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Read Me First

- Welcome to the Gcom Customer Family
- GCOM Management Console Documentation
- GCOM Serial Number
- GCOM Support

Welcome to the GCOM Customer Family

Thank you for making the decision to buy a GCOM product. GCOM provides data communication solutions for a wide range of protocols. Over the last twenty years, GCOM products have established an excellent reputation as a provider of reliable and robust data communications solutions.

GCOM Management Console Documentation

This guide is intended to guide the first-time user through the setup, installation, and operation.

Related GCOM software manuals are available for reference and/or printing at http://www.gcom.com/home/support/documentation.html.

GCOM Serial Number

Please include your serial number (located on the GCOM adapter card, box label, and packing slip) on all email requests for support.

NOTE YOUR SERIAL NUMBER HERE TO EXPEDITE SUPPORT.

GCOM product serial #___________________
GCOM Support

- GCOM Support Offerings
- Contacting GCOM Support
- Submitting Diagnostic Information to GCOM Support

GCOM Support Offerings

Gcom, Inc. offers two kinds of support service:

- Service associated with your Software Support Agreement
- Additional paid professional services

Please be familiar with your company’s support standing with GCOM before contacting GCOM Support staff.

For more information, see http://www.gcom.com/support/index.html

Contacting GCOM Support

If you have questions or issues with the GCOM Management Console (GMC), contact GCOM Support via:

<table>
<thead>
<tr>
<th>Contact Vehicle</th>
<th>Contact Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browser using GCOM’s Customer Incident Tracking System (CITS) preferred method)</td>
<td>CITS combines the convenience of email and the web with the utility of a personal knowledge base. Email GCOM Sales at <a href="mailto:sales@gcom.com">sales@gcom.com</a> to learn how to get the greatest value out of GCOM’s online tracking system.</td>
</tr>
<tr>
<td></td>
<td>1. Log onto CITS at <a href="http://support.gcom.com/ev/ExtraView">http://support.gcom.com/ev/ExtraView</a></td>
</tr>
<tr>
<td></td>
<td>Note: To obtain a CITS login and password, email Gcom Support at <a href="mailto:support@gcom.com">support@gcom.com</a>.</td>
</tr>
<tr>
<td></td>
<td>2. Submit your question, issue, and/or request.</td>
</tr>
<tr>
<td></td>
<td>Gcom Support will respond within 24 hours.</td>
</tr>
<tr>
<td></td>
<td>Note: Your submitted incident is assigned an incident tracking number. Refer to this tracking number in all future correspondence regarding the incident.</td>
</tr>
</tbody>
</table>
Contact Vehicle | Contact Procedure
--- | ---
Email | Send your question, issue, and/or request to newticket@gcom.com.

**Note:** Use the above email address only to initially submit an incident to GCOM Support for investigation.

GCOM Support will:

- Enter your incident in CITS.
- Send you an email with the corresponding incident tracking number.
- Notify you of updates via email.

Send all subsequent emails related to this incident to support@gcom.com. Please refer to your assigned tracking number in the subject and include your serial number in the body of the message.

Telephone | Call 217-351-4241 and request Support.

**Submitting Diagnostic Information to GCOM Support**

GCOM Support may request a Gcom_dump file, which includes diagnostic information from the kernel, configuration files, and the system’s message file, to troubleshoot a submitted issue. To produce a Gcom_dump file, see Perform Dump.
The GCOM Management Console (GMC) is a browser-based, graphical user interface that shortens the learning curve and technical proficiency requirements for developing STREAMS-based communications applications.

Use it to:

- Build and configure communications streams by choosing and stacking graphical representations of STREAMS modules on top of each other. The GCOM Management Console then codes the necessary configuration file for you.
- Manage the resulting communications streams.

You can also use the GCOM Management Console to configure and manage various applications.

Click here for login information.
What is STREAMS?

Quoted, with the kind permission of Dennis Ritchie, from his 1984 paper titled *A Stream Input-Output System*, in which he outlines the STREAMS mechanism:

“A stream is a full-duplex connection between a user's process and a device or pseudo-device. It consists of several linearly connected processing modules, and is analogous to a Shell pipeline, except that data flows in both directions. The modules in a stream communicate almost exclusively by passing messages to their neighbors. Except for some conventional variables used for flow control, modules do not require access to the storage of their neighbors. Moreover, a module provides only one entry point to each neighbor, namely a routine that accepts messages. At the end of the stream closest to the process is a set of routines that provide the interface to the rest of the system. A user's write and I/O control requests are turned into messages sent to the stream, and read requests take data from the stream and pass it to the user. At the other end of the stream is a device driver module. Here, data arriving from the stream is sent to the device; characters and state transitions detected by the device are composed into messages and sent into the stream towards the user program. Intermediate modules process the messages in various ways. The two end modules in a stream become connected automatically when the device is opened; intermediate modules are attached dynamically by request of the user's program. Stream processing modules are symmetrical; their read and write interfaces are identical.”

In essence, STREAMS is a data communications subsystem with the following properties:

- Execution flow follows data flow.
- Protocol processing modules are passive, not active.
- Protocol modules implement most naturally as finite state machines.
- Protocol processing modules run to completion, eliminating the necessity for locks.
- Flow control mechanisms are built into the queue management.
• Arbitrary protocol stacks can be constructed with no foreknowledge on the part of the kernel.

Why Use the STREAMS Interface to Develop Communications Applications?

The introduction of the sockets interface was a boon to network programming. A substantial number of the TCP/IP applications in service today were designed to exploit the simplicity and ease of that interface.

The STREAMS interface represents a major rethinking of this popular interface. While STREAMS retains the simplicity of sockets, it also adds significant functionality. For developers of communications applications, it provides two distinct advantages:

• Reusable software – The STREAMS interface allows a communications application to be completely protocol independent. The communications application can select the appropriate protocol at runtime, making porting an easier task.

• Flexible programmers – When a developer learns to use a STREAMS interface, s/he knows how to use a data communications tool, not just a protocol-specific tool. Additionally, the simplicity of the STREAMS interface keeps the learning curve flat and short, giving developers maximum productivity with minimal effort.

The bottom line is enhanced productivity. By using STREAMS, development teams dramatically shorten development cycles, build products with more flexibility, and improve their ability to address different communications needs.

How does STREAMS Work?

