

# Initial configuration

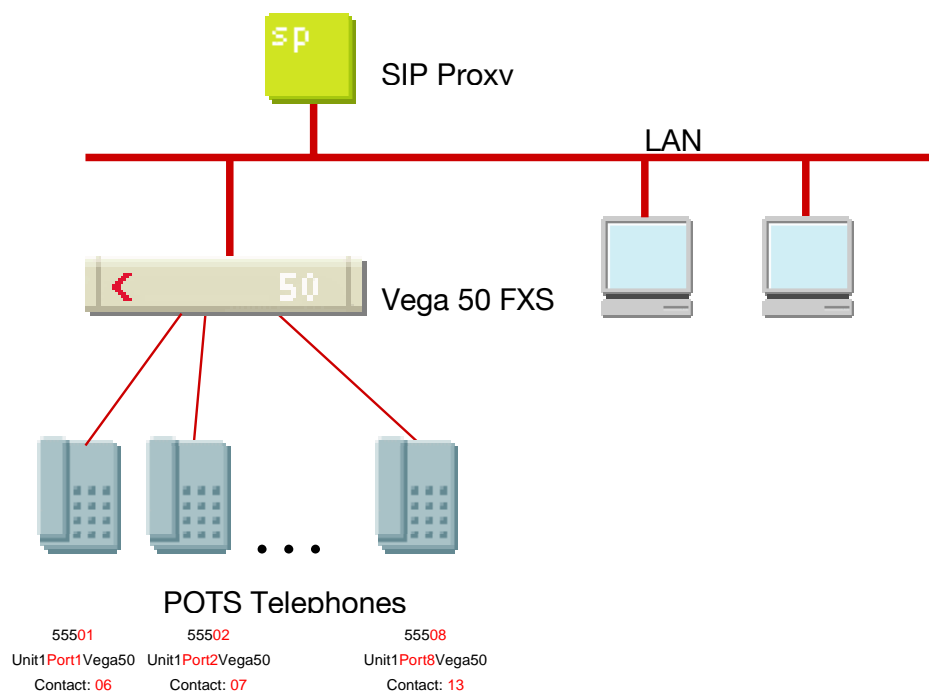
## Vega 50 FXS (SIP) – R7.0



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

The instructions below will configure the Vega 50 FXS to operate as follows:

- Calls made by any of the attached analogue phones will be routed to the SIP proxy; the Vega will pass on any dialled digits
- Calls received from the SIP proxy must have a 2-digit “dialled number”, 06 to 13, to identify which of the 8 telephones to ring. (The translation of the telephone number to the 2-digit dialled number is carried out in the SIP proxy as the Vega registers the 2-digit dialled numbers against the user access numbers (registered addresses).)



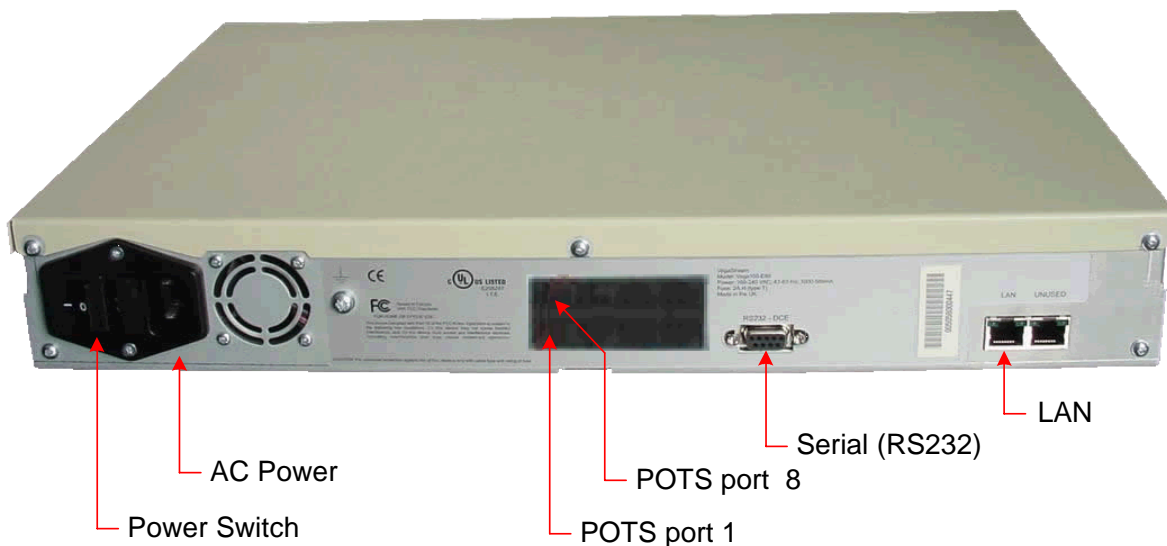
The configuration process is broken down into 11 stages as follows:

- 1 Connect your Vega to LAN, telephones and Power
- 2 Configure the basic LAN parameters
- 3 Configure password and login timeout
- 4 Check and configure LAN settings and Host name
- 5 Configure the Dial Plan
- 6 Configure SIP and audio parameters
- 7 Configure Authentication
- 8 Configure Registration
- 9 Configure POTS parameters
- 10 Save Changes
- 11 Archive Vega Configuration

Please also see:

- 12 Technical Support

# 1. Connect your Vega to LAN, telephones 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:

Connect telephones to POTS ports 1 to 8. Note the port numbers increase in an anticlockwise direction from the bottom left corner.

Port 8 IF:13	Port 7 IF:12	Port 6 IF:11	Port 5 IF:10
Port 1 IF:06	Port 2 IF:07	Port 3 IF:08	Port 4 IF:09

## 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 [3](#).

If DHCP is not 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 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

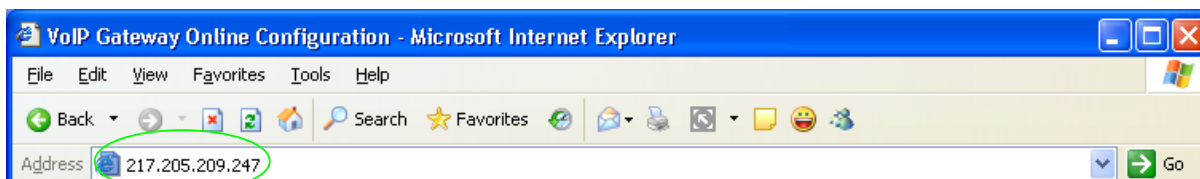
If this is not the IP address required, it can be overridden, together with other LAN parameters by typing:

- 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

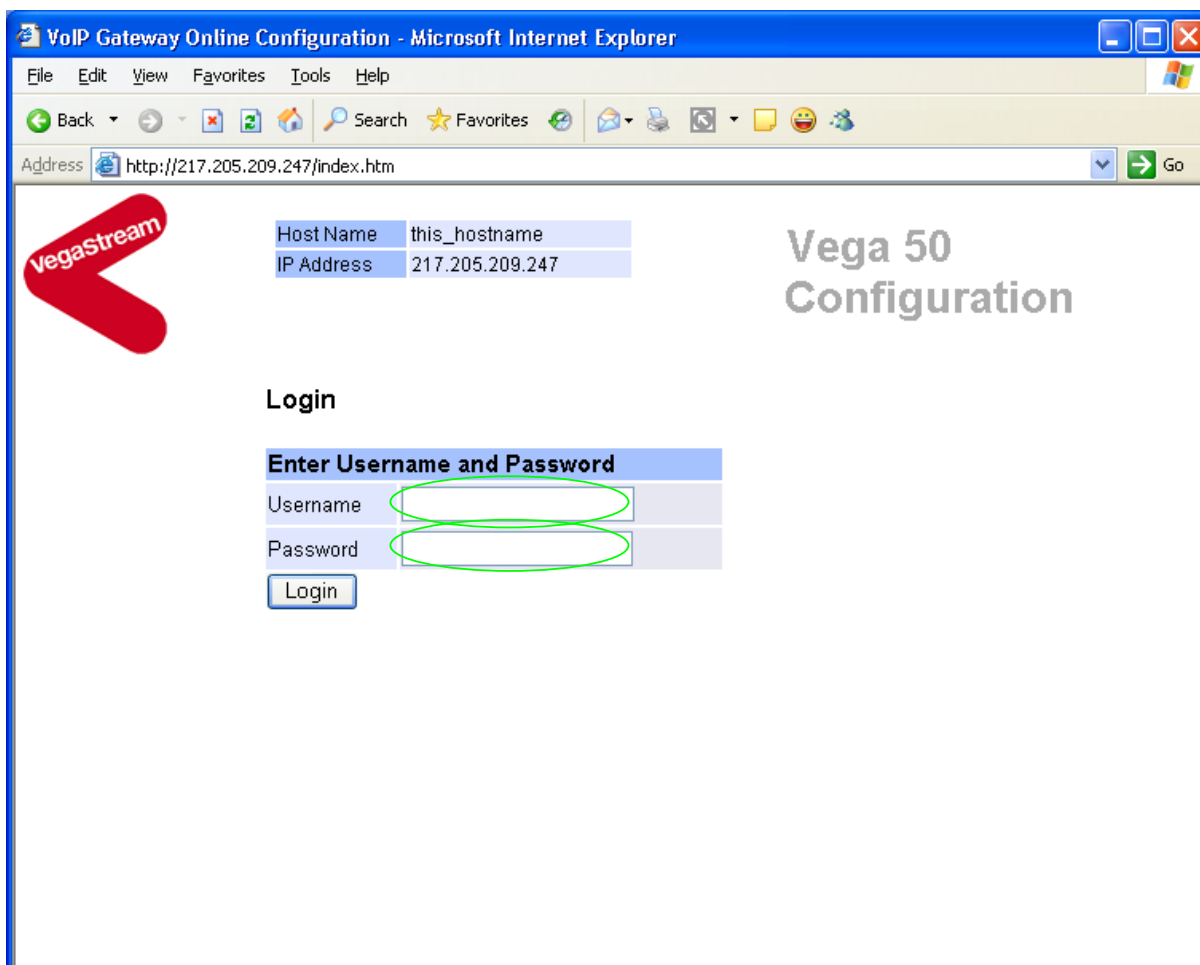
### 3. Configure password and login timeout

Now configuration will be carried out using a web browser.

➤ Enter the IP address of the Vega into the “Address” field of your web browser.



You will then be presented with the login page:



Enter the default Username and Password

- Username: admin
- Password: admin
- Select

Vega 50 FXS8/FX08 Online Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop

Address http://217.205.209.247/vsframe?sid=778275282&frame\_id=6 Go

**VegaStream**

Host Name	this_hostname
IP Address	217.205.209.247
User Name	admin

## Vega 50 Configuration

**Management** ▶ **System Management**

Logging  
Maintenance  
LAN  
POTS  
Dial Plan  
DSP  
Media  
Tones  
SIP  
**Users**  
QoS  
Supp. Services  
Advanced

Save  
Log off  
Help  
Reboot System

Tip: Place the cursor of the mouse on name or input fields to get concise help.

