

SNA Terminal to TCP/IP Configuration Worksheet

Overview

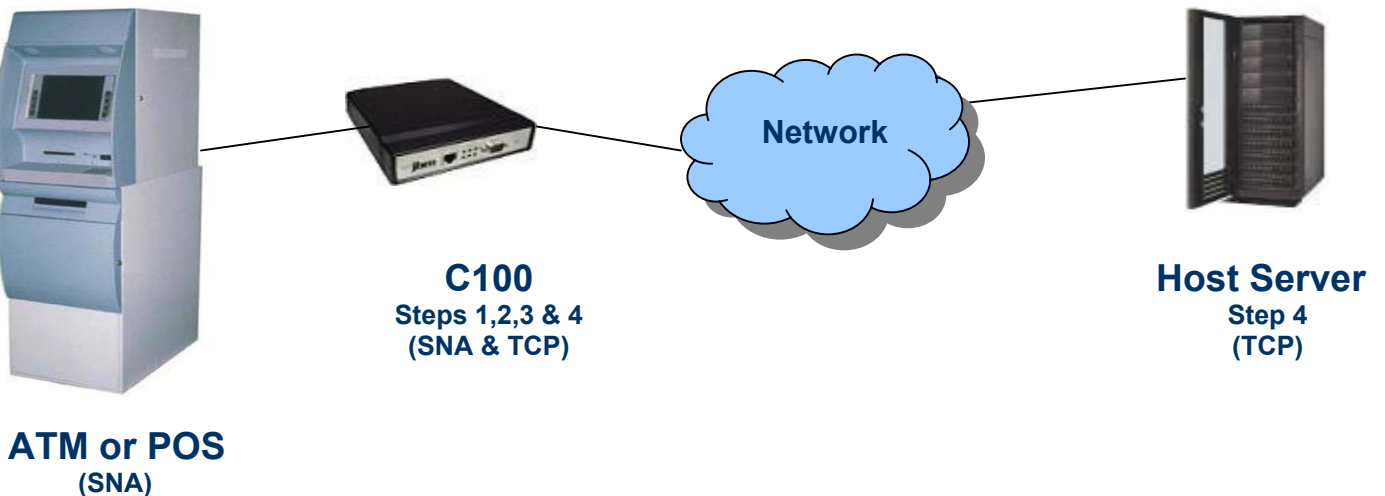
JBM Electronics provides a free configuration service for a sixty-day period, which starts as soon as you contact us for support. We will use the site information that you provide to build a configuration file for the Gateway.

The worksheets list the required information to successfully configure the unit. Proper completion of the worksheet will help ensure a smooth installation.

Typical Terminals

This protocol provides a SNA Host Emulation, which is used to acquire data from attached terminals. SNA supports multipoint, polled addressing and requires each defined terminal to have a unique address. All program default options are shown in **bold blue text**.

SAMPLE Installation



Applicable Units

The SNA protocol can be transmitted using async or sync transmission. The different Gateways support either one or both methods. The Async transmission method is the most popular as it can use less expensive transmission facilities. Please verify that you have ordered the correct unit for your network transmission type.

Model	Async VISA	Sync VISA
C100 Series	All	C102
C200 Series	All	C202
C3000 Series	All	-
G500 Series	All	All
G700 Series	All	All
G800 Series	All	All
G900 Series	All	All
G1000 Series	All	All

Note: G1000 support is determined by the selected expansion Cards.

GENERAL INFORMATION

Contact Information

Company Name: _____

Your Name: _____

Phone Number: _____

Cell Number: _____

Fax Number: _____

Email Address: _____

Your Name: _____

Street Address 1: _____

Street Address 2: _____

City: _____

State / Province: _____

Zip Code: _____

Country: _____

Delivery Instructions

Please indicate how you would like the configuration file provided to you:

Email as an attachment: _____
Sent to your FTP Server: _____
Placed on our FTP Server: _____

Special Instructions: _____

(For example: rename the file from .zip to .zi)

Unit Identification

Model Number _____

Serial Number _____

Note: This information is on the serial number sticker on the bottom of the unit.