While most explanations of STREAMS are fairly quiet about the internals, some understanding of the underlying architecture helps you better understand how to use the Gcom Management Console’s graphical user interface to build communications streams.

One of the most powerful paradigms in data communications is the Open Systems Interconnection model, an ISO recommendation for designing data communications software. This model provides seven distinct layers, each charged with a certain set of tasks.
The STREAMS facility locates the four lowest layers inside the operating system kernel, leaving the upper three layers for implementation by user applications.

A STREAMS processing module uses two interfaces: one for upstream traffic and one for downstream traffic. For example, X.25 packet level uses NPI for upstream traffic and DLPI for downstream traffic. STREAMS handles the data flow through these interfaces, connecting the processing modules into a single data stream with a stream head nestled against the file system and a physical device connecting the computer to a data line.

Typically, a STREAMS processing module uses a straightforward set of interfaces, communicating with a higher-layer module upstream and a lower-layer module downstream. However, the flexibility of the STREAMS layering system doesn’t mandate this. For example, using SNA over an X.25 network is accomplished with a module (QLLC) that uses an NPI interface downstream and a DLPI interface upstream.

This layering system impacts development two ways:

- Selecting the appropriate modules to build a protocol stack
- Selecting the appropriate interfaces to interact with them

Otherwise, the operation is mostly transparent, due in no small part to the stream head.

The stream head is the first stop for all outgoing data and the last stop for incoming data. It nestles next to the file system, translating the application’s manipulations of the STREAMS device’s file descriptor into messages for the various STREAMS modules.

**How Does the Gcom Management Console Implement STREAMS?**

Graphically!
By providing a variety of modules and module types – in graphical form – that you can literally stack on top of each other to build protocol stack configurations.

And by providing a graphical user interface – instead of a command line interface – to tailor the parameters for each module to meet your specific needs.

**Graphical Building Capability**

The GCOM Management Console provides modules – in graphical form – you can literally stack on top of each other to build protocol stack configurations.

For example: A standard protocol stack begins with a hardware driver module (perhaps a GCOM synchronous serial adapter) followed by communication protocol layer modules stacked atop the hardware driver module until the protocol stack topology is complete. Available choices for each protocol stack layer become refined or limited as you select each module.

The sample below shows a standard X.25 protocol stack:

- The base of the protocol stack is the hardware driver for the GCOM synchronous serial adapter.
- The next protocol stack layer is the X.25 Poll module. This module is required for most communications protocols and provides an interface that allows multiple protocols to be multiplexed or channeled through the same connection.
- The next protocol stack layer is the X.25 LAPB module. This layer provides the link layer for the X.25 communications line.
- At the top of the protocol stack is the X.25 Packet module representing the actual X.25 packet protocol.
In the more complex sample below, both the Polling module and one of the X.25 modules are multiplexing multiple streams of information:

- The Polling module accepts streams of data from the LAPB modules.
- One of the X.25 modules gathers data from an application above it and handles the routing of data downstream to the hardware.

**Graphical Tailoring Capability**

The GCOM Management Console automatically sets the parameters for each module in a protocol stack configuration for the most general environment for each protocol. You must edit these parameters to meet your specific needs.

The GCOM Management Console simplifies this editing task by providing a graphical user interface – instead of a command line interface – to tailor the parameters for each module to meet your specific needs.
What’s more, the GCOM Management Console first presents a subset of the module parameters you would most likely change, and provides the ability to show all parameters if you so desire.
Module Types

The GCOM Management Console offers the following module types for building configurations.

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Protocol</td>
<td>Accepts just one input and sends just one output. A standard protocol module communicates with both the layer above it and the layer below it.</td>
</tr>
<tr>
<td>Multiplexer</td>
<td>Accepts multiple streams of data from the layer above, consolidates the data, and then sends it to the layer below.</td>
</tr>
<tr>
<td>IOCTL Data</td>
<td>Houses information necessary to facilitate the connection between two protocols. IOCTL data is represented by smaller blocks within a protocol stack diagram.</td>
</tr>
<tr>
<td>Hardware</td>
<td>Represents an adapter card used to handle data streams. Each hardware type can handle different communications protocols.</td>
</tr>
</tbody>
</table>

Application

APPLICATIONS

Use the GCOM Management Console to configure three types of applications:

<table>
<thead>
<tr>
<th>Applications</th>
<th>Configure with</th>
<th>Manage with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications treated as communications modules, such as a TN 3270/5250 server</td>
<td>Configuration subsystem</td>
<td>Management subsystem</td>
</tr>
<tr>
<td>SyncSockets Daemon (SSD)</td>
<td>Applications subsystem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>See the SyncSockets User Guide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>for more information.</td>
<td></td>
</tr>
<tr>
<td>Instances of a program an administrator defines as safe to run</td>
<td>Applications subsystem</td>
<td></td>
</tr>
</tbody>
</table>
Getting Started

- GCOM Management Console Recommended Browsers
- GCOM Management Console Access
- Logging in to the GCOM Management Console
- Entering Data
- GCOM Management Console Window Layout

GCOM Management Console Recommended Browsers

Recommended browsers include:

- Internet Explorer
- Netscape Navigator
- Mozilla Firefox

GCOM Management Console Access

Accessing the GCOM Management Console requires a user ID and password created by your system administrator.

There are two kinds of user IDs:

<table>
<thead>
<tr>
<th>User ID</th>
<th>Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>A user with an Administrative ID can:</td>
</tr>
<tr>
<td></td>
<td>• Generate sample protocol stacks that contain all the information necessary to create a configuration file.</td>
</tr>
<tr>
<td></td>
<td>• Access Edit System functionality.</td>
</tr>
<tr>
<td>Normal</td>
<td>A user with a Normal ID has access to all GMC functionality except for generating sample protocol stacks and accessing Edit System functionality.</td>
</tr>
</tbody>
</table>

Logging in to the GCOM Management Console

The GCOM Management Console automatically:

- Designates an area of the server for storing files created and saved under your login and password.
- Sets a privacy view for the files created and saved under your login and password. In other words, only you and your administrator can see the files you create and save.

To log in:
1. Connect the unit on which your GCOM hardware and software are installed to an Ethernet network and note the IP address.

2. On a workstation connected to the same network, open a browser and log into the GCOM Management Console at http://ip_address_of_unit/gmchome/index.html (GPA 2G and GPK) or http://ip_address_of_unit/index.html (GPA 2G only) to display the Gcom Management Console window.