### Quick Configuration Wizard

Quick step by step essential configuration Start Wizard

### System Time

Set Time (hh:mm:ss)  :  :  Set Time

Set Date (dd/mm/yyyy)  /  /  Set Date

Synchronise Time and Date  With PC  With NTP server Sync Time

### Call Reports

Report call progress summary Show Calls

Report on all call progress statistics Show Trace

### System Logs

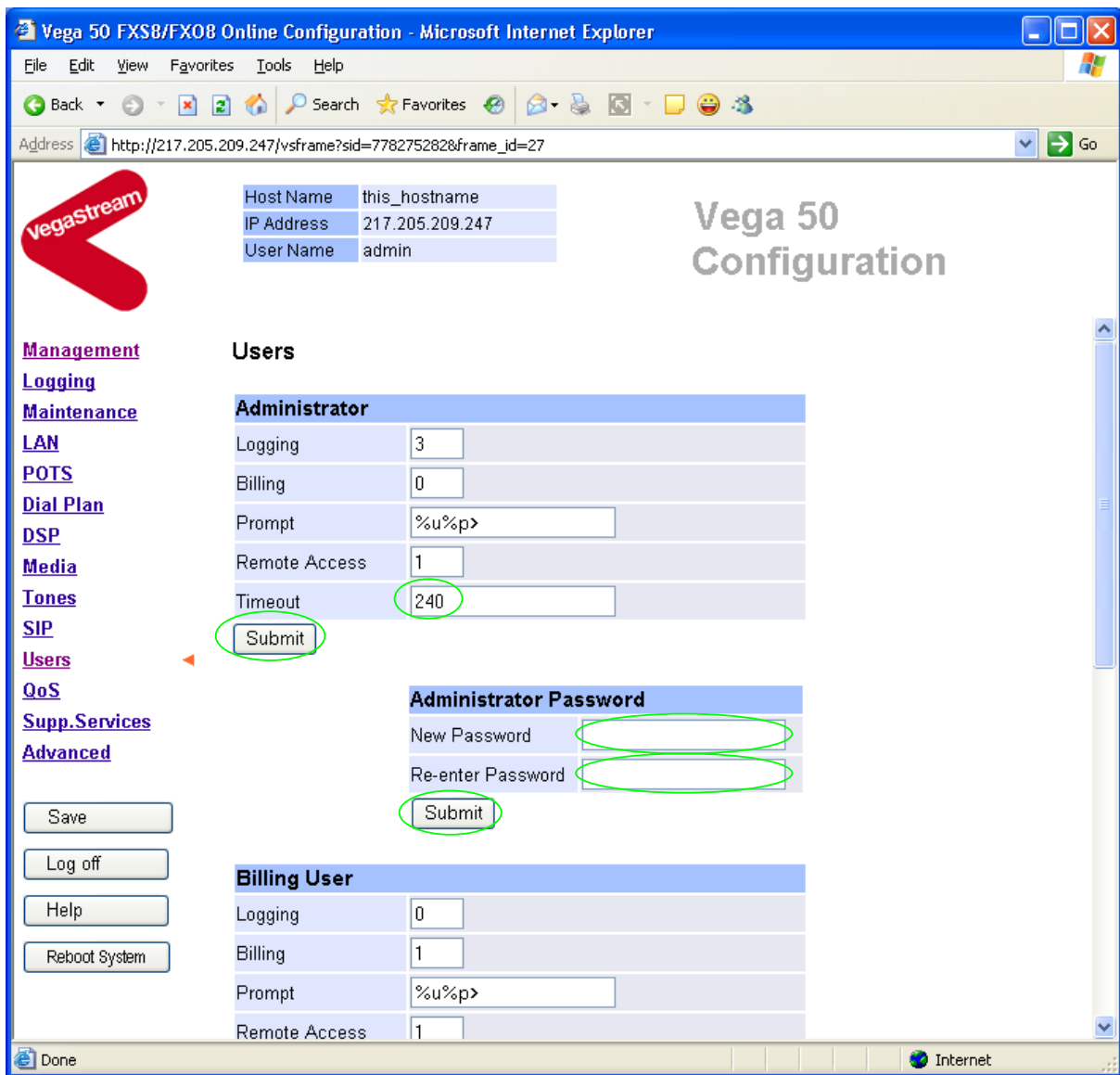
Show the Event Log Show Event Log

Show the Billing Log Show Billing Log

### Call Control

Done Internet

- On the left hand side menu select [Users](#)



**Recommended:** Change the password

- enter New Password and Re-enter Password then
- select  and then click "[here](#)" to return

**Optional:** Change the timeout<sup>1</sup> – default is 240 seconds; can extend to 7200 seconds (2hrs)

- select  and then click "[here](#)" to return

<sup>1</sup> 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 web browser session.

## 4. Check and configure LAN settings and Host name

➤ On the left hand side menu select [LAN](#)

Host Name this\_hostname  
IP Address 217.205.209.247  
User Name admin

**Vega 50 Configuration**

Unsaved Configuration Changes

**Local Area Network (changed)**

Warning: Changing these parameters may prevent remote access.

**Current Mode: Standard Ethernet Mode**

Change to VLAN (8021q) Ethernet mode

**LAN Configuration**

Use DHCP	<input type="checkbox"/>
Host Name	<input type="text" value="this_hostname"/>
IP Address	<input type="text" value="217.205.209.247"/>
Subnet Mask	<input type="text" value="255.255.255.240"/>
Default Gateway	<input type="text" value="217.205.209.241"/> Use DHCP <input checked="" type="checkbox"/>
TFTP Server	<input type="text" value="0.0.0.0"/> Use DHCP <input checked="" type="checkbox"/>
Network Time Server	<input type="text" value="0.0.0.0"/> Use DHCP <input checked="" type="checkbox"/>
FTP Server	<input type="text" value="0.0.0.0"/>
NTP Offset (hhmm)	<input type="text" value="0000"/>
NTP Poll Interval	<input type="text" value="0"/>

**Physical Layer Configuration**

Full Duplex	<input type="checkbox"/>
Ethernet Type	<input type="text" value="10baseT &amp; 100baseTX"/>

Save  
Log off  
Help  
Reboot System

**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  and then click [“here”](#) to return

**Optional:** If there are any LAN values that need to be set up manually set them up now (e.g. tftp and ftp addresses), then

➤ select  and then click [“here”](#) to return



## 5. Configure the Dial Plan

➤ On the left hand side menu select [Dial Plan](#)

Firstly, turn off the default profile:

In the **Profiles** section

➤ Select [Modify](#)

[Dial Planner](#) > **Profile 1**

Modify Profile	
Profile ID	1
Enabled	<input checked="" type="checkbox"/>
Name	default
<input type="button" value="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 outbound on the LAN:

### Dial Planner

Profiles						
Del?	Profile ID	Enabled	Name	Plans	Chg?	
<input type="checkbox"/>	1	0	default	===>	<a href="#">Modify</a>	
<b>Delete</b>		<b>Add</b>				

In the **Profiles** section

- Select **Add**

### Dial Planner

Profiles						
Del?	Profile ID	Enabled	Name	Plans	Chg?	
<input type="checkbox"/>	1	0	default	===>	<a href="#">Modify</a>	
<input type="checkbox"/>	2	1	new_profile	===>	<a href="#">Modify</a>	
<b>Delete</b>		<b>Add</b>				

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

- Select [Modify](#)

### [Dial Planner](#) > Profile 2

Modify Profile	
Profile ID	2
Enabled	<input checked="" type="checkbox"/>
Name	<input type="text" value="new_profile"/>
<b>Submit</b>	

Plans in this Profile								
Del?	Plan ID	Name	Src	Dest	Cost	Group	Chg?	
<input type="checkbox"/>	1	new_plan	TEL:<.><.*>	IF:<1>,TEL:<2>	0	0	<a href="#">Modify</a>	
<b>Delete</b>		<b>Add</b>						

- Set Name = Outbound\_To\_LAN
- select **Submit** and then click “[here](#)” to return

## Dial Planner

Profiles					
Del?	Profile ID	Enabled	Name	Plans	Chg?
<input type="checkbox"/>	1	0	default	===>	<a href="#">Modify</a>
<input type="checkbox"/>	2	1	Outbound_to_LAN	===>	<a href="#">Modify</a>

[Delete](#) [Add](#)

