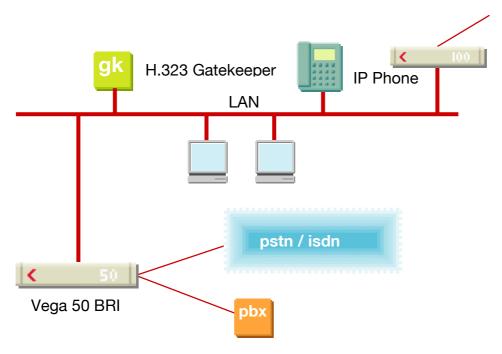
Initial configuration Vega 50 BRI (H.323) Gatekeeper mode - R4



This document describes how to configure the Vega 50 BRI H.323 unit using the web browser interface. The configuration described will allow the Vega to be rapidly installed and tested.

The instructions below will configure the Vega 50 BRI to be a transparent gateway for the gatekeeper.

- Calls made from the PBX or PSTN to the Vega will be forwarded using the gatekeeper. The telephone number passed to the Vega will be forwarded unchanged to the gatekeeper.
- Calls made from the gatekeeper to the Vega will be forwarded to the PSTN or to the PBX based on the leading two digits of the telephone number passed. A leading 01 or 03 will cause the call to be routed to the PSTN, and a leading 02 or 04 will cause the call to be routed to the PBX. The digits following the first two digits (01 / 02 / 03 / 04) will be passed as the dialed digits.



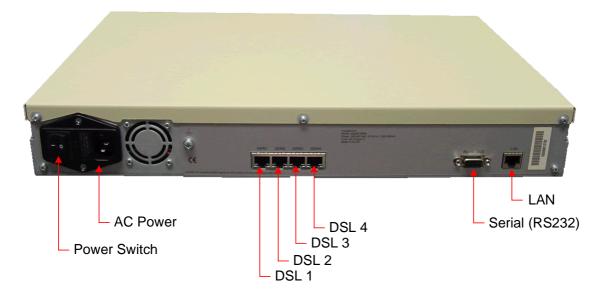
The configuration process is broken down into 11 stages as follows:

- 1 Connect your Vega to LAN, Telephone and Power
- 2 Configure the basic LAN parameters
- 3 Configure password and login timeout
- 4 Check and configure LAN settings and Host name
- 5 Select Gatekeeper mode
- 6 Configure the Dial Plan
- 7 Configure audio parameters
- 8 Configure ISDN DSLs
- 9 Configure pointer to CD ROM documentation
- 10 Save Changes
- 11 Archive Vega Configuration

Please also see:

- 12 Technical Support
- 13 Advanced configuration

1. Connect your Vega to LAN, Telephone and Power



Before installing your Vega, ensure that you read the VegaStream VoIP Gateways Safety and Compliance Information document.

LAN:

Using the yellow booted cable connect the LAN port on the Vega to a standard or fast Ethernet hub or switch (10 baseT or 100 baseTx). The connector nearest the ferrite core should be plugged into the Vega.

Telephony: Connection to a PBX		If you are connecting the Vega 50 BRI to a PBX, the Vega acts as the NeTwork equipment and a red-booted cable must be used.
		For each ISDN interface that is to be connected to the PBX, insert one end of a red booted cable into one of the Vega ISDN (DSL) sockets and the other end to the PBX.
Connection to the PSTN	-	If you are connecting the Vega 50 BRI directly to the public telephone network it acts as the Terminal Equipment and the bluebooted cable must be used.
		For each ISDN interface that is to be connected to the PSTN, insert one end of a blue booted cable to one of the Vega ISDN sockets and the other end to the PSTN terminating box.

Power:

Insert the power cable into the AC power inlet on the Vega and switch on. The power LED on the front panel will illuminate.

The LAN LEDs will also illuminate indicating 10 (baseT) or 100 (baseTx) connection, and the FDX LED will illuminate if Full Duplex mode has been negotiated.

2. Configure the basic LAN parameters

If a DHCP server is available, by default, the Vega will automatically pick up an IP address. If you know the IP address served to the Vega, skip this section and start at section <u>3</u>.

If DHCP is <u>not</u> to be used to provide the Vega with an IP address, or you need to check the IP address provided to the Vega, connect the serial interface of the Vega to a PC serial interface using a 9 way male to female straight through cable.

Configure a terminal emulator program (such as Microsoft's HyperTerminal) for:

- **Speed** = 115200 baud
- Data bits = 8
- Parity = none
- Stop bits = 1
- Flow Control = none

Press <Enter> to get the Username: prompt

At the prompts enter the default user name and password

Username: admin Password: admin

To display the current IP address, type:

> show lan.ip

If this is not the IP address required, it can be overridden, together with other LAN parameters by typing:

- > set lan.use dhcp=0
- set lan.ip=aaa.bbb.ccc.ddd
- > set lan.subnet=eee.fff.ggg.hhh
- > set lan.gateway=iii.jjj.kkk.lll
- ➤ save
- ➢ reboot system

3. Configure password and login timeout

Now configuration will be carried out via a web browser.

> Enter this value in the "Address" field of your web browser.