![Gcom Management Console](image)

3. Choose Enter the management console to display the Enter Network Password window.

![Enter Network Password](image)

4. In User Name (default = admin) and Password (default = gcom.com), supply the appropriate information, then choose OK to display the GMC Home Page.

Recommendation for administrators: Customize the User Name and Password for each of your users. See Edit System Subsystem for directions.

Note: Passwords are case sensitive. User Names are not case sensitive.
### Entering Data

The GCOM Management Console replaces the GCOM command line interface with point-and-click functionality, greatly reducing the possibility of protocol stack generation errors.

Specific fields are set with defaults whenever possible. As a rule, users have a high probability of successfully activating a communications stream by accepting the default values.

There are two levels of error detection in situations where users must enter data directly into the system:

- The system pre-screens user-entered data for basic field validation. For example, numeric values entered into text-only fields are found to be invalid.
- The system checks for valid values. If a value is found to be invalid, the system prompts you to enter a different value.

Essential parameters for setting up configurations are pre-selected by experienced GCOM developers. In most cases, the system offers the user a subset of the parameters associated with the various communications protocols. While all parameters may be accessed, the default parameter selection is sufficient for most users. Select any values without defaults only after consulting your administrator.
GCOM Management Console Window Layout

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context Sensitive Menu</td>
<td>Different options depending on the current activity.</td>
</tr>
<tr>
<td>Main Menu</td>
<td>GCOM Management Console subsystems</td>
</tr>
<tr>
<td>Quick Help</td>
<td>Helpful user information, such as:</td>
</tr>
<tr>
<td></td>
<td>• Server host name</td>
</tr>
<tr>
<td></td>
<td>• User login</td>
</tr>
<tr>
<td></td>
<td>• Protocol stack name</td>
</tr>
<tr>
<td>Selection Area</td>
<td>Variety of additional options denoted as icons, pictures, and/or text links</td>
</tr>
<tr>
<td>Subsystem Menu</td>
<td>Subsystem options</td>
</tr>
<tr>
<td>Work Area</td>
<td>Window area used to perform various functions, such as:</td>
</tr>
<tr>
<td></td>
<td>• Building protocol stack configurations</td>
</tr>
<tr>
<td></td>
<td>• Editing module parameters</td>
</tr>
<tr>
<td></td>
<td>• Answering questions</td>
</tr>
</tbody>
</table>
# GCOM Management Console Functions by Subsystem

The GCOM Management Console simplifies the configuration and management of communication streams by grouping tasks into subsystems:

<table>
<thead>
<tr>
<th>Subsystem</th>
<th>Usage</th>
</tr>
</thead>
</table>
| **Applications** | • Create and manage SyncSockets Daemon configuration files.  
                      • Select and customize command line parameters for applications your administrator has defined as safe to run from the GCOM Management Console. |
| **Configuration** | • Create and manage protocol stack configurations.  
                      • Configure individual protocol modules. |
| **Edit System** | Available to administrators only. |
| **Help**       | Display:  
                      • GCOM Management Console version information  
                      • (This) GCOM Management Console User Guide  
                      • The GCOM Documents Library |
| **Management** | • Assign configurations to ports.  
                      • Start configurations/ports.  
                      • Monitor running configurations.  
                      • Manage configuration file backups for diagnostic purposes. |
| **Troubleshoot** | • Detect all installed communication devices.  
                      • Run tests.  
                      • View log files.  
                      • Monitor running configurations.  
                      • Submit data directly to GCOM Support for diagnosis.  
                      • Back up and recover GCOM GPA information for disaster recovery purposes. |
Applications Subsystem

Use the Applications subsystem to:

- Create and manage SyncSockets Daemon configurations.
- Set up and manage application reference configurations that define applications your administrator has deemed safe to run from the GCOM Management Console.
- Select and customize command line parameters for those applications.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete App</td>
<td>Delete the active application configuration:</td>
</tr>
<tr>
<td></td>
<td>• From memory</td>
</tr>
<tr>
<td></td>
<td>• From the server</td>
</tr>
<tr>
<td>Delete SSD</td>
<td>Delete the active SyncSockets Daemon configuration:</td>
</tr>
<tr>
<td></td>
<td>• From memory</td>
</tr>
<tr>
<td></td>
<td>• From the server</td>
</tr>
<tr>
<td>Load App</td>
<td>Load an application configuration from the server.</td>
</tr>
<tr>
<td>Load SSD</td>
<td>Load a SyncSockets Daemon configuration from the server.</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **New App** | • Set up application reference configurations that define applications your administrator has deemed safe to run from the GCOM Management Console.  
• Select and customize command line parameters for those applications.                |
| **New SSD** | Create a SyncSockets Daemon configuration.                                                                                                   |
| **Save SSD As** | Rename a SyncSockets Daemon configuration.                                                                                                                                              |

**Delete App**

To delete the active application configuration from memory:

1. From the *Applications Subsystem Menu*, choose **Delete App** to display a *Confirmation* window.

   ![Confirmation Window](image1)

2. Choose **Cancel**.

**To delete the active application configuration from the server:**

1. From the *Applications Subsystem Menu*, choose **Delete App** to display a *Confirmation* window.

   ![Confirmation Window](image2)

2. Choose **OK**.

**Delete SSD**

To delete the active SyncSockets Daemon configuration from memory:

1. From the *Applications Subsystem Menu*, choose **Delete SSD** to display a *Confirmation* window.
2. Choose **Cancel**.

To delete the active SyncSockets Daemon configuration from the server:

1. From the *Applications Subsystem Menu*, choose **Delete SSD** to display a 
   *Confirmation* window.

2. Choose **OK**.

---

**Load App**

1. From the *Applications Subsystem Menu*, choose **Load App** to display in the 
   *Selection Area* a list of stored applications.
2. Choose an application configuration to:
   o Load the configuration into memory.
   o Display the configuration in the Work Area.

**Load SSD**

1. From the Applications Subsystem Menu, choose Load SSD to display in the Selection Area a list of stored SyncSockets Daemon configurations.
2. Choose a SyncSockets Daemon configuration to:
   o Load the configuration into memory.
   o Display the configuration in the Work Area.