In the **Profiles** section, on Profile ID 2:

➤ Select [Modify](#)

### [Dial Planner](#) > Profile 2

Modify Profile	
Profile ID	2
Enabled	<input checked="" type="checkbox"/>
Name	<input type="text" value="Outbound_to_LAN"/>

[Submit](#)



Plans in this Profile							
Del?	Plan ID	Name	Src	Dest	Cost	Group	Chg?
<input type="checkbox"/>	1	new_plan	TEL:<.><.*>	IF:<1>,TEL:<2>	0	0	<a href="#">Modify</a>

[Delete](#) [Add](#)

In the **Plans in this Profile**, Plan ID 1:

➤ Select [Modify](#)

Regular Expressions for Source	
.	Any character
[...]	Any character within the parentheses
[x-y]	Any character in the range x-y
[^...]	Any character except those within the parentheses
*	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
\	The character following is taken literally
<...>	Capture the sequence in parentheses and store as < n > where n is the nth occurrence of < > in the source expression

- Set Name = Any\_Tel\_Port
- Set Source = IF: [^9] . , TEL: < . \* > *(This takes a call from any of the 8 telephony ports and stores the number dialled in store <1>)*
- Set Destination = IF: 99 , TEL: < 1 > *(This routes the call to IF:99 (the SIP proxy) and passes the dialled number on as the dialled digits)*
- Select  and then click "[here](#)" to return
- Select  ... to return to the **Dial Planner Profiles** section

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 = Inbound\_from\_LAN

Modify the first plan for Profile 3:

- Set Name = Any\_Tel\_Port
- Set Source = IF:99,TEL:<...> *(For calls from IF:99 (SIP), take the two digits presented as the telephone number and store them in store <1>)*
- Set Destination = IF:<1> *(The interface ID (telephone) to ring is defined by the 2 digits passed in store <1>)*
- Select  and then click "[here](#)" to return

**Note:** *The SIP proxy must choose the appropriate interface on the Vega to dial out from; when a call is presented to the Vega, the INVITE message starts something like:*

```
INVITE sip:06@172.20.11.2 SIP/2.0
```

*The digits preceding the @ are then provided to the dial planner as the source TEL:. Hence in the dial plan above the calls coming from the LAN (IF:99) must have a 2-digit dialled number (whose value must be 06 ... 13 for valid Vega 50 interface IDs), which is used to define which telephone to ring.*

***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.***

## 6. Configure SIP and audio parameters

- On the left hand side menu select [SIP](#)

Vega 50  
Configuration

Unsaved & Unapplied Changes

**SIP Configuration**

**General**

Local Domain	abcdefghijwhatever.com
Local SIP Port	5060
Request URI Port	5060
Accept Non-Proxy Invites	<input type="checkbox"/>
QoS profile	0

Submit

**Proxy Configuration**

Mode:  normal  cyclic  
 dnssrv

Minimum Valid Response: 180

Timeout (ms): 5000

SIP Proxy	Enable	IP/DNS Name	Port	Chg?
1	1	0.0.0.0	5060	Modify
2	1	0.0.0.0	5060	Modify

Add Delete

Submit

In the **General** section:

- set Local Domain =

Public\_name\_of\_proxy\_used\_by\_other\_devices\_to\_send\_their\_INVITES\_to

(this value is the “outside world’s” name or IP address for the proxy)

**Optional:** To allow devices other than the proxy to make calls directly through the Vega

- tick Accept Non-Proxy Invites

If only the proxy is allowed to route the calls to the Vega ensure that this tick box is clear.

- select  and then click “[here](#)” to return

In the **Proxy Configuration** section:

- Select [Modify](#)

[SIP](#) > SIP Proxy 1

SIP Proxy 1	
Enable	<input checked="" type="checkbox"/>
IP/DNS Name	<input type="text" value="0.0.0.0"/>
Port	<input type="text" value="5060"/>
<input type="button" value="Submit"/>	

In the **SIP Proxy 1** section:

- set IP/DNS Name = IP\_address\_of\_SIP\_proxy, or DNS\_hostname\_of\_the\_SIP\_Proxy
- select  and then click ["here"](#) to return
  
- Scroll down to the **Audio** section

In the **Audio** section

- Select the audio codecs desired using the drop down menus

Unless there is a specific reason not to allow a specific codec to be used, it is recommended that all codecs should be enabled as follows:

Audio	
Audio Profile 1	<input type="text" value="G723"/>
Audio Profile 2	<input type="text" value="G729"/>
Audio Profile 3	<input type="text" value="G711 Ulaw"/>
Audio Profile 4	<input type="text" value="G711 Alaw"/>
<input type="button" value="Submit"/>	

- select  and then click ["here"](#) to return

## 7. Configure Authentication

In some systems – to ensure that only authorised devices are allowed to set up and clear calls – SIP authentication is used. If authentication is used, it is typically required on the SIP REGISTRATION, INVITE, ACK and BYE messages.

For authentication, a userID and a password can be configured. The userID is constructed from three parts

`auth_usernumber_prefix`, `auth_usernumber` and `auth_usernumber_suffix` each of which may be configured with alphanumeric values.

The prefix and suffix entries are defined per POTS port profile and the `auth_usernumber` is configured per POTS port. Setting parameters to NULL tells the Vega to omit anything from this parameter (capitalisation of NULL is important).

The values to enter here must match the values that have been configured as the authorisation user and password in the proxy.

To configure Authentication, follow the following procedure:

- On the left hand side menu select [SIP](#)
- Scroll down to the bottom of the page



Vega 50 FXS8/FX08 Online Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Print Mail Stop

Address http://217.205.209.247/vsframe?sid=123293171&frame\_id=52 Go

**VegaStream**

Host Name this\_hostname  
IP Address 217.205.209.247  
User Name admin

**Vega 50 Configuration**

**Unsaved & Unapplied Changes**

**Management**  
**Logging**  
**Maintenance**  
**LAN**  
**POTS**  
**Dial Plan**  
**DSP**  
**Media**  
**Tones**  
**SIP**  
**Users**  
**QoS**  
**Supp. Services**  
**Advanced**

Save  
Log off  
Help  
Reboot System  
Apply Changes

RFC2833 payload (96-127) 96  
Enable T38   
Enable Fax   
Fax Detect terminating  
Enable Modem   
Modem Detect terminating  
Media Control Profile 0  
Signalling Application ID none  
T1 Retry Timer Increment (ms) 500  
T2 Retry Timer Limit (ms) 4000  
Interface ID 99  
Cost 1  
Maximum Calls 60

