



INTERACTIVE INTELLIGENCE
Deliberately Innovative

3rd Party Certified Equipment Supplemental Information

Certification Completed On:
August 31st, 2012

8.6 S032 – Sangoma – Vega 100/200/400



1 Important Notes

- Check the *SIP 3rd Party Validation Website* for current validation status. The *SIP 3rd Party Validation Website* can be viewed at: <http://testlab.inin.com>
- Leaving the “Network Protocol,” “Framing,” and “Line Encoding” as “auto” in the “E1/T1 Configuration” can cause character stripping issues to occur in the Caller ID field. It is better to set these manually.

2 Vendor Documentation

<http://wiki.sangoma.com/Vega-400>

3 Validated Firmware Version

8.6 S032

4 Install

Download the Vega 400 files from the Interactive Intelligence Testlab website:
<http://testlab.inin.com/FeatureListPage.aspx?ProductType=1&ProductIDs=130>

Contained in the zip file will be the validated firmware (.abs), and a sample configuration file (.txt). The sample “config.txt” file will configure the first two Vega 400 E1/T1 ports (trunks) as an ISDN loopback.

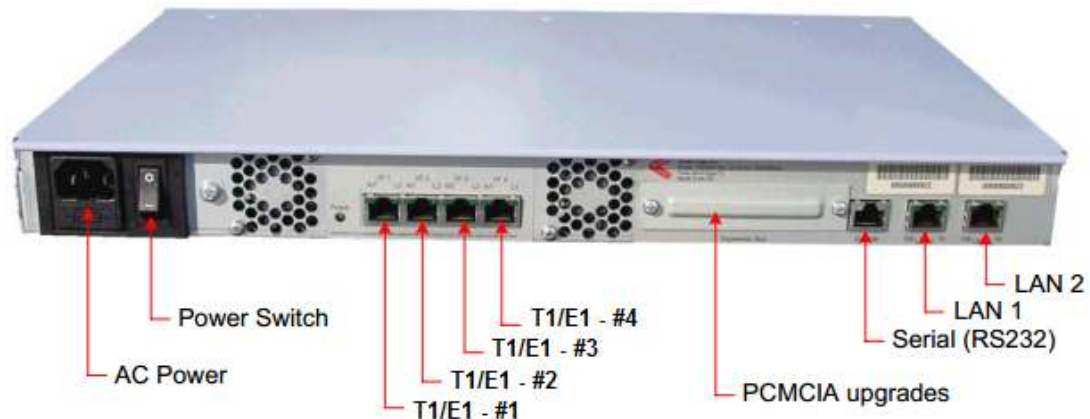
5 Configuration

Methods:

- Web interface. This method was used to configure the unit during validation. There are many advanced options that are exposed in the web interface. Caution should be exercised and the Sangoma documentation should always be referenced when using the web interface configuration option.

Initial Setup:

- The Vega 400 comes with a standard console cable. Plug the RJ45 side of the cable into the “Serial RS232” port as labeled below. The other end of the cable is DB9 (RS232) connect this to your desktop or laptop port.



Note: T1/E1 Ports In NT Mode Flip TX and RX Pins. Therefore TE <-> NT Connections Do Not Require a Cross Over Cable.

- Now configure your terminal program using the following information.
Baud Rate: 115200 bps
Data: 8 bits
Parity: None
Stop: 1 bit
- Next connect the “LAN1” port to your network which has DHCP enabled on it.
- Plug in the AC power cord and flip the switch on.
- The unit will now boot and get an IP address and you should see output on the console which displays the IP address. Now point your web browser to this IP address and log in with the username “admin” and password “admin”.

Download Current Firmware:

- Download firmware from:
http://testlabadmin.inin.com/compatibilityfileAdmin/documents/VEGA400_R086S032.zip
ftp://ftp.sangoma.com/vega/firmware/vega400/VEGA400_R086S032.zip
- Follow steps at <http://wiki.sangoma.com/vega-firmware-update-procedure> to upgrade the firmware. Ensure you upload the “VEGA400_R086S032.abs” file to the Vega and not the ZIP file.

Changing the Configuration:

- Once in the Vega webUI go to “Quick Config -> Basic Config” and you will see the page shown below.

Priority	1	2	3	4
Voice	g729	g711Ulaw64k	g711Alaw64k	g7231
Data	G3udp	g711Alaw64k	g711Ulaw64k	ochat

- Change the country to the correct country setting. Then if a STATIC ip is required configure this along with the gateway and DNS. Also codec preferences are at the bottom as well.
- Next go to the “VoIP” tab and simply set the “Proxy domain name” to the IP address of the Vega unit and the “Proxy address” to the IP of the IC server.