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You will then be presented with the login page:

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VegaStream	IP Address 192.168.1.110	
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	Enter Username and Password	
	Username	
	Password	
	Login	
 (Visit the VegaStream websil	ite	Internet //

Enter the default Username and Password

- >Username: admin
- >Password: admin >Select Login

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	Host Name Vega50ISDN	
	IP Address 192.168.1.110	
VegaStream	User Name admin	
	7	. Contraction
Management 🚽	System Management	<u>.</u>
Logging	, 0	
Maintenance	Tip: Place the cursor of the mouse on name or input fields to get concise help.	
LAN	Quick Configuration Wizard	
ISDN		
<u>H.323</u>	Quick step by step essential configuration	
<u>Dial Plan</u>		
<u>Media Channels</u>	System Time	
<u>Tones</u>	Set Time (hh:mm:ss) 00 : 19 : 32 Set Time	
Users	Set Date (dd/mm/yyyy) 01 / 01 / 1999 Set Date	
Advanced		
	Synchronise Time and Date With PC Sync Time	
Save	C With NTP server	
Log off		
	Call Reports	
Help	Report call progress summary Show Calls	
Reboot System	Report on all call progress statistics <u>Show Trace</u>	
	System Logs	
	Show the Event Log Show Event Log	
	Show the Billing Log Show Billing Log	
	Call Control	
Done		_ Internet

> On the left hand side menu select Users

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Media Channels					
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Advanced	Submit				
		Administrator	Passwo	rd	
Save		New Password			\triangleright
Log off		Re-enter Passwi	ord		5
		Submit			
Help		Submit			
Reboot System	Billing User				
	Logging	0			
	Billing	1			
	Prompt	%u%p>			
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e					🔹 🚺 🔮 Internet

Recommended: Change the password

- > enter New Password and Re-enter Password then
- select Submit and then click "here" to return

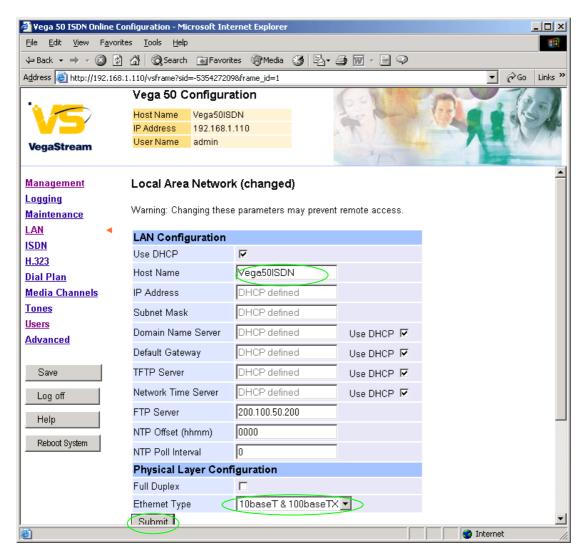
Optional: Change the timeout¹ – default is 240 seconds; can extend to 7200 seconds (2hrs)

> select Submit and then click "here" to return

¹ If the web interface is not used for this length of time the Vega will automatically log off the session. This change is only activated by logging out and back into the browser session.

4. Check and configure LAN settings and Host name

>On the left hand side menu select LAN



Recommended: In the **Physical Layer Configuration** section statically select the Ethernet Type as either 100baseTx or 10 baseT (not 10baseT & 100baseTx) – whichever is appropriate

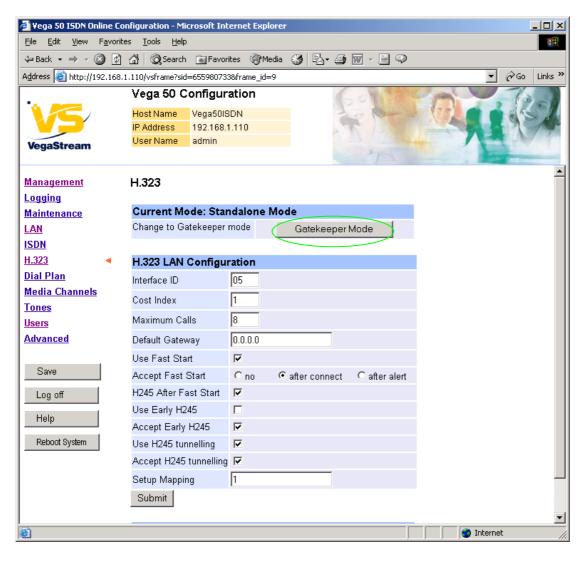
select Submit and then click "here" to return

Optional: If there are any LAN values that need to be set up manually set them up now, then

>Select Submit and then click "here" to return

5. Select Gatekeeper mode

>On the left hand side menu select H.323



Select Gatekeeper Mode

Microsoft Internet Explorer

Change to Gatekeeper Mode?

OK Cancel

Select OK

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	IP Address 192.168.1.110	10.49
VegaStream	User Name admin	
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Management	H.323	
<u>Logging</u>	Π.J2J	
<u>Naintenance</u>	Current Mode: Gatekeeper	
LAN	Change to Standalone Mode Standalone Mode	
ISDN		
<u>H.323</u>	H.323 LAN Configuration	
Dial Plan	Interface ID 05	
<u>Media Channels</u>		
<u>Tones</u>	Cost Index 1	
<u>Users</u>	Maximum Calls 8	
<u>Advanced</u>	Default Gateway 0.0.0.0	
	Use Fast Start	
Save	Accept Fast Start / Cno\	
Log off	H245 After Fast Start	
209 01	Use Early H245	
Help	Accept Early H245	
Reboot System	Use H245 tunnelling	
	Accept H245 tunnelling	
Apply Changes		
	estep mapping	
	Submit	
🞒 Done		Internet

Consider: disable all advanced H.323 features by un-ticking entries or selecting no. If using Vega to Vega, or Vega to another H.323 device which supports all the H.323 advancements leave items as default.