Submit

**Advanced SIP Configuration**  
Advanced SIP

Done Internet

➤ Select [Advanced SIP](#)

Host Name this\_hostname  
IP Address 217.205.209.247  
User Name admin

**Vega 50 Configuration**

Unsaved & Unapplied Changes

**SIP > Advanced**

Advanced SIP parameters	
BYE-Also INVITE to proxy	<input type="checkbox"/>
REFER INVITE to proxy	<input type="checkbox"/>
3xx INVITE to proxy	<input type="checkbox"/>
User-Agent header	<input checked="" type="checkbox"/>
Use 'local domain' in To header	<input checked="" type="checkbox"/>
Use 'local domain' in From header	<input checked="" type="checkbox"/>
Redirected INVITE's preserve To Header	<input checked="" type="checkbox"/>
Use Request-URI in call dialog matching	<input type="checkbox"/>
183 Session Progress if media present	<input type="checkbox"/>
early OK timer (0=off)	<input type="text" value="0"/>
Use authentication users	<input type="checkbox"/>
Restricted User Display Name	<input type="text" value="Anonymous"/>
Parse Remote Party-ID header	<input type="checkbox"/>
Source of TEL	<input type="text" value="Request-URI"/>
SDP control	
Single media description in T38 INVITE	<input type="checkbox"/>
Connection information in session	<input type="checkbox"/>

Save  
Log off  
Help  
Reboot System  
Apply Changes

Done Internet

- Select (tick) Use authentication users, then
- select  and then click “[here](#)” to return
- On the left hand side menu select [POTS](#)

Host Name: this\_hostname  
IP Address: 217.205.209.247  
User Name: admin

**Vega 50 Configuration**

Unsaved & Unapplied Changes

**POTS Configuration**

**Port Configuration**

Port ID	Enabled	nt	Caller ID	Layer 1	Tx Gain	Hardware profile	Interfaces	Chg?
1	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
2	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
3	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
4	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
5	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
6	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
7	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
8	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>

**POTS Interface Profiles**

[POTS Interface Profiles](#)

**Advanced POTS Configuration**

[Advanced POTS](#)

Save  
Log off  
Help  
Reboot System  
Apply Changes

➤ Select [POTS Interface Profiles](#)

### POTS Interface Profiles Configuration

**POTS Interface Profiles**

Profile ID	Caller ID type	Caller ID wait	DTMF dial digit	DTMF dial timeout	Line busy cause	Chg?
1	off	6000	*	10	17	<a href="#">Modify</a>

Delete Add

➤ Select [Modify](#)

Host Name this\_hostname  
IP Address 217.205.209.247  
User Name admin

**Vega 50 Configuration**

Unsaved & Unapplied Changes

**Management**  
Logging  
Maintenance  
LAN  
POTS  
Dial Plan  
DSP  
Media  
Tones  
SIP  
Users  
QoS  
Supp. Services  
Advanced

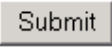
Save  
Log off  
Help  
Reboot System  
Apply Changes


**POTS > Profile 1**

Modify Profile	
Profile ID	1
Line busy cause	17
Caller ID wait	6000
Caller ID type	off
DTMF Termination Char	*
DTMF Dial Timeout	10
Authentication username prefix	NULL
Authentication username suffix	unit1
Authentication usernumber prefix	NULL
Authentication usernumber suffix	01
Username prefix	NULL
Username suffix	unit1
Usernumber prefix	NULL
Usernumber suffix	01

Submit

➤ **Configure the Authentication versions of**  
usernumber prefix and usernumber suffix

➤ select  and then click "[here](#)" to return

➤ select  ... to return to the POTS configuration page

Host Name: this\_hostname  
 IP Address: 217.205.209.247  
 User Name: admin

**Vega 50 Configuration**

Unsaved & Unapplied Changes

**POTS Configuration**

**Port Configuration**

Port ID	Enabled	nt	Caller ID	Layer 1	Tx Gain	Hardware profile	Interfaces	Chg?
1	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
2	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
3	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
4	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
5	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
6	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
7	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
8	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>

**POTS Interface Profiles**  
[POTS Interface Profiles](#)

**Advanced POTS Configuration**  
[Advanced POTS](#)

Save  
 Log off  
 Help  
 Reboot System  
 Apply Changes

The Authentication username and password are configured on a per port basis.

In the **Port Configuration** section, for Port ID 1

- Select [Modify](#)

**POTS > Port 1**

Modify Port	
Port ID	1
Enable	<input checked="" type="checkbox"/>
Layer 1	g711Alaw64k
Caller ID	on
NT	1
Tx Gain	<input type="checkbox"/>
Hardware profile	1
<input type="button" value="Submit"/>	

Interface Configuration												
Port Index	Interface Profile	Interface number	DN	cost	Registration enabled	Username	Usernumber	Authentication username	Authentication usernumber	Password	Ring Index	Chg?
1	1	06	06	1	1	port1	01	port1	01	user1	2	<a href="#">Modify</a>
<input type="button" value="Delete"/>		<input type="button" value="Add"/>										

In the **Interface Configuration** section, for Port Index 1

➤ Select [Modify](#)

Vega 50 FXS8/FX08 Online Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop

Address http://217.205.209.247/vsframe?sid=123293171&frame\_id=123 Go

VegaStream

Host Name this\_hostname  
IP Address 217.205.209.247  
User Name admin

Unsaved & Unapplied Changes

Vega 50 Configuration

Management  
Logging  
Maintenance  
LAN  
POTS  
Dial Plan  
DSP  
Media  
Tones  
SIP  
Users  
QoS  
Supp. Services  
Advanced

Save  
Log off  
Help  
Reboot System  
Apply Changes

POTS > Port 1 > Interface 1

**Modify Interface**

Port Index	1
Interface Profile	1
Interface ID	06
Cost	1
Ring index	2
dn	06
Username	port1
Usernumber	01

Submit

**Registration**

Enable	1
Authorization username	port1
Authorization usernumber	01
Password	user1

Submit

- Configure Authentication usernumber and Password
- select **Submit** and then click "[here](#)" to return

## POTS Configuration

Port Configuration								
Port ID	Enabled	nt	Caller ID	Layer 1	Tx Gain	Hardware profile	Interfaces	Chg?
1	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
2	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
3	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
4	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
5	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
6	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
7	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
8	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
9	1	0	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
10	1	0	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>

- Repeat configuring the Authentication username and Password for all other Ports



## 8. Configure Registration

Registration provides the SIP proxy with two main pieces of information:

- “address” – the public address of the Vega port (the URL which other SIP endpoints will use to make calls to this port)
- “contact” – the URL which the proxy is to use to make the call on that port on the Vega

When a SIP call request is sent to the SIP proxy, it receives the call to a public address, it then performs a translation from the public address to the contact format, and uses the contact format to present the call to the Vega.