New App

1. From the Applications Subsystem Menu, choose New App to display in the Selection Area the Select Reference App region.
**Note:** Contact your administrator if nothing is listed in the *Select Reference App* region.

2. Choose the appropriate reference app to:
   - Load the configuration into memory.
   - Display the configuration in the *Work Area*.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label</td>
<td>Name for a particular set of command line options</td>
</tr>
<tr>
<td>Application Reference</td>
<td>Application from which this application gets its data</td>
</tr>
<tr>
<td>Has Output</td>
<td>Option configured by your administrative that cannot be changed</td>
</tr>
<tr>
<td>Data will be captured to file</td>
<td>Option configured by your administrative that cannot be changed</td>
</tr>
<tr>
<td>Actual command</td>
<td>The full path and name of the application</td>
</tr>
<tr>
<td>Check the command line switches</td>
<td>Set of command line parameters available for this application</td>
</tr>
<tr>
<td></td>
<td>You may select none, some, or all of the parameters. Options followed by a field indicate an associated value. You are not required to fill in the associated value; however, some parameters will not work without the associated value.</td>
</tr>
</tbody>
</table>

3. Supply all appropriate information at the top of the *Application Configuration* region.

4. Select the checkbox for each command line parameter needed when this application runs.

5. Supply associated values as necessary.
6. From the Context Sensitive Menu, choose Save Application to store this application configuration on the server.

**New SSD**

1. From the Applications Subsystem Menu, choose New SSD to display in the Work Area the Enter Name region.

2. In Name and Description, supply the appropriate information.

**Notes:**

- Names may contain up to 255 characters, but no spaces.
- Descriptions are optional. They may contain up to 255 characters, including spaces.

3. From the Context Sensitive Menu, choose Set Values to display in the Work Area the base SyncSockets configuration.
<table>
<thead>
<tr>
<th>Region</th>
<th>Field/Button</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Global**    | **Max Connections**          | Maximum number of connections the SyncSockets Daemon will start  
To calculate: Max connections = Configured connections + Client connections                                                                 |
|               | **Reuse TCP Port**           | Yes or No  
**Note:** It can take up to two minutes to clear a closed TCP connection. If set to Yes, you can reuse the TCP connection before it has finished clearing.  
However, if you have security concerns, set to No. |
|               | **Remove field and button**  | Drop-down box of user-configured connections  
To remove a connection, choose it, then choose the **Remove** button.                                                                         |
|               | **New Connection buttons**   | Choose the appropriate button to create a corresponding block in the Connection Name region.                                                 |
| **Logging Options** | **Remove field and button** | Drop-down box of global/user-configured connections enabled for logging  
To disable logging for a connection, choose it, then choose the **Remove** button.                                                       |
<table>
<thead>
<tr>
<th>Region</th>
<th>Field/Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Log File</strong></td>
<td></td>
<td>Name of the file(s) to which global and connection log data is written</td>
</tr>
<tr>
<td></td>
<td><strong>Note</strong>: The global log file tracks SyncSockets Daemon activities. It tracks that a connection has occurred; however, it does not track connection exchanges. A connection log file tracks connection exchanges. <strong>Recommendation</strong>: Always enable global logging. Enable connection logs individually based on need.</td>
<td></td>
</tr>
<tr>
<td><strong>Logging Options</strong></td>
<td></td>
<td>To disable global/connection logging, set to 0.</td>
</tr>
<tr>
<td><strong>Log Size</strong></td>
<td></td>
<td>Maximum size of global/connection log file</td>
</tr>
<tr>
<td><strong>Connection Name</strong></td>
<td></td>
<td>Connection pathways created by the SyncSockets Daemon</td>
</tr>
<tr>
<td></td>
<td>Each Connection Name block in this region represents one communications link.</td>
<td></td>
</tr>
<tr>
<td><strong>Log</strong></td>
<td></td>
<td>Choose to enable logging on a connection-by-connection basis.</td>
</tr>
<tr>
<td><strong>Remaining fields</strong></td>
<td></td>
<td>Vary depending on connection type.</td>
</tr>
<tr>
<td></td>
<td><strong>Notes</strong>: For quick help, click on a parameter name displayed in <strong>cyan</strong>. For more substantial help, see the SyncSockets User Guide at <a href="http://www.gcom.com/home/support/documentation.html">http://www.gcom.com/home/support/documentation.html</a>.</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

- Begin with one communications channel: the GPI link, which you can configure to be a UDP or TCP connection.
- You must have at least one GPI connection for the SyncSockets Daemon to operate properly.
- You may have multiple GPI connections as long as they do not use the same Listen Port.
- Generally speaking, there is one communications path required for incoming GPI (TCP/IP or UDP) connections and one or more communications paths for legacy communications; however, multiple incoming GPI connections are valid.
- One legacy protocol is required for outgoing/incoming communications.
- You can configure one connection for each running protocol stack and each communications path through each protocol stack. For example, if you configure an X.25 protocol stack that contains four switched virtual circuits, four communications pathways are available for configuring a connection.
You can configure a name (a default name is provided) and enable logging for each connection. This name is important because it is the name used by client programs when trying to establish a communications pathway. Incoming requests coming through the GPI connection use these names to specify what legacy link to communicate with.

4. When you’re finished configuring this SyncSockets Daemon, from the Context Sensitive Menu, choose Save Config.

**Save SSD As**

To rename the active SyncSockets Daemon configuration in memory:

1. From the Applications Subsystem Menu, choose Save SSD As to display in the Work Area the Enter Name region.

2. In **Name** and **Description**, supply the appropriate information.

**Notes:**

- Names may contain up to 255 characters, but no spaces.
- Descriptions are optional. They may contain up to 255 characters, including spaces.