If changes are made, select
 Scroll to the bottom of the page

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<u>Dial Plan</u>	Submit	
Media Channels		
Tones	H.323 Gatekeeper	
<u>Users</u>	Auto Discover	
Advanced	Default Gatekeeper 0.0.0.0	
Save	Cumulative	
	Submit	
Log off		
Help	H.323 Gatekeeper Terminal Alias	
Data at Outan		lame Chg?
Reboot System		IULL Modify
Apply Changes	Delete Add	<u> </u>
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	Advanced H323	
Done		
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Either configure the H.323 Gatekeeper "Default Gatekeeper" with the IP address of the Gatekeeper, or tick Auto Discover.

Select Submit and then click "here" to return

Configure the gatekeeper Terminal alias – this needs to match the gatekeeper's expectations.

e.g. set it to an H.323 type alias "Vega_50_BRI".

In the H.323 Gatekeeper Terminal Alias section

> select Modify

H.323 > Terminal Alias 1

Modify Terminal Alias	i
Alias ID	1
Туре	H323 💌
Name	
Submit	

Set Name = Vega_50_BRI

(hint: use _ instead of space as spaces are not allowed)

>select Submit and then click "here" to return

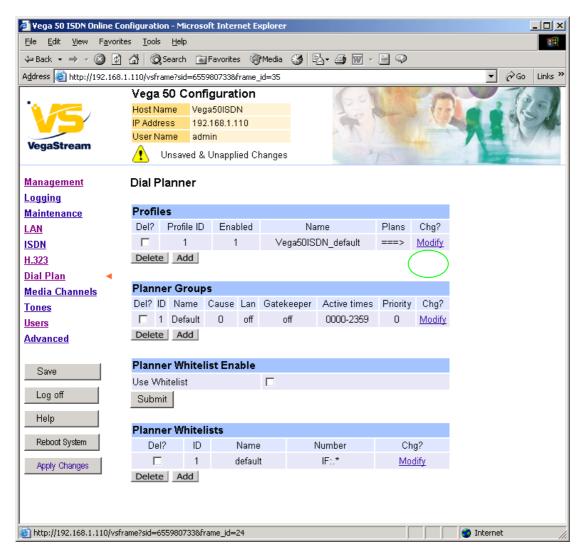
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If more than one alias is required then select Add and configure as required.

6. Configure the Dial Plan

>On the left hand side menu select Dial Plan



Firstly, turn off the default profile:

In the Profiles section, Profile ID 1

Select Modify

Dial Planner > Profile 1

Modify Profile	
Profile ID	1
Enabled	
Name	Vega50ISDN_default
Submit	

- disable (un-tick) Enabled, then
- select Submit and then click "here" to return

Now create a new profile and in it create a dial plan entry to handle calls being sent from ISDN to the LAN:

Dial Planner

Profiles							
Del?	Profile ID	Enabled	Name	Plans	Chg?		
	1	0	Vega50ISDN_default	===>	Modify		
Delete	e Add						

In the Profiles section

> Select Add

Dial Planner

Profil	Profiles							
Del?	Profile ID	Enabled	Name	Plans	Chg?			
	1	0	Vega50ISDN_default	===>	<u>Modify</u>			
	2	1	new_profile	===>	Modify			
Delete	e Add							

In the **Profiles** section, on Profile 2 (the new profile):

➢ Select Modify

Dial Planner > Profile 2

Modify Profile	
Profile ID	2
Enabled	
Name	new_profile
Submit	

Set Name = ISDN_TO_LAN
 select Submit and then click "here" to return

Dial Planner

Profil	Profiles								
Del?	Profile ID	Enabled	Name	Plans	Chg?				
	1	0	Vega50ISDN_default	===>	<u>Modify</u>				
	2	1	ISDN_To_LAN	===> (Modify				
Delet	e Add				\smile				

In the **Profiles** section, on Profile 2 (the ISDN_To_LAN profile):

> Select Modify

Dial Planner > Profile 2

Modify Profile	
Profile ID	2
Enabled	
Name	ISDN_To_LAN
Submit	

Plans in this Profile								
Del?	Plan ID	Name	Srce	Dest	Cost	Group	Chg?	
	1	new_plan	TEL:<><.*>	IF:<1>,TEL:<2>	0	0 (Modify	
Delete Add								

In the Plans in this Profile section:

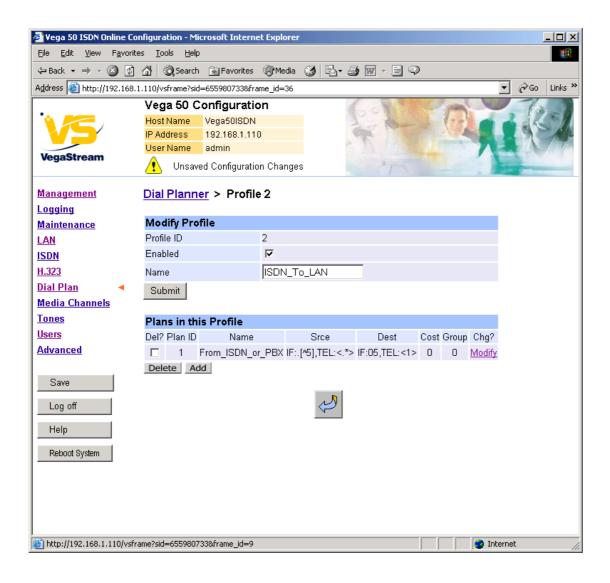
➢ Select Modify

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Ho:	st Name Vega50ISDN
	Address 192.168.1.110
VegaStream	er Name admin
	Unsaved & Unapplied Changes
Management Dia	al Planner > Profile 2 > Plan 1
Logging	
Maintenance Mo	odify Plan
LAN Pla	an ID 1
ISDN Pro	ofile ID 2
H.323 Nai	me new_plan
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Media Channels De	stination (F:<1>,TEL:<2>
Tones	
Users Co:	
Advanced Gro	oup 0 - no group 💌
(A	pply Generate Prefix Match
Save	
Log off Re	egular Expressions for Source
	Any character
Help [.] Any character within the parentheses
[X-	-y] Any character in the range x-y
Reboot System] Any character except those within the parentheses
Apply Changes	The character before repeated zero or more times
+	The character/expression before repeated one or more times
?	The character/expression before repeated zero or more times
<u>\</u>	The character following is taken literally
	Capture the sequence in parentheses and store as < n > where n is
🕘 http://192.168.1.110/vsframe?s	sid=6559807338frame_id=7 👘 👘 👘 👔 Internet

- Set Name = From_ISDN_or_PBX
- Set Source = IF:. [^5], TEL:<.*>
- Set Destination = IF:05,TEL:<1>

(This takes a call from any of the four ISDN interfaces and stores the telephone number presented in store <1>) (This routes the call to IF:05 (the LAN) and passes the received telephone number on as the destination telephone number)

> select Apply and then click "here" to return



>On the left hand side menu select Dial Plan

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Dial Plan	Delete	e Add						
<u>Media Channels</u> Tones	Plann	er Group						
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Now create a new profile and in it create a dial plan entry to handle calls being received inbound from the LAN:

In a similar manner to adding profile 2 add another profile, profile 3,

Set Name = LAN_to_ISDN_or_PBX

Modify the first plan for Profile 3:

>5	Set Name = From_LAN	
	Set Source = IF:05, TEL:<><.*>	(For calls from IF:05 (LAN), take the first two digits presented and store them in store <1>; take any further digits and store them in store <2>)
	Set Destination = IF: <1>, TEL: <2>	(The first two digits presented define the interface – 01, 02, 03, 04 – and the remainder of the digits are passed on as the telephone number)

> select Apply and then click "here" to return

Note: The gatekeeper must choose the appropriate interface on the Vega to dial out from; when the gatekeeper presents a call to the Vega, the telephone number field must contain *iittt...t*, where *ii* is the interface number 01 to 04, and *ttt...t* is the telephone number to dial.

For more details on the operation of the dial planner, including the various tokens that may be used, see the section "The Dial Planner" in the Vega Primer.

7. Configure audio parameters

>On the left hand side menu select Media Channels

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Logging							
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<u>ISDN</u>	<u>g729</u>						
<u>H.323</u>	<u>g711Alaw</u>						
<u>Dial Plan</u>	<u>g711Ulaw</u>	<u>/64k</u>					
Media Channels 🖪	<u>g7231</u>						
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Users	H.245 C	anahil	ition				
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		1124	1		q7231	Modify	
Save					, ,		
			2	-	1Alaw64k	<u>Modify</u>	
Log off			3	Ŭ,	1Ulaw64k	<u>Modify</u>	
Help			4	1	38tcp	<u>Modify</u>	
			5	t	38udp	<u>Modify</u>	
Reboot System	Delete	Add					
	H.245 C	apabil	ity Descript	ors			
	Del?	ID	Descripti		Caps	Chg?	
		1	voice		1,2,3	Modify	
		2	t38Ter	1	4	Modify	•
🞒 http://192.168.1.110/vsf	rame?sid=655	9807338					📄 📄 🔮 Internet 👘

Add more codecs so that by default the Vega will handle calls with any of the codecs it supports.

In H.245 Capabilities

> Select Add

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	IP Addres:	s 192	2.168.1.110			an .	1.40			CAL
No. of the second secon	User Nam	ie adr	nin			AU				1 alter
VegaStream	🥂 Un	saved &	Unapplied C	hanges			T	1		_
<u>Management</u>	Media C	hanne	ls							-
<u>Logging</u>							_			
<u>Maintenance</u>	Codec (Configu	Iration							
LAN	g729Anne	<u>exA</u>								
<u>ISDN</u>	<u>g729</u>									
<u>H.323</u>	<u>g711Alaw</u>									
Dial Plan	<u>g711Ulaw</u>	<u>64k</u>								
Media Channels 🖪	<u>g7231</u>									
Tones	<u>T38</u>									
<u>Users</u>	H.245 C	anahili	liae							
Advanced	Del?	-	iCap ID		Name	ſ	hq?			
		11240	1		g7231		odify			
Save	-				~					
			2	, v	1Alaw64k		<u>odify</u>			
Log off			3	g71	1Ulaw64k	M	odify			
Help			4		t38tcp	<u>M</u>	<u>odify</u>			
Tielh			5	1	t38udp	<u>M</u>	odify			
Reboot System			6		g7231	M	<u>odify</u>			
Apply Changes	Delete	Add								
	H.245 C	apabili	ty Descript	ors						
	Del?	ID	Descripti		Caps	Ch	ig?			
		1	voice		123	Mo	~			-
🕘 Done									Internet	