The Registration format is:

```
--- address:
    Public_Address@Registration_Domain
--- contact:
    <sip:DN@Host_Name_or_IP_address_of_Vega>
```

The Vega registers twice for each physical port – once using a numeric address, and once using an alphanumeric address. Both registrations use the same contact address, so that when a call arrives, the Vega is not aware of whether the call was made using the numeric URL, or whether the call was made using the alphanumeric URL.

For the alphanumeric registration, `Public_Address` is made up of `Username_prefix`, `Username`, and `Username_suffix`; the prefix and suffix being per unit values and the `Username` being per port values.

For the numeric registration, `Public_Address` is made up of `Usenumber_prefix`, `Usenumber`, and `Usenumber_suffix`; the prefix and suffix being per unit values and the `Usenumber` being per port values.

The registration details are configurable using the Command Line Interface or the web browser interface.

Alphanumeric registration (name registration) uses configurable entries:

- `Username_prefix` ... per unit value
- `Username` ... per port value
- `Username_suffix` ... per unit value
- `Local Domain (Registration_Domain)` ... already configured in section 6
- `DN` ... per port value
- `Host_Name_or_IP_address_of_Vega` ... set up by DHCP or in section 4

Name Registration message format:

```
--- address:
    Username_prefixUsernameUsername_suffix@Registration_Domain
--- contact:
    <sip:DN@Host_Name_or_IP_address_of_Vega>
```

Numeric registration uses configurable entries:

- Usernumber\_prefix ... per unit value
- Usernumber ... per port value
- Usernumber\_suffix ... per unit value
- Local Domain (Registration\_Domain) ... already configured in section 6
- DN ... per port value
- Host\_Name\_or\_IP\_address\_of\_Vega ... set up by DHCP or in section 4

Number Registration message format:

```
--- address:
    Usernumber_prefixUsernumberUsernumber_suffix@Registration_Domain
--- contact:
    <sip:DN@Host_Name_or_IP_address_of_Vega>
```

e.g. to set up registration so that the Vega registers:

#### Port 1

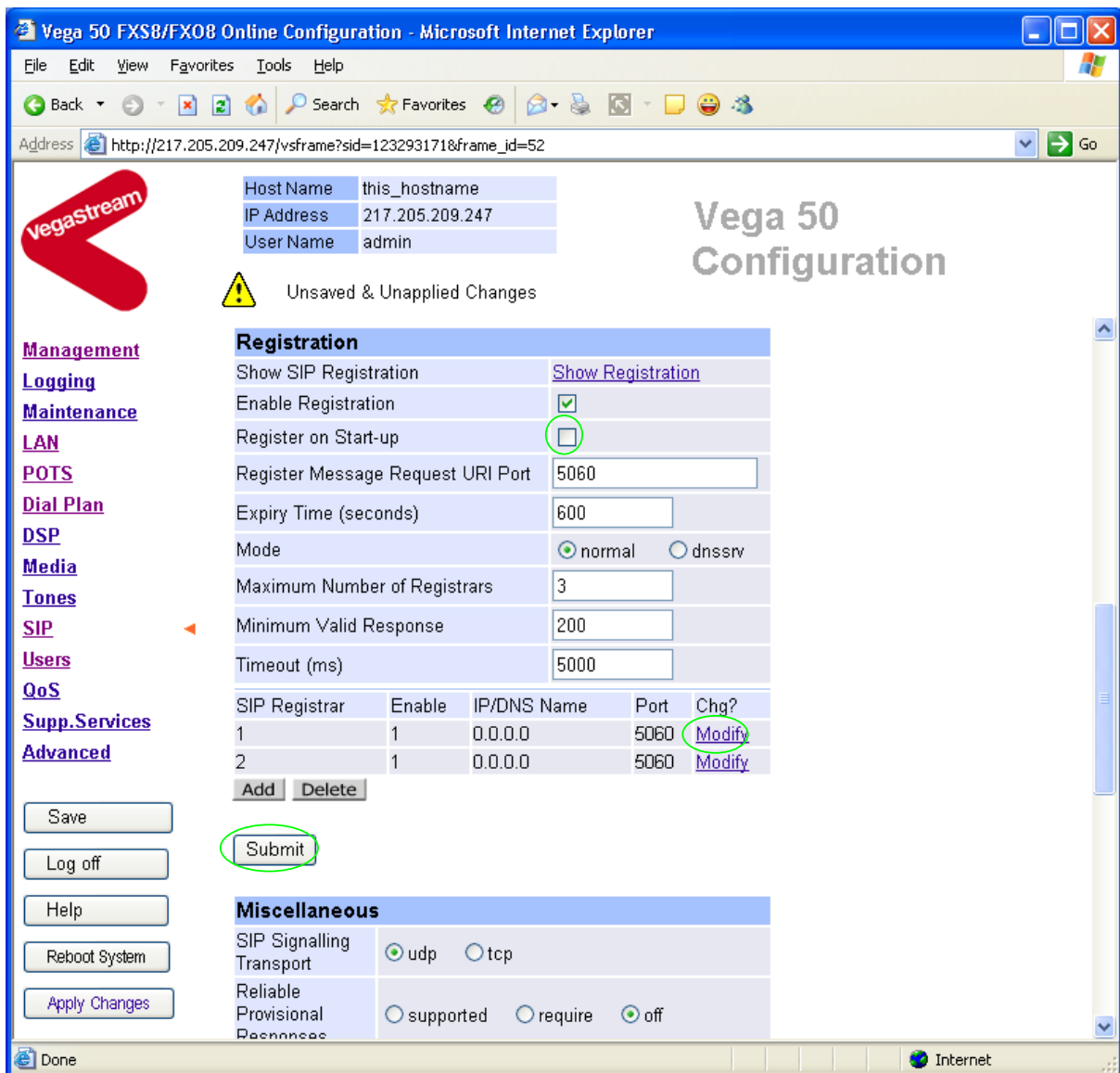
```
--- address:
    Unit1Port1Vega50@Registration_Domain
--- contact:
    <sip:06@Host_Name_or_IP_address_of_Vega>
--- address:
    55501@Registration_Domain
--- contact:
    <sip:06@Host_Name_or_IP_address_of_Vega>
```