3. From the Context Sensitive Menu, choose Set Values to rename the SyncSockets Daemon configuration.

4. If desired, delete the original SyncSockets Daemon configuration from the server using the Delete SSD feature.
**Configuration Subsystem**

Use the Configuration subsystem to:

- Create and manage protocol stack configurations.
- Configure individual protocol modules.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delete Stack</strong></td>
<td>Delete the active protocol stack configuration:</td>
</tr>
<tr>
<td></td>
<td>• From memory</td>
</tr>
<tr>
<td></td>
<td>• From the server</td>
</tr>
<tr>
<td><strong>Load Stack</strong></td>
<td>Load a protocol stack configuration from the server.</td>
</tr>
<tr>
<td><strong>New Stack</strong></td>
<td>Create a protocol stack configuration.</td>
</tr>
<tr>
<td><strong>Save Stack</strong></td>
<td>Store information for the currently loaded protocol stack configuration on the server for later recall.</td>
</tr>
<tr>
<td><strong>Save Stack As</strong></td>
<td>Rename a protocol stack configuration.</td>
</tr>
<tr>
<td><strong>View Examples</strong></td>
<td>Create a protocol stack configuration by modifying a reference protocol stack configuration created by your administrator.</td>
</tr>
</tbody>
</table>
Delete Stack

To delete the active protocol stack configuration from memory:

1. From the Configuration Subsystem Menu, choose Delete Stack to display a Confirmation window.

2. Choose Cancel.

To delete the active protocol stack configuration from the server:

3. From the Configuration Subsystem Menu, choose Delete Stack to display a Confirmation window.

4. Choose OK.

Load Stack

1. From the Configuration Subsystem Menu, choose Load Stack to display in the Selection Area a list of stored protocol stack configurations.
2. Choose a protocol stack configuration to:
   - Load the protocol stack configuration into memory.
   - Display the protocol stack configuration name in the **Stacks Loaded** region beneath the **Configuration Subsystem Menu**.
   - Display the protocol stack configuration in the **Work Area**.
Notes:

- Protocol stack configuration names are displayed in cyan or yellow. Cyan names represent protocol stack configurations that are up-to-date on the server. Yellow names represent protocol stack configurations that have not yet been saved to the server.

- You may load multiple protocol stack configurations into memory. To switch among loaded protocol stack configurations, choose the appropriate protocol stack configuration in the **Stacks Loaded** region beneath the **Configuration Subsystem Menu**.

- The system displays a list of protocol stack configurations currently on the server in the **Stacks on Server** region beneath the **Configuration Subsystem Menu**. You may also load a protocol stack configuration by choosing a stack from this window.

- A protocol stack configuration may not appear in the **Stacks on Server** list depending on the resolution of your browser.

**New Stack**

1. From the **Configuration Subsystem Menu**, choose **New Stack** to display in the **Work Area** the **Enter Name** region.

   ![Configuration Subsystem Menu](image)

2. In **Name** and **Description**, supply the appropriate information.

   Notes:

   - Names may contain up to 255 characters, but no spaces.
- Descriptions are optional. They may contain up to 255 characters, including spaces.

3. From the **Context Sensitive Menu**, choose **Set Values** to display in the **Work Area** an empty protocol module.

See [Building, Configuring, and Running Communication Stream/General Instructions](#) for further directions.

### Save Stack

1. From the **Configuration Subsystem Menu**, choose **Save Stack** to display the following window:

![Save Stack Window](image)

2. Choose **OK**.

**Caution:** If you do not save a protocol stack configuration to the server, all work performed on the protocol stack configuration is lost when you exit the browser. At various times, the system forces an auto save to prevent loss of data that results from switching between various system functions. The system alerts you when it has performed an auto save.
Notes:

- Protocol stack configurations saved under your login are viewable only by you and your administrator.
- When you log in to the GCOM Management Console, you see only those protocol stack configurations saved on the server under your login name.

Save Stack As

To rename the active protocol stack configuration in memory:

1. From the Configuration Subsystem Menu, choose Save Stack As to display in the Work Area the Enter Name region.

2. In Name and Description, supply the appropriate information.

Notes:

- Names may contain up to 255 characters, but no spaces.
- Descriptions are optional. They may contain up to 255 characters, including spaces.

3. From the Context Sensitive Menu, choose Set Values to rename the protocol stack configuration.

4. If desired, delete the original protocol stack configuration from the server using the Delete Stack feature.
View Examples

1. From the Configuration Subsystem Menu, choose View Examples to display in the Selection Area the Select Stack region, which contains a list of all the reference protocol stack configurations created by your administrator.

2. Choose a protocol stack configuration from the Select Stack region to load a replica into memory for:
   - Viewing purposes
   - Modification purposes – A reference protocol stack configuration is a great base for creating a protocol stack configuration that addresses your specific needs.

Caution: Do not overwrite the reference protocol stack configuration created by your administrator. Use Save Stack As to save your finished protocol stack configuration under a different name.
Edit System Subsystem

The Edit System subsystem is reserved for use by administrators for system maintenance purposes.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Add App</strong></td>
<td>Manage the applications a user may run.</td>
</tr>
<tr>
<td><strong>Add User</strong></td>
<td>Add a new user ID to the system.</td>
</tr>
<tr>
<td>Edit Modules</td>
<td>Modify the data files used when configuring individual module parameters. The modules listed are those supported by GCOM STREAMS. <strong>Caution:</strong> Use only under the direction of GCOM Support.</td>
</tr>
<tr>
<td>Manage Users</td>
<td>• Add, change, delete, view, and archive all files associated with a user ID.</td>
</tr>
<tr>
<td></td>
<td>• Manage user passwords.</td>
</tr>
<tr>
<td>Open Debug</td>
<td>Open a secondary window GCOM Support uses to diagnose errors. <strong>Caution:</strong> Use only under the direction of GCOM Support.</td>
</tr>
</tbody>
</table>

**Add App**

**To add an application:**

1. From the *Edit Systems Subsystem Menu*, choose **Add App** to display:
- A list of currently defined applications in the **Selection Area**
- Base application definition information in the **Work Area**