Proxy domain name	10.10.220.80
Proxy address	10.10.10.158
Registrar address	
Outbound proxy address	0.0.0.0
Registration Mode	Off
Registration and Authentication ID	Reg and Auth ID
Authentication Password	****

Vega IP – 10.10.220.80

IC Server – 10.10.10.158

- To configure the T1/E1 connection go to “Expert Config -> E1/T1”. Change the “Network Topology” to be either E1 or T1.
- Update the “Network Protocol,” “Framing,” and “Line Encoding” accordingly. Then click submit.

E1/T1

E1/T1 Configuration

Network Topology: t1

Ports

Port	1	2	3	4
Enabled	<input type="button" value="on"/>	<input type="button" value="on"/>	<input type="button" value="off"/>	<input type="button" value="off"/>
Network Protocol	<input type="button" value="ni"/>	<input type="button" value="auto"/>	<input type="button" value="auto"/>	<input type="button" value="auto"/>
NT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Clock Master	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bus Master Priority	<input type="button" value="1"/>	<input type="button" value="0"/>	<input type="button" value="1"/>	<input type="button" value="0"/>
Framing	<input type="button" value="esf"/>	<input type="button" value="auto"/>	<input type="button" value="auto"/>	<input type="button" value="auto"/>
Line Encoding	<input type="button" value="b8zs"/>	<input type="button" value="auto"/>	<input type="button" value="auto"/>	<input type="button" value="auto"/>
T1 tx Equalization	<input type="button" value="sh220_330"/>	<input type="button" value="sh220_330"/>	<input type="button" value="sh220_330"/>	<input type="button" value="sh220_330"/>
Groups	Modify Groups	Modify Groups	Modify Groups	Modify Groups

- Next go to “Expert Config -> Dial Plan” then click “Modify” next to “To_E1T1” as shown above.

Dial Planner

Profiles

Del?	ID	Name	Enabled	
<input type="checkbox"/>	1	<input type="text" value="new_profile"/>	<input type="checkbox"/>	Modify
<input type="checkbox"/>	20	<input type="text" value="To_SIP"/>	<input checked="" type="checkbox"/>	Modify
<input type="checkbox"/>	21	<input type="text" value="To_E1T1"/>	<input checked="" type="checkbox"/>	Modify

- Delete the last three routes so there is only 1 as shown below. The source field should read "IF:99...,TEL:<.*>" and the destination should be "IF:1986,TEL:<1>"

Dial Planner > Profile 21

Plans In This Profile

Del?	Plan ID	Name	Source	Destination	Cost	Group
<input type="checkbox"/>	1	E1T1_01	IF:99...,TEL:<.*>	IF:1986,TEL:<1>	0	99 - Re-Presentation

- Then submit the changes and go to "Expert Config -> Dial Plan" go into the "Call Presentation Groups" to see what ports are in the presentation group "1986". Below is how to configure the destinations field depending on how many ports you have.

Call Presentation Groups

Del?	ID	Name	Enable	Interface	Seq. Mode	Dest. Timeout	Dest. Action	Ma De Att
<input type="checkbox"/>	1	default	<input type="checkbox"/>	1001	round_robin	180	try_next_dest	8
		Destinations IF:0401 IF:0402 IF:0403 IF:0404						
<input type="checkbox"/>	24	E1T1_04	<input checked="" type="checkbox"/>	1983	round_robin	180	try_next_dest	8
		Destinations IF:0404						
<input type="checkbox"/>	25	E1T1_03	<input checked="" type="checkbox"/>	1984	round_robin	180	try_next_dest	8
		Destinations IF:0403						
<input type="checkbox"/>	26	E1T1_02	<input checked="" type="checkbox"/>	1985	round_robin	180	try_next_dest	8
		Destinations IF:0402						
<input type="checkbox"/>	27	E1T1_01	<input checked="" type="checkbox"/>	1986	round_robin	180	try_next_dest	8
		Destinations IF:0401						

- The "Destinations" field should have the following string depending on how many ports you have.

1 Port - "IF:0401"
 2 Port - "IF:0401|IF:0402"
 3 Port - "IF:0401|IF:0402|IF:0403"
 4 Port - "IF:0401|IF:0402|IF:0403|IF:0404"

- Next go to “Expert Config -> Media” then click modify on compatibility set 2 as shown below.

Media Capability Sets			
Capability Set	Name	Capability Indices	Chg?
1	voice	6,2,3	Modify
2	voice+t38Udp	6,3,2,1,5	Modify
3	g711faxmodem	8,4	Modify

- Then change the capability indices to read “6,3,2,1,5” then click submit.

Capability Set 2	
Name	<input type="text" value="voice+t38Udp"/>
Capability Indices	<input type="text" value="6,3,2,1,5"/>
<input type="button" value="Submit"/>	

- Now the entire configuration is done so to save this click “Apply Changes” and then “Save” to keep all the changes.

<input type="button" value="Apply Changes"/>
<input type="button" value="Save"/>

Changing the Configuration (Additional Steps for RBS):

- To change from PRI signaling to CAS go to "Expert Config -> E1/T1" and change the network protocol to "cas-rbs" and click submit.

