Getting BSAP Addressing Information for AES from OpenBSI Netview

Before troubleshooting the AES configuration for a BSAP RTU, make sure that you actually are able to communicate with the RTU using OpenBSI. Otherwise the problem might be caused by a hardware issue, not an incorrect AES configuration setting.

Note: Screen captures below are taken from OpenBSI Netview, version 5.6. Screens from other versions or different OpenBSI programs may not match exactly.

1) Start Netview and open the .NDF file that was used to communicate with the BSAP RTU. This will bring up a tree list containing the OpenBSI network configuration.

2) In the OpenBSI network list, select the network that the BSAP RTU is on. Settings for that network will appear in the window to the right of the tree list.

NetView - [C:\OpenBSI\TestGFC.NDF]				
🟟 Eile Edit Security View Window Help				_ 8 ×
MDrobnic3				
	Network:	BsapNet		
EtherNet	NetType:	BSAP		
	Notwork Lougle:	127 127 1 0 0 0		
	INGOVOIN LEVEIS.	1121,121,130,0,0		
For Help, press F1			SYSTEM	

3) The **Network Levels** field from the OpenBSI network settings is used to set the **Max devices per level** fields in the Device tab of the AES configuration for a BSAP RTU:

Properties		X
Logging Device	Time Synchronization Data Sharing Ge Upload Polling Connection Op	eneral otions
Name Bsa	b3335	
Per connec	tion Primary 💌 dress 🔻	
Local Add	fress Group Number Global Address dec 0 dec 100 hex	
Global add	ess required if ethernet RTU's level is greater than 1.	
This devic	e's level 1 💌 🔽 VSAT Slave Mode	
Max devic 1 127 – Line initiat	es per level 2 3 4 5 6 127 • 1 • 0 • 0 • 0 • ion bytes 1 No data retries delay (msec) 1000	
Poll Perio	d (sec) 60 RBE Init Message	
Max Data By Per Message	NRT and Time Synch Options	
Valid signal r	ame (to poll MSD version) RTU Type	
#TIME.000.	Network 3000	
File name (.a	cc or .sig) for browse items	
	SAP Ethernet	
	OK Cancel H	Help
Modified:	2013/01/02 08:30:43	
Downloaded:	2012/12/11 14:36:01	00000BD

Note #1: An Ethernet network in OpenBSI will not include the **Network Levels** field. For Ethernet RTUs, just accept the AES default values for **Max devices per level**, unless the customer is also using a serial network to communicate with a lower level RTU. In that case, there should also be a serial network configuration in OpenBSI that you can get the **Network Levels** from.

Note #2: If a **Network Levels** number is not included in the **Max devices per level** dropdown list, select the next highest number. For example, if a **Network Levels** number is 20, select 31 in the corresponding **Max devices per level** list.

4) In OpenBSI, open the network list and select the RTU that is being configured in AES. Settings for that RTU will appear in the window to the right of the tree list:

NetView - [C:\OpenBSI\Te	estEther.NDF]	
🟟 Eile Edit Security View V	/indow <u>H</u> elp	_ 8 ×
	2 🔍 🦹 🦹	
MDrobnic3 MDrobnic3 TestNet Master Slave TestEther	RTU: Master Descriptor: Local Address: 1 RTU's Primay Line: COM1	Load File: Master Group #: Node Level: 1
		Primary Status: 0 01 = Off-Line 0 02 = Time Synch 0 04 = RTU Dead 08 = Config Error 0 10 = RTU download 0 20 = RTU needs poll
	0 0 0 0 0 0 0	0 0 134 0
For Help, press F1		SYSTEM

5) The **Group #** field in OpenBSI indicates whether EBSAP addressing should be used in AES. If the **Group #** field is grayed out and empty, EBSAP addressing should not be used in AES; local or global addressing will be used instead. However, If the **Group #** field in OpenBSI has a value, select **EBSAP Address** in AES (rather than **Local Address** or **Global Address**), and set the **Group Number** field in AES to the value of the **Group #** field in OpenBSI.

6) If EBSAP addressing is not to be used in AES, the **Node Level** field in OpenBSI indicates whether local or global addressing should be used instead. If the **Node Level** is 1 in OpenBSI, select **Local Address** in AES. If the **Node Level** is greater than 1, select **Global Address**.

7) In OpenBSI, right click on the RTU, select Properties, and go to the BSAP tab:

Rtu Properties		×
Name BSAP Internal Addressing Global Address:	8Ax	
Local Address:		
Network Level:	2	
NRT Index:	0	
Network Links		
Predecessor: Master	Forward:	
Network MDrobr	nic3 First Slave:	
	OK Cancel Apply Help	

8) The RTU Properties screen in OpenBSI indicates what values should be used for the global address and local address in AES. The **Network Level** field in OpenBSI indicates what **This device's level** should be set to in AES.