<table>
<thead>
<tr>
<th>Region</th>
<th>Field/Button/Checkbox</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global Options</strong></td>
<td><strong>Command Label</strong></td>
<td>Descriptive name users see when choosing an application reference</td>
</tr>
<tr>
<td><strong>Command</strong></td>
<td></td>
<td>Full path and name of actual application</td>
</tr>
<tr>
<td><strong>Background App</strong></td>
<td></td>
<td>Choose if the application does not normally run in the background. <strong>Caution:</strong> This is mandatory. If not checked and the application does not place itself in the background by default, the system hangs when trying to start the application. Choosing this option for programs that background themselves <strong>should not</strong> cause any problems. <strong>Note:</strong> Cannot be changed by users.</td>
</tr>
<tr>
<td><strong>Has Output</strong></td>
<td></td>
<td>Choose if the application normally send output to the command line and you want to capture it. <strong>Note:</strong> Cannot be changed by users.</td>
</tr>
<tr>
<td><strong>Capture to File</strong></td>
<td></td>
<td>Choose if you want to capture application output. <strong>Note:</strong> Cannot be changed by users.</td>
</tr>
<tr>
<td>Region</td>
<td>Field/Button/Checkbox</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Edit Prefix</strong></td>
<td></td>
<td>Potential default prefixes for application command line parameters To choose a default prefix, choose the corresponding button.</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--</td>
<td></td>
</tr>
<tr>
<td></td>
<td>+</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>User 1</strong></td>
<td>To define up to three more potential default prefixes: Type the prefix in <strong>User 1</strong>, <strong>User 2</strong>, or <strong>User 3</strong>; then choose <strong>UPD</strong> directly below the User field.</td>
</tr>
<tr>
<td></td>
<td><strong>User 2</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>User 3</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>UPD</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Parameters</strong></td>
<td></td>
<td>Currently defined parameters for this application Choose a parameter to display its information in the <strong>Edit Parameter</strong> region</td>
</tr>
<tr>
<td><strong>Edit Parameter</strong></td>
<td><strong>Selected Prefix</strong></td>
<td>Default prefix for this parameter To select another default prefix, choose the corresponding button.</td>
</tr>
<tr>
<td><strong>Parameter</strong></td>
<td></td>
<td>Actual parameter</td>
</tr>
<tr>
<td><strong>Has additional parameter field</strong></td>
<td></td>
<td>Choose if this parameter requires a value to be supplied by users.</td>
</tr>
<tr>
<td><strong>Has additional parameter field with space</strong></td>
<td></td>
<td>Choose if this parameter requires a value (preceded by a space) to be supplied by users.</td>
</tr>
<tr>
<td><strong>Default to selected</strong></td>
<td></td>
<td>Choose if users normally use this parameter.</td>
</tr>
<tr>
<td><strong>Process Parameters</strong></td>
<td><strong>Accept</strong></td>
<td>Choose to accept the currently displayed parameter.</td>
</tr>
<tr>
<td><strong>Delete</strong></td>
<td><strong>Delete</strong></td>
<td>Choose to remove the currently displayed parameter.</td>
</tr>
</tbody>
</table>

2. Supply all appropriate information for the application and all its parameters.

3. From the Context Sensitive Menu, choose **Save Application**.

**To edit an existing application:**

1. From the *Edit Systems Subsystem Menu*, choose **Add App**.
2. From the *Selection Area*, choose the application.
3. Edit all appropriate information.
4. From the Context Sensitive Menu, choose **Save Application**.

**To delete an existing application:**

1. From the *Edit Systems Subsystem Menu*, choose **Add App**.
2. From the *Selection Area*, choose the application.
3. From the Context Sensitive Menu, choose **Delete Current**.

**Add User**

1. From the *Edit Systems Subsystem Menu*, choose **Add User**.
2. In **Name** and **Password**, supply the appropriate information, then choose **Run the Command**.

![Image of Gcom Management Console](image)

**Manage Users**

1. From the *Edit Systems Subsystem Menu*, choose **Manage Users** to display in the *Selection Area* a list of stored User IDs.
2. Choose a user ID to display the *Context Sensitive Menu.*
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Become User</td>
<td>Trigger a GCOM Management Console reload and logon as the chosen user. To return to Administrative User access, log back in.</td>
</tr>
</tbody>
</table>
| Remove User       | • Remove the chosen user’s account and password from the system.  
                    • Delete all user files and directories owned by the user.                                                                |
| View User’s Files | Display a list of all files created/owned by the chosen user.  
                    • To view file data: Choose the file, then from the **Context Sensitive Menu**, choose **View Data**.  
                    • To delete a file: Choose the file, then from the **Context Sensitive Menu**, choose **Delete**.  
                    • To return to the file list: From the **Context Sensitive Menu**, choose **Return** from the **Context Sensitive Menu**. |
| Archive User’s Files | Create and download a **.tar** archive of all files created/owned by the chosen user.                                                   |
| Change Password   | Modify the chosen user’s password.                                                                                                       |
## Help Subsystem

![Help Subsystem Image](image)

<table>
<thead>
<tr>
<th><strong>Function</strong></th>
<th><strong>Usage</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>About</td>
<td>Display GCOM Management Console version information.</td>
</tr>
<tr>
<td>Quick Help</td>
<td>Display local GCOM Management Console User Guide.</td>
</tr>
<tr>
<td>Topics</td>
<td>Display Internet-based GCOM Management Console User Guide.</td>
</tr>
</tbody>
</table>
Management Subsystem

The Management subsystem is the GCOM Management Console workhorse. Use it to:

- Assign protocol stack configurations to adapter card and Ethernet ports.
- Sequence application and SyncSockets Daemon configurations in the order you want them run.
- Run some or all configurations.
- Stop some or all configurations
- Monitor running configurations.
- Manage individual configuration files for diagnostic purposes.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Adapters** | • Associate protocol stack configurations with adapter card ports.  
• Run the configurations.  
• Monitor running configurations.  
• Stop running the configurations.  
• Disassociate protocol stack configurations from adapter card ports. |
### Function | Description
--- | ---
**Apps** | • Sequence application configurations in the order you want them run.  
• Run the configurations.  
• Monitor running configurations  
• Stop running the configurations.  
**Archives** | Manage individual protocol stack, SyncSockets Daemon, application reference, or generated configuration files for diagnostic purposes  
**LANs** | • Associate protocol stack configurations with LAN connections.  
• Run the configurations.  
• Monitor running configurations  
• Stop running the configurations.  
• Disassociate protocol stack configurations from LAN connections.  
**SSDs** | • Sequence SyncSockets Daemon configurations in the order you want them run.  
• Run the configurations.  
• Monitor running configurations  
• Stop running the configurations.