Ports				
Port	1	2	3	4
Enabled	on	on	on	on
Network Protocol	cas-rbs	auto	auto	auto
NT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Clock Master	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bus Master Priority	1	0	1	0
Framing	auto	auto	auto	auto
Line Encoding	auto	auto	auto	auto
T1 tx Equalization	sh110_220	sh220_330	sh220_330	sh220_330
Groups	Modify Groups	Modify Groups	Modify Groups	Modify Groups
<input type="button" value="Submit"/>				

- Then next open the T1 CAS section and place a "N" into rx dial format string and tx dial format string. Then select your variant of signaling. In the example below e&m wink is selected.

T1 CAS				
Port	1	2	3	4
RX Dial Format String	N	.	.	.
TX Dial Format String	N	.	.	.
Digit Dial Timeout	2	2	2	2
Info	dtmf	dtmf	dtmf	dtmf
Signal	em_wink	em_wink	em_wink	em_wink
Tone Delay	50	50	50	50
FSK Tone Format	off	off	off	off
FSK Tone Delay	2000	2000	2000	2000
FSK Time Type	DST	DST	DST	DST
Progress Tones Present	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="button" value="Submit"/>				

6 Redundant Proxy Configuration

- Now go to “Expert Config -> SIP” then click “Modify” next to sip profile number 1.

SIP Profiles				
SIP Profile	Name	Interface ID	Other SIP Profile Parameters	Chg?
1	profile1	9901	==>	Modify

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

- Next click “Add” in the SIP Proxy setting and you will see two SIP proxies as shown below. Then click “Modify” next to the new proxy.

SIP Profile 1 Proxy Parameters 1				
Request-URI Port	<input type="text" value="5060"/>			
Minimum Valid SIP Response	<input type="text" value="180"/>			
Proxy Mode	<input checked="" type="radio"/> normal <input type="radio"/> cyclic <input type="radio"/> dnssrv			
Timeout (ms)	<input type="text" value="5000"/>			
Proxy Retry Delay (s)	<input type="text" value="0"/>			
Accessibility Check	<input checked="" type="radio"/> off <input type="radio"/> options <input type="radio"/> bye			
Submit				
SIP Proxy	Enable	IP/DNS Name	Port	Chg?
1	1	10.10.140.90	5060	Modify
2	0	0.0.0.0	5060	Modify

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

- Now enter the IP address of the secondary IC server and ensure “Enable” is checked then click Submit

SIP Proxy 2	
Enable	<input checked="" type="checkbox"/>
IP/DNS Name	<input type="text" value="10.10.10.158"/>
Port	<input type="text" value="5060"/>
Submit	

- Now go to "Expert Config -> SIP" then change the timeout as shown below from "5000" to "500" and click submit.

SIP Profile 1 Proxy Parameters 1

Request-URI Port	5060
Minimum Valid SIP Response	180
Proxy Mode	<input checked="" type="radio"/> normal <input type="radio"/> cyclic <input type="radio"/> dnssrv
Timeout (ms)	500
Proxy Retry Delay (s)	0
Accessibility Check	<input checked="" type="radio"/> off <input type="radio"/> options <input type="radio"/> bye

Submit

SIP Proxy	Enable	IP/DNS Name	Port	Chg?
1	1	10.10.140.90	5060	Modify
2	1	10.10.10.158	5060	Modify

Add Delete

- Then go to "Expert Config -> SIP" and scroll down to "Miscellaneous" and set the reliable provisional responses to "supported" then click submit as shown below.

Miscellaneous

Default URI Scheme	sip		
Reliable Provisional Responses	<input type="radio"/> off	<input checked="" type="radio"/> supported	<input type="radio"/> require
DTMF Transport	<input checked="" type="radio"/> rfc2833	<input type="radio"/> info	<input type="radio"/> rfc2833 and tx info
	<input type="radio"/> rfc2833 and rx info	<input type="radio"/> off	
DTMF INFO	<input checked="" type="radio"/> mode1	<input type="radio"/> mode2	

- Then still in "Expert Config -> SIP" go down to Miscellaneous and set faxdetect to "always" as shown below.

Miscellaneous

Default URI Scheme	sip		
Reliable Provisional Responses	<input type="radio"/> off	<input checked="" type="radio"/> supported	<input type="radio"/> require
DTMF Transport	<input checked="" type="radio"/> rfc2833	<input type="radio"/> info	<input type="radio"/> rfc2833 and tx info
	<input type="radio"/> rfc2833 and rx info	<input type="radio"/> off	
DTMF INFO	<input checked="" type="radio"/> mode1	<input type="radio"/> mode2	
RFC2833 payload (96-127)	101		
Use T38 AnnexE	<input type="checkbox"/>		
Accept T38 AnnexE	<input type="checkbox"/>		
Fax Detect	always		

- Now the entire configuration is done so to save this click “Apply Changes” and then “Save” to keep all the changes.