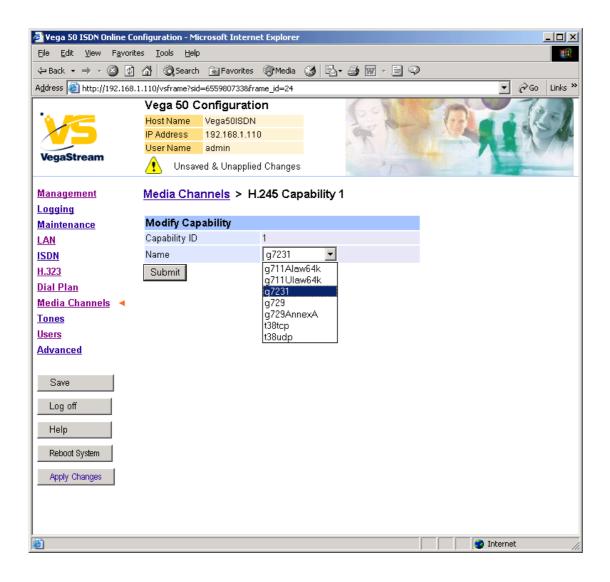
In H.245 Capabilities

> Select Add

H.245 C	H.245 Capabilities							
Del?	H245 Cap ID	Name	Chg?					
	1	g7231	Modify					
	2	g711Alaw64k	<u>Modify</u>					
	3	g711Ulaw64k	<u>Modify</u>					
	4	t38tcp	<u>Modify</u>					
	5	t38udp	<u>Modify</u>					
	6	g7231	<u>Modify</u>					
	7	g7231	<u>Modify</u>					
Delete	Add							

Delete Add

Select Modify on H245 Cap ID 1



Select required codec type – in this case g7231

select Submit and then click "here" to return

Modify all H245 Cap ID entries until the list looks as follows:

H.245 Capabilities						
Del?	H245 Cap ID	Name	Chg?			
	1	g7231	<u>Modify</u>			
	2	g729AnnexA	<u>Modify</u>			
	3	g729	<u>Modify</u>			
	4	g711Alaw64k	<u>Modify</u>			
	5	g711Ulaw64k	<u>Modify</u>			
	6	t38tcp	<u>Modify</u>			
	7	t38udp	<u>Modify</u>			
Delete	Add					

Now update the Capability Description list that tells the Vega which of the codecs it can use.

H.245 C:	H.245 Capability Descriptors							
Del?	ID	Description	Caps	Chg?				
	1	voice	1,2,3	Modify				
	2	t38Tcp	4	Modify				
	3	t38Udp	5	<u>Modify</u>				
Delete Add								

≻Select Modify

Media Channels > H.245 Capability Descriptor 1

Modify Capability Descriptor						
Descriptor ID	1					
Name	voice					
Caps	1.2.3					
Submit						

>Extend the voice Capability Descriptor list to support 1,2,3,4,5

> select Submit and then click "here" to return

H.245 C	H.245 Capability Descriptors								
Del?	ID	Description	Caps	Chg?					
	1	voice	1,2,3,4,5	Modify					
	2	t38Tcp	4	Modify					
	3	t38Udp	5	Modify					
Delete									

Delete Add

Correct entries for the T38tcp codec and the T38udp codec; TCP = entry 6 and UDP = entry 7.

After making the changes the H.245 capability descriptors should look like this:

H.245 Capability Descriptors								
Del?	ID	Description	Caps	Chg?				
	1	voice	1,2,3,4,5	<u>Modify</u>				
	2	t38Tcp	6	<u>Modify</u>				
	3	t38Udp	7	<u>Modify</u>				
Delete Add								

8. Configure ISDN DSLs

>On the left hand side menu select ISDN

🖉 ¥ega 50 ISDN Online Con	figura	ation - Mie	ros	oft Inte	rnet Explorer										_ 🗆 🗵
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites	s <u>I</u> o	ols <u>H</u> elp													11
🖙 Back 🔹 🤿 🗸 🔯	3 (📿 Search	*	Favorit	es 🛞 Media	3 [₿• (۰ 🗹 ک		Q					
Address 🕘 http://192.168.1.	.110/v	sframe?sid:	=65	59807338	&frame_id=7								-	<i>∂</i> Go	Links »
	Veg	ja 50 C	on	figura	tion			20	1		O g	1		1	
		Name		ga50ISC				10	(the		1	1		-sk	
		Idress		2.168.1.	110		2	7							Age
VegaStream	User	r Name		min								1		6-9	110
	4	Unsave	ed 8	L Unapp	lied Changes				7				12	-	-
<u>Management</u>	ISDI	N													
<u>Logging</u>	_														
<u>Maintenance</u>	ISD	N Confi	gu	ration											
LAN	DTM	IF Termin	atio	n Char	*										
ISDN 🔹	DTM	IF Dial Tir	nec	ut	2										
<u>H.323</u>	Netw	vork Type			ETSI	-									
<u>Dial Plan</u>					S0 -	-									
<u>Media Channels</u>		vork Topo		ý		_									
<u>Tones</u>	Fram	ning Meth	lod			-									
<u>Users</u>	Line	Encoding	3		4B3T 💌]									
Advanced	Bus	Master			1										
Save	Sut	bmit													
Log off	DSL	. Config	jur	ation											
Help	DSL ID	Enabled	NT	Clock Master	Layer 1	Test Loop	Setup	Cause	Line Type	Tei	Groups	Chg?			
Reboot System	1	1	0	0	g711Alaw64k		0	0			===>				
- Noboli Oyalom	2	1	1	1	g711Alaw64k		0	0			===>				
Apply Changes	3	1	0	0	g711Alaw64k		0	0			===>				
	4 Del	oto Ard	1	1	g711Alaw64k	U	0	0	pmp	64	===>	Modify			
	Dele	ete Ad	d												
ど Done												0	Interne	t	

The default values for **ISDN Configuration** – as shown above are the correct values for the BRI unit and should not be changed.