**Adapters**

Use the Adapters feature to:

- Associate protocol stack configurations with adapter card ports.  
- Run the configurations.  
- Monitor the running configurations.  
- Stop running the configurations.  
- Disassociate protocol stack configurations from adapter card ports.
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign Stack</td>
<td>Associate a protocol stack configuration with an adapter card port.</td>
</tr>
<tr>
<td>Start All Ports</td>
<td>Start all assigned configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
<tr>
<td>Start Port</td>
<td>Run a protocol stack configuration on an adapter card port.</td>
</tr>
<tr>
<td>Stop All Ports</td>
<td>Stop all running configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
<tr>
<td>Stop Port</td>
<td>Stop running a protocol stack configuration on an adapter card port.</td>
</tr>
<tr>
<td>Unassign Stack</td>
<td>Disassociate a protocol stack configuration from an adapter card port.</td>
</tr>
</tbody>
</table>

Assign Stack

1. From the Management Subsystem Menu, choose Adapters to display in the Selection Area a graphical representation of the ports to which protocol stack configurations are/can be assigned.
2. In the *Selection Area*, choose a port to populate the *Hardware Data* region in the *Work Area*.

3. From the *Context Sensitive Menu*, choose **Assign Stack** to display in the *Selection Area* a list of protocol stack configurations capable of using the chosen port.
Note: If the systems displays **No stacks created yet with that hardware**, you have not yet created a protocol stack that uses this adapter card.

4. In the **Selection Area**, choose a configuration to assign it to the port.
The following indicate the configuration is assigned to the port:

- The protocol stack name in **red** in the *Selection Area* and in the *Stack Assignment* region in the *Work Area*
- The presence of information in the *Stack Assignment* and *Stack Diagram* regions in the *Work Area*

**Start Port**

1. From the *Management Subsystem Menu*, choose **Adapters** to display in the *Selection Area* a graphical representation of the ports to which protocol stack configurations are/can be assigned.

2. In the *Selection Area*, choose a configuration to populate the *Stack Assignment*, *Hardware Data*, and *Stack Diagram* regions in the *Work Area*. 
3. From the Context Sensitive Menu, choose **Start Port** to run the configuration.

The following indicate the configuration is running:

- The protocol stack configuration name in **green** in the **Selection Area**
- The protocol stack configuration name in **tan** in the **Stack Assignment** region in the **Work Area**
The presence of information in the Basic Statistics region in the Work Area If some of these indicators fail to appear, choose Adapters to refresh your screen. 

**Note:** A configuration name in yellow indicates a configuration is assigned and running, but encountering problems.

**Stop Port**

1. From the Management Subsystem Menu, choose Adapters to display in the Selection Area a graphical representation of the ports to which protocol stack configurations are/can be assigned.

![Management Subsystem Menu](image)

**Notes:**

- A protocol stack configuration name in green in the Selection Area means the configuration is running.
- A protocol stack name in red in the Selection Area means the configuration is assigned to a port but not running.

2. In the Selection Area, choose a configuration port to populate the Stack Assignment, Hardware Data, Stack Diagram, and Basic Statistics regions in the Work Area.
3. From the Context Sensitive Menu, choose **Stop Port** to stop running the configuration.

The following indicate the configuration is no longer running:

- The protocol stack name in **red** in the *Selection Area* and in the *Stack Assignment* region in the *Work Area*
- The absence of information in the *Basic Statistics* region in the *Work Area*
If some of these indicators fail to appear, choose **Adapters** to refresh your screen.

**Unassign Stack**

1. From the *Management Subsystem Menu*, choose **Adapters** to display in the *Selection Area* a graphical representation of the ports to which protocol stack configurations are/can be assigned.

![GCOM Management Console](image)

**Notes:**

- A protocol stack configuration name in **green** in the *Selection Area* means the configuration is running.
- A protocol stack name in **red** in the *Selection Area* means the configuration is assigned to a port but not running.
- You need not stop a port before unassigning its protocol stack configuration – the system does this for you automatically.

2. In the *Selection Area*, choose a configuration to populate the *Stack Assignment*, *Hardware Data*, and *Stack Diagram* regions in the *Work Area*.
3. From the **Context Sensitive Menu**, choose **Unassign Port** to unassign the configuration from the port.

The following indicate the configuration is no longer assigned to the port:

- The absence of the protocol stack configuration name in the **Selection Area**
o The absence of information in the *Stack Assignment* and *Stack Diagram* regions in the *Work Area*

**Apps**

Use the Apps feature to:

- Sequence application configurations in the order you want them run.
- Run the configurations.
- Monitor running configurations.
- Stop running the configurations.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assign Application</strong></td>
<td>Associate an application configuration with a run order placement. The order in which you assign application configurations controls the order in which the configurations run.</td>
</tr>
<tr>
<td><strong>Start All Ports</strong></td>
<td>Start all assigned configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
<tr>
<td><strong>Start Application</strong></td>
<td>Run an application configuration.</td>
</tr>
<tr>
<td><strong>Stop All Ports</strong></td>
<td>Stop all running configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
</tbody>
</table>
### Function Description

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stop Application</strong></td>
<td>Stop running an application configuration.</td>
</tr>
<tr>
<td><strong>Unassign Application</strong></td>
<td>Disassociate an application configuration from a run order placement.</td>
</tr>
</tbody>
</table>

### Assign Application

The order in which you assign application configurations controls the order in which the configurations run.

1. From the *Management Subsystem Menu*, choose **Apps** to display in the *Selection Area* a graphical representation of the run order placements for application configurations.

   ![Gcom Management Console](image)

2. In the *Selection Area*, choose a run order placement.
3. From the Context Sensitive Menu, choose **Assign Application** to display in the Selection Area a list of application configurations.

4. In the Selection Area, choose an application configuration to associate it with the chosen run order placement.
The following indicate the application configuration is assigned to a run order placement:

- The application configuration name in red in the Selection Area and in the Stack Assignment region in the Work Area
- The presence of the next potential run order placement in the Selection Area

**Start Application**

1. From the Management Subsystem Menu, choose Apps to display in the Selection Area a graphical representation of the run order placements for application configurations.
2. In the Selection Area, choose a configuration.

3. From the Context Sensitive Menu, choose **Start Application** to run the configuration.
The following indicate the configuration is running:

- The application configuration name in green in the Selection Area
- The application configuration name in tan in the Stack Assignment region in the Work Area
- The presence of ID information in the Process Information region in the Work Area

If some of these indicators fail to appear, choose Apps to refresh your screen.

**Note:** A configuration name in yellow indicates a configuration is assigned and running, but encountering problems.

**Stop Application**

1. From the Management Subsystem Menu, choose Apps to display in the Selection Area a graphical representation of the run order placements for application configurations.
2. In the **Selection Area**, choose a configuration.