Special cables _____ (for example: G50 Adapter)

Worksheet Instructions

In the following sections, you will find many configuration questions. The majority of the questions are defaults (defaults are in [blue](#)) and can be safely ignored. They are listed for the few installations that have specially modified their networks.

Please review the options and make any changes on the form to match the information provided by your network administrator. If you have any questions, please contact us for guidance.

Once this document is complete, email it to support@jbmelectronics.com. You can also fax it to JBM at 314-426-0007. We will contact you if we have any questions. Once both companies are in agreement that the selected parameters are reasonable, we will build the configuration file and send it to you via the method selected below.

Step #1 – SNA Port Parameters

These parameters in this section are installation dependent and must match your specific device.

Port Mode (DCE, **DTE**): _____

This option determines if the Gateway DB-25 Connector will provide clocking to the attached device. If so, select DCE. If the attached device (for example: modem) will provide clocking to the port, select DTE. The port setting on the Gateway must be the opposite of the attached device. If a DTE interface is required, a special adapter (G50 or G1000 adapter, depending on which unit you have purchased) is required. This adapter is not used on the Gateway 1000-SPC.

Line Mode (FDX, **HDX**) _____

This option specifies whether a delay is required for the modems to turn around the transmit and receive lines. If you are not sure of the type of duplex used by your communications facilities, select HDX.

Line Type (**Leased**, Dial) _____

This option specifies how the connection to the SNA network handles Carrier Detect (RS-232C, pin 8). If the Option is LEASED, the port expects a leased modem connection (Carrier Detect is constant). If the option is DIAL, the port expects a dial modem connection (Carrier Detect is controlled by the modem). If the port provides clocking (DCE MODE), the port will handle Carrier Detect appropriately. If the port is connected through a Full-Duplex connection, then Constant Carrier Detect is assumed.

Line Encoding (**NRZ**, NRZI) _____

This option is a means of speeding communications by not returning the signal to zero at the end of each data sequence. The value selected for this field must match your network's settings.

Line Speed (115200, 76800, 57600, 38400,
28800, 25600, 19200, 14400, 9600, 7200, 4800,
3600, 2400, 1800, 1200, 300, 110) _____

Line speed is used by the port to provide clocking for the attached device if in DCE mode.

Maxout Count (1, **7**) _____

This options specifies the maximum number of BLUs the program will send to the host before turning the line around by setting the final bit. Maxout must be set to 1 when communicating with an AS/400.

Segment Size (**256**, 512) _____

This option determines the size of the segments used by the SNA network. The port will use 256 byte segments unless the default is changed. In that case, the port will use 512 byte segments.

Compression (Yes, **No**) _____

The port will accept compressed spaces and characters from the SNA network. When a compressed space or character is received, the port expands the spaces before transmitting the data to the BUS.

When this option is selected (YES) along with one of the 3770 RJE protocols, the port will compress consecutive spaces (or characters) before sending them to the network.

Delivery Confirmation (Enable, **Disable**) _____

Delivery Confirmation is an integrity option that specifies how the port will process blocks received from the network. If Disable is selected, the port will only accept one block at a time. The port will not accept another block until the first block has been transmitted to the other device (protocol) and the Gateway has received a protocol level acknowledgment for the block.

If Enable is selected, the Gateway will accept blocks until the buffer becomes filled. Once this occurs will the Gateway stop accepting blocks. As buffer space becomes available, the Gateway will accept further blocks. If this option is not implemented, the port will provide greater integrity and is more consistent with normal operation since the host is informed after each block is received. If this option is implemented, it is possible that data may be lost (for example: a power failure). However, since the Gateway will buffer several blocks, faster throughput may be achieved.

Remote Status (Sent, **Not Sent**) _____

This option determines whether the Gateway will notify the SNA network if the address to which the PU/LU is routing data becomes inactive.

Disconnect Action (LU Stat (0831),
Unbind Command, **Term Self**) _____

This option determines by which method the Gateway will notify the Host of a change in the Remote Status. The selected option should match your system's requirements. The Term Self option can be ignored when using SNA 3270.