•  
•  
•

#### Port 8 Name

```
--- address:
    Unit1Port8Vega50@Registration_Domain
--- contact:
    <sip:13@Host_Name_or_IP_address_of_Vega>
--- address:
    55508@Registration_Domain
--- contact:
    <sip:13@Host_Name_or_IP_address_of_Vega>
```

- On the left hand side menu select [SIP](#)
- Scroll down to the **Registration** section



- Tick Register on Start-up

*This will cause the Vega to register with the proxy every time it is powered on or re-booted*

- select **Submit** and then click "[here](#)" to return

Return to the **Registration** section. For SIP Registrar 1:

- Select [Modify](#)

[SIP](#) > SIP Registrar 1

SIP Registrar 1	
Enable	<input checked="" type="checkbox"/>
IP/DNS Name	<input type="text" value="0.0.0.0"/>
Port	<input type="text" value="5060"/>
<input type="button" value="Submit"/>	

- Set IP/DNS Name = `IP_or_DNS_name_of_SIP_registrar_or_machine proxying_for_the_registrar`
- select  and then click "[here](#)" to return

- On the left hand side menu select [POTS](#)

The screenshot shows the Vega 50 Online Configuration web interface in Microsoft Internet Explorer. The browser title is "Vega 50 FXS8/FX08 Online Configuration - Microsoft Internet Explorer". The address bar shows the URL: http://217.205.209.247/vsframe?sid=123293171&frame\_id=5. The page features the VegaStream logo on the left and a navigation menu with items like Management, Logging, Maintenance, LAN, POTS, Dial Plan, DSP, Media, Tones, SIP, Users, QoS, Supp.Services, and Advanced. The main content area is titled "Vega 50 Configuration" and includes a "POTS Configuration" section. A table titled "Port Configuration" lists 8 ports, each with a "Modify" link. Below this is a "POTS Interface Profiles" section with a "POTS Interface Profiles" link circled in green. Further down is an "Advanced POTS Configuration" section with an "Advanced POTS" link. On the left side of the main content, there are buttons for Save, Log off, Help, Reboot System, and Apply Changes. A yellow warning icon indicates "Unsaved & Unapplied Changes".

- Select [POTS Interface Profiles](#)

### POTS Interface Profiles Configuration

POTS Interface Profiles						
Profile ID	Caller ID type	Caller ID wait	DTMF dial digit	DTMF dial timeout	Line busy cause	Chg?
1	off	6000	*	10	17	<a href="#">Modify</a>

Delete Add

- Select [Modify](#)

Host Name: this\_hostname  
IP Address: 217.205.209.247  
User Name: admin

**Vega 50 Configuration**

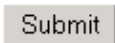

Unsaved & Unapplied Changes

**Management**  
**Logging**  
**Maintenance**  
**LAN**  
**POTS**  
**Dial Plan**  
**DSP**  
**Media**  
**Tones**  
**SIP**  
**Users**  
**QoS**  
**Supp. Services**  
**Advanced**

**POTS > Profile 1**

Modify Profile	
Profile ID	1
Line busy cause	17
Caller ID wait	6000
Caller ID type	off
DTMF Termination Char	*
DTMF Dial Timeout	10
Authentication username prefix	NULL
Authentication username suffix	unit1
Authentication usernumber prefix	NULL
Authentication usernumber suffix	01
Username prefix	NULL
Username suffix	unit1
Usernumber prefix	NULL
Usernumber suffix	01

Save  
Log off  
Help  
Reboot System  
Apply Changes  
Submit

- Set Username prefix = Unit1
- Set Username suffix = Vega50
- Set Usernumber prefix = 555
- Set Usernumber suffix = NULL *(NULL specifies no suffix; NULL must be in capitals)*
- select  and then click "[here](#)" to return
- select  ... to return to the POTS configuration page

Host Name: this\_hostname  
 IP Address: 217.205.209.247  
 User Name: admin

**Vega 50 Configuration**

Unsaved & Unapplied Changes

**POTS Configuration**

**Port Configuration**

Port ID	Enabled	nt	Caller ID	Layer 1	Tx Gain	Hardware profile	Interfaces	Chg?
1	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
2	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
3	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
4	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
5	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
6	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
7	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
8	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>

**POTS Interface Profiles**  
[POTS Interface Profiles](#)

**Advanced POTS Configuration**  
[Advanced POTS](#)

Save  
 Log off  
 Help  
 Reboot System  
 Apply Changes

The username, user number and Contact DN are configured on a per port basis.

In the **Port Configuration** section, for Port ID 1

- Select [Modify](#)

**POTS > Port 1**

Modify Port	
Port ID	1
Enable	<input checked="" type="checkbox"/>
Layer 1	g711Alaw64k
Caller ID	on
NT	1
Tx Gain	<input type="checkbox"/>
Hardware profile	1
<input type="button" value="Submit"/>	

Interface Configuration												
Port Index	Interface Profile	Interface number	DN	cost	Registration enabled	Username	Usernumber	Authentication username	Authentication usernumber	Password	Ring Index	Chg?
1	1	06	06	1	1	port1	01	port1	01	user1	2	<a href="#">Modify</a>
<input type="button" value="Delete"/> <input type="button" value="Add"/>												

In the **Interface Configuration** section, for Port Index 1

- Select [Modify](#)



- check that DN = 06
- set Username = Port1
- set Usernumber = 01
- select **Submit** and then click "[here](#)" to return

Return to this page

Registration	
Enable	<input type="text" value="1"/>
Authorization username	<input type="text" value="port1"/>
Authorization usernumber	<input type="text" value="01"/>
Password	<input type="text" value="user1"/>
<input type="button" value="Submit"/>	

In the **Registration** section:

- check that **Enable** in the **Registration** section is set to 1
- select  and then click "[here](#)" to return

### POTS Configuration

Port Configuration								
Port ID	Enabled	nt	Caller ID	Layer 1	Tx Gain	Hardware profile	Interfaces	Chg?
1	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
2	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
3	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
4	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
5	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
6	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
7	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
8	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
9	1	0	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
10	1	0	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>

Repeat for Port ID 2:

- check that DN = 07
- set Username = Port2
- check Usernumber = 02
- check that **Enable registration** is set to 1

Repeat for Port ID 3:

- check that DN = 08
- set Username = Port3
- check Usernumber = 03
- check that **Enable registration** is set to 1

Etc up to:

Repeat for Port ID 8:

- check that DN = 13
- set Username = Port8
- check Usernumber = 08
- check that **Enable registration** is set to 1

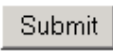
**Recommended:** Configure the Vega to reject calls with cause code 38 if registration fails (this allows calls to be re-presented in the dial plan immediately, rather than having to wait for the SIP timeouts to find that the SIP proxy is not available to handle the INVITE)

On the left hand side menu select [Advanced](#), and scroll to the CLI Command section:



The image shows a web interface for entering CLI commands. At the top, there is a blue header with the text "CLI Command". Below the header is a text input field with a light blue border. To the right of the input field is a grey button with the text "Submit".