Bus Master needs to be configured to point to an active TE trunk – to identify where the Vega will synchronise its internal clock from – in this configuration this should be 1 (DSL 1).

For typical configurations in **DSL Configuration** the Line type should be configured for pp (point to point) and the TEI value should be changed to 0. Use of pmp (point to multipoint) and TEI=64 are useful when connecting the Vega 50 BRI to multiple BRI telephones.

In DSL Configuration

Select Modify for DSL ID 1

🏄 Yega 50 ISDN Online Cor	nfiguration - Microsoft Internet Explorer	×
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorite	es Iools Help	
🗢 Back 🔹 🔿 💉 🙆 👩	🟠 🔯 Search 🝙 Favorites 🐲 Media 🎲 🖏 - 🎒 🐨 - 📄 📿	
Address 🙆 http://192.168.1	1.110/vsframe?sid=655980733&frame_id=7	»>
	Vega 50 Configuration	Γ
	Host Name Vega50ISDN	
	IP Address 192.168.1.110	
VegaStream	User Name admin	
	Insaved & Unapplied Changes	Ļ
Management	Digital Subscriber Line 1	
Logging		
Maintenance	Modify DSL DSL ID 1	
LAN	Enabled	
ISDN	Network Terminator	
<u>H.323</u>		
<u>Dial Plan</u> Media Channels	Clock Master	
Tones	Layer 1 g711Alaw64k 💌	
Users	Setup Mapping 0	l
Advanced	Cause Mapping 0	
Auvanceu	Line Type © pmp (C pp)	
Save	TEI (64)	l
	Submit	
Log off		
Help	Groups in this DSL	l
Reboot System	Group Interface Cost DN First Last Alloc Channel Channel Channel Channel	
Apply Changes	1 01 1 * 1 2 default <u>Modify</u> Delete Add	
		-
🙆 Done		//

≻Change line type to pp

≻Set TEI = 0

> Select Submit and then click "here" to return

	DSL Configuration										
DSL ID	Enabled	NT	Clock Master	Layer 1	Test Loop	Setup	Cause	Line Type	Tei	Groups	Chg?
1	1	0	0	g711Alaw64k	0	0	0	рр	0	===>	<u>Modify</u>
2	1	1	1	g711Alaw64k	0	0	0	pmp	64	===>	<u>Modify</u>
3	1	0	0	g711Alaw64k	0	0	0	pmp	64	===>	<u>Modify</u>
4	1	1	1	g711Alaw64k	0	0	0	pmp	64	===>	<u>Modify</u>
Dele	Delete Add										

For the configuration indicated in the initial diagram DSL1 and DSL3 are connected to the PSTN and DSL 2 and DSL 4 are connected to a PBX. So the Vega needs DSL 1 and 3 configured as TE (and a blue booted cable used), and DSL 2 and 4 configured as NT (and a red booted cable used).

These are the default settings of the Vega and so no changes are required to the Network Terminator(NT) setting. If the values for NT are changed on any of the DSLs, then typically if NT is

ticked then Clock Master should also be ticked. If NT is un-ticked (TE mode) then typically Clock Master should also be un-ticked.

➢ Repeat setting line type = pp and TEI = 0 for DSLs 2 to 4

DSL	DSL Configuration										
DSL ID	Enabled	NT	Clock Master	Layer 1	Test Loop	Setup	Cause	Line Type	Tei	Groups	Chg?
1	1	0	0	g711Alaw64k	0	0	0	рр	0	===>	<u>Modify</u>
2	1	1	1	g711Alaw64k	0	0	0	рр	0	===>	<u>Modify</u>
3	1	0	0	g711Alaw64k	0	0	0	рр	0	===>	Modify
4	1	1	1	g711Alaw64k	0	0	0	рр	0	===>	<u>Modify</u>
Dele	Delete Add										

NOTE

Do not be surprised if, even after configuration, the LCD call count remains at "--" and the Trunk LED flashes indicating no layer 2 connection. Many BRI connections do not bring up layer 2 until a call is made.

Table 1 can be used as a guide when setting up parameters for Vega 50 BRI ISDN installations.

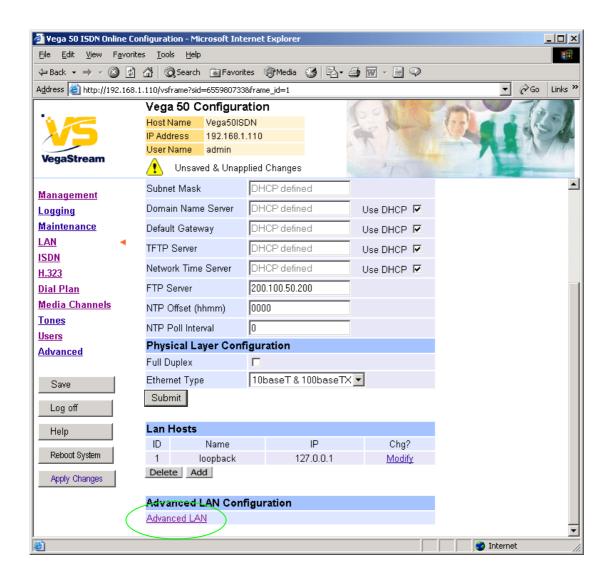
Table 1.	Network type, Line Encoding, and Topology
	network type, Ene Encouning, and ropology