Split Records (Yes, **No**) _____

This option is used to format data between frames in a multi-block message. If Yes is selected, the Gateway will determine whether the data destined for the final frame in a multi-block message has an Record Separator (RS) character. If an RS character is found, the Gateway will adjust the Request/Response Unit (RU) size to prevent the message from being split between frames.

Convert RS to CR (Yes, **No**) _____

This option determines whether the Gateway will convert any Record Separator (RS) characters to a Carriage Return (CR).

Character Conversion (Yes, **No**) _____

This option determines if the data will be converted from ASCII to EBCDIC. If this option is selected, then the data will be converted before it is sent to the destination.

Interface (**RS-232C**, V.35) _____

This field defines the electrical value used by the port. If V.35 is selected, a special adapter cable is required.

Timeout (0.5, **1.0**, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0) _____

This option determines how often the Gateway will send a Receive Ready signal via the serial port.

Independent DTR/DSR: **Yes**, No _____

This option determines whether the Gateway will provide or wait for Data Terminal Ready or Data Set Ready indications via the RS-232 port.

Clock Action (Same Direction, Data Direction) _____

Exchange ID _____

Step #2 - SNA Addresses

Define PU Addresses:

Option 1	Terminal Type:	3767 (LU 1), 3770 (LU 3), 3270 (LU 2), LU 0, 3770 (LU 1)
Option 2	Strip Format Commands:	Yes, No
Option 3	Headers:	Yes, No
Option 4	Independent Activation:	Yes, No
Option 5	Transmit Init-Self:	Yes, No
Option 6	Pass Through:	Yes, No
Option 7	Logon:	Enable, Disable
Option 8	Pass FM Header Medium:	Yes, No
Option 9	DLU Name Index:	_____ (Enter Decimal)
Option 10	Data Direction:	Bi-directional, Inbound, Outbound
Option 11	Mode Name Index:	_____ (Enter Decimal)

Attachable Protocol: None, Pure Visa, MPS Visa 1, MPS Visa 2, NCR ATM, Xmodem, BuyPass, NCR/NDP, SNTP/NTP v4

IP Address of the Gateway: _____

This must be a unique address for each device in the network and is configured using the niccfg script. At your root Linux prompt, type niccfg eth0 and follow the onscreen prompts to complete your IP address configuration. Refer to the unit's Operation Manual supplied on the installation CD or on our home page.

Destination IP Address and Port Number: _____

This refers to the IP Address and Port Number of the remote Server to which the unit will connect.

Headers: _____

The option determines if the Gateway adds special headers when communicating with TCP applications. This is needed if framing of the data is required and the TCP application supports the headers. The most commonly used header is JBM standard. This is a 2-byte length header in network order format that does not include itself in the length.

TCP Server Configuration

Independent Activation: (Yes, No) _____

This option determines if the Gateway will start the TCP link before the connection to the TC500 device(s) is established.

IP Address of the gateway: _____

This must be a unique address for each device in the network and is configured using the niccfg script. At your root Linux prompt, type niccfg eth0 and follow the onscreen prompts to complete your IP address configuration. Refer to the unit's Operation Manual supplied on the installation CD or on our home page.

Listening Port Number: _____

This is the Port Number at which we will be listening for a connection from a remote TCP client.

Allow Peer to Re-attach While Connected (Yes, No): _____

If a remote client's connection is interrupted and does not disconnect gracefully, this option can allow a new connection to override the previous (old) connection. This procedure will only work when a single connection is expected from a remote IP device. If multiple Clients attempt to establish connections from the same remote IP Address, this option must be set to No.

Fallback Routing

One of the major capabilities available with the Gateways is the ability to route the data to different destinations in the event that the primary connection is disrupted. The data can be routed to another destination on the same connection, or if an alternate path is available, through another media (for example: a POTS modem). If fallback is required, you can specify the destinations and when the fallback is attempted.

Because of the numerous options available with fallback routing, we recommend that you contact JBM support for guidance. We will prepare the appropriate worksheets after consultation and then add to the Gateway's configuration.

Summary

Once this document is complete, email it to support@jbmelectronics.com. You can also fax it to JBM at 314-426-0007. We will contact you if we have any questions. Once both companies are in agreement that the selected parameters are reasonable, we will build the configuration file and send it to you via the method selected above.