- [1] *VegaStream Vega Primer version R7.1r* – available from the www.VegaAssist.com web site.
- [2] *BroadWorks Redundancy Guide*, BW-RedundancyGuide-R110.pdf, BroadSoft Release 11.0/11.1. Document is available on the BroadSoft Extranet, Version 2.
- [3] *BroadWorks Enhanced IP Phone Configuration Guide*, BW-EnhancedIPPhoneConfigGuide-R110.pdf, BroadSoft Release 11.0/11.1. Document is available on the BroadSoft Extranet, Version 1.
- [4] *VegaStream NAT Configuration* – available from the www.VegaAssist.com web site.
- [5] *Configuring Vega gateways for use with an outbound proxy* – available from the www.VegaAssist.com web site.