Product	Physical Connection	Network Topology	Network type	DSLs	Line Encoding	Calls
Vega 50-BRI-S	S/T 144 Kbps	S0	Euro ISDN	4	4B3T	8

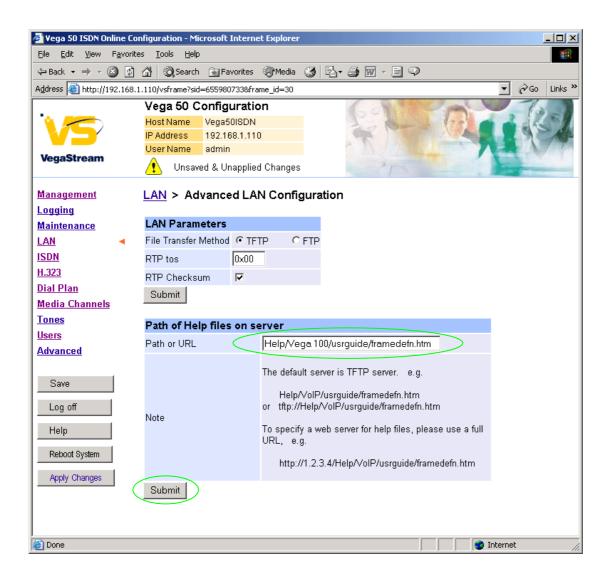
9. Configure pointer to CD ROM documentation

➢On the left hand side menu select LAN

Scroll to the bottom of the screen



Select <u>Advanced LAN</u>



To configure for operation using the CD in the local PC CD-ROM drive,

Set Path or URL = D:/Content/help/v50brih.htm

... N.B. use forward slashes "/" not back slashes "\".

(Substitute the appropriate drive letter if D: is not the CD-ROM)

select Submit and then click "here" to return

10. Save Changes

The changes to the configuration must be saved and activated. This is carried out as follows:

➢On the left hand side menu select <u>Save</u> Microsoft Internet Explorer X Save Configuration Changes? ÖK Cancel ÖK and after the configuration has been saved click "here" to return ≻Select Reboot System ≻On the left hand side menu select Microsoft Internet Explorer X Unsaved Configuration Changes Reboot Vega 50 ? ÖK Cancel ΟK Select \triangleright

The Vega will reboot and once back on-line, it will be ready to take its first call.

11. Archive Vega Configuration

Once configured it is recommended that the configuration is archived to an external server.

To do this check that the tftp address is configured to point to a tftp server (in the <u>LAN</u> page), then on the left hand side menu select <u>Advanced</u>, and scroll to the CLI Command section:

CLI Command	
	Submit

> in the text entry box type "PUT tftp:initial cfg.txt". Select

This will send all the configuration parameters to the tftp server and save them as the file "initial_cfg.txt". (Note: you may want to choose a unique name rather than "initial_cfg.txt", especially if you are configuring more than 1 unit).

The Vega configuration can be archived to an ftp server instead of a tftp server by configuring the ftp server address in the LAN page and then typing the CLI command "PUT FTP:initial_cfg.txt". (Again a unique name can be used in place of "initial_cfg.txt")

If the ftp server requires a login username and password configure the following:

- > set _advanced.lan.ftp.anonymous_login=0
- > set _advanced.lan.ftp.username=<ftp username>
- > set _advanced.lan.ftp._password-<ftp password>

12. Technical Support

Support information can be found on the VegaStream Support web site www.VegaAssist.com

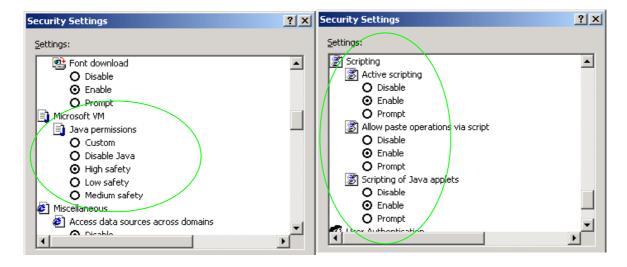
If you require help from VegaStream support personnel, please use the serial interface or telnet into the unit, log in and then type:

- > show support
- > log display on

Carry out the interaction you want explained, then copy the information provided by the Vega and e-mail it to support@VegaStream.com together with your question.

Notes:

1. If the screens do not appear as indicated, check that Java is enabled on your web browser (Tools>internet options>Security, select internet and custom level and configure Microsoft VM Java permissions and Scripting parameters as indicated below.



- 2. Where there are multiple sections each with a Submit button entries must be made to one section at a time, and those entries confirmed by the Submit button before the next section is altered. Each Submit button only confirms entries for its own section. Any changes in other sections will be discarded when the Submit is pressed.
- 3. H.323 supports two methods for transmitting call setup details. There is a standard method and then Fast Start. To allow the Vega to accept calls using the Fast Start technique ensure "Accept Fast Start" is enabled ... see section 5

For the Vega to initiate calls using Fast Start ensure that "Use Fast Start" is enabled \dots see section <u>5</u>.

13. Advanced configuration

ISDN units have further configurable parameters that may be desirable to configure in order to fully integrate into the attached ISDN infrastructure. Some are configurable through the web browser, others must be configured through the Command Line Interface.