Enter

- `set _advanced.sip.invite.registered=1`
  
- Select  and then close the CLI command window

*When a remote caller attempts to contact any of the Name or Number URL addresses the SIP registrar will look up the registration information and will translate the URL, causing the Vega to be called at the appropriate contact address (DN@Host\_Name\_or\_IP\_address of\_Vega).*

## 9. Configure POTS parameters

- On the left hand side menu select [POTS](#)

Host Name: this\_hostname  
 IP Address: 217.205.209.247  
 User Name: admin

**Vega 50 Configuration**

Unsaved & Unapplied Changes

**POTS Configuration**

**Port Configuration**

Port ID	Enabled	nt	Caller ID	Layer 1	Tx Gain	Hardware profile	Interfaces	Chg?
1	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
2	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
3	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
4	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
5	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
6	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
7	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>
8	1	1	on	g711Alaw64k	0	1	====>	<a href="#">Modify</a>

**POTS Interface Profiles**

[POTS Interface Profiles](#)

**Advanced POTS Configuration**

[Advanced POTS](#)

Save  
 Log off  
 Help  
 Reboot System  
 Apply Changes

- Select [POTS Interface Profiles](#)

### POTS Interface Profiles Configuration

Profile ID	Caller ID type	Caller ID wait	DTMF dial digit	DTMF dial timeout	Line busy cause	Chg?
1	off	6000	*	10	17	<a href="#">Modify</a>

Delete Add

- Select [Modify](#)

Host Name this\_hostname  
IP Address 217.205.209.247  
User Name admin

**Vega 50 Configuration**

Unsaved & Unapplied Changes

**POTS > Profile 1**

**Modify Profile**

Profile ID	1
Line busy cause	17
Caller ID wait	6000
Caller ID type	off
DTMF Termination Char	*
DTMF Dial Timeout	10
Authentication username prefix	NULL
Authentication username suffix	unit1
Authentication usernumber prefix	NULL
Authentication usernumber suffix	01
Username prefix	Unit1
Username suffix	Vega50
Usernumber prefix	555
Usernumber suffix	NULL

Submit

Now configure the per port information

- Make DTMF Dial Timeout = 5

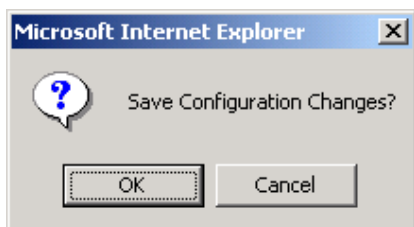
**Optional:** Change the DTMF Termination character from \* to #

- select  and then click ["here"](#) to return

## 10. Save Changes

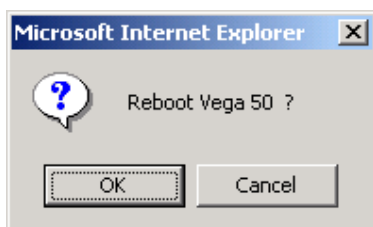
The changes to the configuration must be saved and activated. This is carried out as follows:

- Select



- Select  and after the configuration has been saved click "[here](#)" to return

- Select



- Select

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

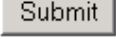
## 11. Archive Vega Configuration

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 [LAN](#) page), then on the left hand side menu select [Advanced](#), and scroll to the CLI Command section:



The screenshot shows a web interface for configuring the CLI command. At the top, there is a blue header with the text "CLI Command". Below the header is a text input field with a light blue border. To the right of the input field is a grey button with the text "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](http://www.VegaAssist.com)

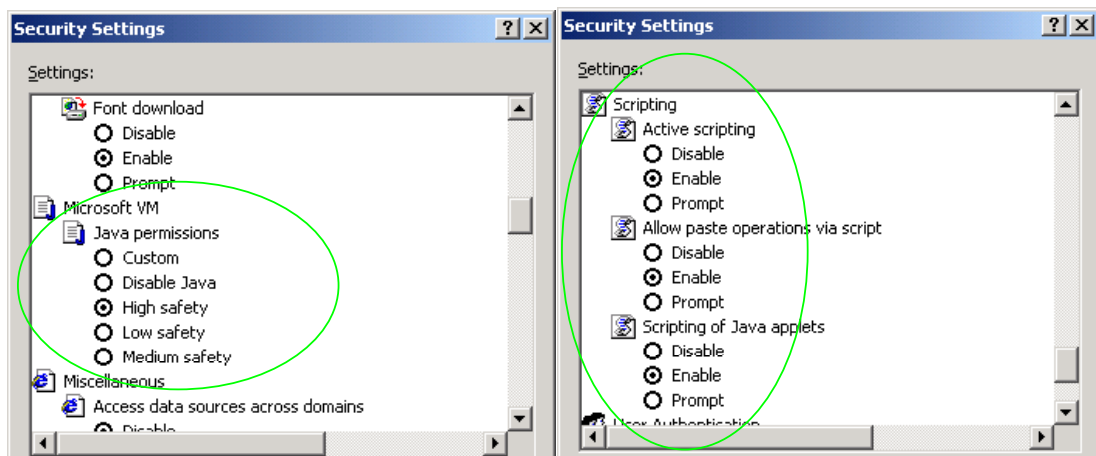
If you require help from VegaStream support personnel, please use the serial interface or telnet into the unit, log in and then type:

- show support
- sip monitor on
- 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](mailto: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. Loss of audio mid call – consider reducing the selection of available codecs (see section 1.5). Some equipment, when presented with multiple codecs, may try and switch codec mid-call. Vegas do not support changing codec type mid-call.
4. Mismatched audio codecs. Use SIP monitor on to identify this. If the codecs of the endpoints are mismatched this will be reported as error 606 “No matching media”. To rectify, enable the appropriate audio codec (see section 1.5).
5. Outbound calls from the Vega send the INVITE to “Default Proxy Host Name/IP” with the request line: “INVITE sip: <dest TEL:>@Default Proxy Host Name/IP”.



Contact Details

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[www.vegaassist.com](http://www.vegaassist.com)

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