13.1 Web browser configurable parameters

13.1.1 ISDN Channel Allocation Strategies

The Vega allows configuration of the channel allocation strategy to be used for each DSL on outgoing calls. Four options are available,

- i) *Linear_down* where the Vega will use the highest available free channel to make the outbound call ... use this mode when the attached device is configured to make outbound calls using *Linear up*.
- ii) Linear_up where the Vega will use the lowest available free channel to make the outbound call ... use this mode when the attached device is configured to make outbound calls using Linear down.
- iii) *Round_robin* in this mode the Vega remembers the last allocated channel and then tries to use the next channel up from this for the next outbound call. (After reaching the highest channel ID it restarts at the lowest channel again.) … use this mode when the attached device is configured to make outbound calls using *Round_robin* mode.
- iv) *Default* if the DSL is configured as NT then the Vega will use the *Linear_up* scheme, and if the DSL is configured as TE then the Vega will use *Linear_down*.

By default the Vega has chan_alloc set=Default

Using the web browser interface:

On the left hand side menu select <u>ISDN</u>Then select the DSL to alter

🚰 Vega 50 ISDN Online Cor	nfiguration - Microsoft Internet	Explorer provided by AT&T Broadband Internet	
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorite	es <u>T</u> ools <u>H</u> elp		(B)
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Address 🙆 http://202.180.7	/6.90/vsframe?sid=1623997697&fra	me_id=7	💌 🤗 Go 🛛 Links 🎽
	Vega 50 Configuration	n	700
	Host Name Vega50ISDN	(18)	
	IP Address 202.180.76.90 User Name admin		
VegaStream	•		
	L Unsaved & Unapplied	Changes	. All the second
Management	Digital Subscriber Line	e 1	4
Logging			
Maintenance	Modify DSL		
LAN		1	
ISDN 🔹	Enabled		
<u>H.323</u>	Network Terminator		
<u>Dial Plan</u>	Clock Master		
Media Channels	Layer 1	g711Alaw64k 💌	
Tones	Test Loop		
<u>Users</u>	Setup Mapping	0	
Advanced	Cause Mapping	0	
Caura 1		©pmp Cpp	
Save		64	
Log off		64	
Help	Submit		
	Groups in this DSL		
Reboot System	Group Interface Cost		
Apply Changes	ID ID Index	DN Channel Channel Channel Chg?	
	1 01 1	* 1 2 default (<u>Modify</u>)	
	Delete Add	\smile	
			•
🔄 http://202.180.76.90/vsfra	ame?sid=1623997697&frame_id=24		🗿 Internet 👘

In the Groups in this DSL:

➢ Select Modify

ISDN > DSL 1 > Group 1

Modify DSL Group	
Group ID	1
DSL ID	1
Interface ID	01
Cost Index	1
DN	*
First Channel	1
Last Channel	2
Alloc Channel	Default 💌
Submit	Default Linear Up Linear Down Round Robin

Select the desired channel allocation strategy from the Alloc Channel pull down.
 Select Submit and then click "here" to return

Save and reboot system to activate the change

13.2Command Line Interface configurable parameters

These items must be configured using the Command Line interface available either using the serial connection or using a telnet session.

Connect to the Vega and log in.

13.3 Layer 2 control

Many Basic Rate ISDN trunks take layer 2 down when the line is not in use, bringing layer 2 up only when a call is to be made.

By default the Vega automatically tries to reinstate layer 2 immediately it sees layer 2 going down. This results in later 2 being removed, re-instated, and removed again on a regular basis. This can be observed by seeing regular link-down and link-up messages on the event log.

To allow layer 2 to be taken down between calls and only brought up for the duration of the calls, on the command line interface type:

Set _advanced.isdn.restart_l2_after_disc=0

On the front pannel, during calls the ISDN LED will be seen to be on solidly, and between calls the LED will flash.

13.3.1 End to End Call Proceeding

For H.323 to ISDN calls, by default the Vega will send the Call Proceeding message on the H.323 interface as soon as all the dialling information has been received.

It is possible to configure the Vega only to send the Call Proceeding on the H.323 interface once it has received the call proceeding from the outgoing call made on the ISDN interface – i.e. the call proceeding is passed from end to end rather than being generated by the Vega. This mode is useful when the Vega is not the end point in the telephony network, but is an intermediate carrier.

To set the Vega to support end to end call proceeding, at the CLI prompt type:

> Set _advanced.isdn.end_to_end_call_proceeding=1

To allow the Vega to generate the call proceeding message set this configuration parameter to 0.

> Save and reboot system to activate the change

13.3.2 User progress tones

For ISDN to H.323 calls, by default if the Vega DSL is configured as TE it will connect media through before or at alerting so that progress tones are passed through from end to end (i.e. for the ISDN caller to hear ringback and other progress tones the audio must be received over the H.323 interface).

If it is required that the Vega generates these progress tones on the TE ISDN interface, then at the CLI prompt type:

- > Set _advanced.isdn.user_progress=1
- > Save and reboot system to activate the change
- Notes: 1. If the Vega DSL is configured as NT it will always generate the call progress tones. E.g. ringback and disconnect tones.
 - 2. Typically wait_for_connect and user_progress configuration parameters should either both set to 1 or both set to 0.

13.3.3 User progress tones

For H.323 to ISDN calls, by default the Vega will act upon the in-band audio indicator in the alerting message and if present will connect the media path.

If it is required that the Vega should ignore the in-band audio indicator, and so not pass on the inband tone, then at the CLI prompt type:

- Set _advanced.isdn.alert_with_progress=0
- > Save and reboot system to activate the change

If it is required that the Vega should always cut through the audio whatever the value of the inband audio indicator, then at the CLI prompt type:

- Set _advanced.isdn.alert_with_progress=2
- > Save and reboot system to activate the change

Further details on these and other parameters may be found in the Vega Primer.