3. From the **Context Sensitive Menu**, choose **Stop Application** to stop running the configuration.
The following indicate the configuration is no longer running:

- The application configuration name in **red** in the Selection Area and in the Stack Assignment region in the Work Area.
- The absence of ID information in the Process Information region in the Work Area.

If some of these indicators fail to appear, choose Apps to refresh your screen.

**Unassign Application**

**Note:** You must stop an application configuration before you can disassociate it from its run order placement.

1. From the Management Subsystem Menu, choose Apps to display in the Selection Area a graphical representation of the run order placements for application configurations.
2. In the **Selection Area**, choose a configuration.

3. From the **Context Sensitive Menu**, choose **Unassign Application** to disassociate the configuration from the run order placement.
The following indicate the configuration is no longer associated with the run order placement:

- The absence of the application configuration name in the Selection Area
- The absence of information in the Stack Assignment region in the Work Area

**Archives**

The GCOM Management Console offers several file management functions:

<table>
<thead>
<tr>
<th>Function</th>
<th>Manages</th>
<th>Used For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archives</td>
<td>Individual protocol stack, SyncSockets Daemon, application reference, or generated configuration files</td>
<td>Diagnostic purposes on all Gcom products that use the GCOM Management Console</td>
</tr>
<tr>
<td><strong>Config Rescue</strong></td>
<td>All protocol stack, SyncSockets Daemon, application reference, and generated configuration files simultaneously</td>
<td>Disaster recovery purposes on all GCOM products that use the GCOM Management Console</td>
</tr>
<tr>
<td>Network Rescue</td>
<td>Network configuration information, such as MAC and IP addresses, for a GCOM GPA product</td>
<td>Disaster recovery purposes on GCOM GPA products</td>
</tr>
</tbody>
</table>

*Note: This capability has moved to Gcom’s GPA Control Center (GCC) software.*
Use the Archive function to:

- Create a backup file containing a:
  - Protocol stack configuration(s)
  - SyncSockets Daemon configuration(s)
  - Application reference configuration(s)
  - Generated configuration file(s)
- Download the backup file to a workstation.
- Upload the backup file to/install the backup file on a GCOM product.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Create** | Create a backup file containing a:  
  - Protocol stack configuration(s)  
  - SyncSockets Daemon configuration(s)  
  - Application reference configuration(s)  
  - Generated configuration file(s) |
| **Download** | Copy a backup file from a GCOM product to a workstation. |
| **Install** | Install an uploaded backup file. |
### Archivable File Types

<table>
<thead>
<tr>
<th>File Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacks</td>
<td>Configurations you manage using the Configuration and Applications subsystems. Think of these configurations as intermediate files that are portable between GCOM Management Consoles because they do not contain final hardware-specific information. Possible usage: Send an archived stack file to GCOM Support for diagnostic purposes. GCOM Support can upload and install the archive, and troubleshoot the configuration on their workstations, even if those workstations don't match your workstation.</td>
</tr>
<tr>
<td>Applications</td>
<td></td>
</tr>
<tr>
<td>SyncSockets</td>
<td></td>
</tr>
<tr>
<td>Generated_Configs</td>
<td>A configuration file generated by the GCOM Management Console when you start a port. Think of these configurations final files that are not portable between GCOM Management Consoles because they contain hardware-specific information, such as the port to which you’ve assigned the configuration. <strong>Caution:</strong> Use only to back up a configuration file you plan to transfer to a legacy GCOM device that lacks GCOM Management Console software.</td>
</tr>
</tbody>
</table>

### Create (Archive)

1. From the *Management Subsystem Menu*, choose **Archives** to display the *Context Sensitive Menu*. 

---

**Upload**

Copy a backup file from a workstation to a GCOM product.
2. From the **Context Sensitive Menu**, choose **Create** to display in the **Work Area** a file selection region.

3. Choose an archive file name. (If you do not choose a file name, the system names your archive `archive.n.tar`, where `n` is the next sequential archive file number.)

4. Choose the files to include in this archive. You may mix and match **archivable file types**.
5. From the Context Sensitive Menu, choose Archive Files to:
   o Create the archive.
   o Display the Click the link to download region in the Work Area.

6. See Download/Step 3 for further directions.

**Download (Archive)**

1. From the Management Subsystem Menu, choose Archives to display the Context Sensitive Menu.

2. From the Context Sensitive Menu, choose Download to display archives available for download in the Click the link to download region in the Work Area.
3. Choose an archive to display the *File Download* window.

4. Choose **Save** and follow standard operating system procedures to copy the backup file to a workstation location.

**Install (Archive)**

1. From the *Management Subsystem Menu*, choose **Archives** to display the *Context Sensitive Menu*. 
2. From the Context Sensitive Menu, choose **Install** to display all files uploaded to your designated area of the server in the *Select File to Install* region in the *Work Area*.

3. Choose a file to install it and display the following window:
Upload (Archive)

1. From the Management Subsystem Menu, choose Archives to display the Context Sensitive Menu.

2. From the Context Sensitive Menu, choose Upload to display a file browse region in the Work Area.
3. Choose **Browse** and follow standard operating system procedures to choose a file.

4. From the *Context Sensitive Menu*, choose **Run the Command** to copy the file to your designated area on the server.

**LANs**

Use the LANs feature to:

- Associate protocol stack configurations with LAN connections.
- Run the configurations in a specific order.
- Monitor the running configurations.
- Stop running the configurations.
- Disassociate protocol stack configurations from LAN connections.
### Assign Stack (LANs)

The order in which you assign protocol stack configurations to LAN connections controls the order in which the configurations run.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assign Stack</strong></td>
<td>Associate a protocol stack configuration with a LAN connection. The order in which you assign protocol stack configurations to LAN connections controls the order in which they run.</td>
</tr>
<tr>
<td><strong>Start All Ports</strong></td>
<td>Start all assigned configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
<tr>
<td><strong>Start Port</strong></td>
<td>Run a protocol stack configuration on a LAN connection.</td>
</tr>
<tr>
<td><strong>Stop All Ports</strong></td>
<td>Stop all running configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
<tr>
<td><strong>Stop Port</strong></td>
<td>Stop running a protocol stack configuration on a LAN connection.</td>
</tr>
<tr>
<td><strong>Unassign Stack</strong></td>
<td>Disassociate a protocol stack configuration from a LAN connection.</td>
</tr>
</tbody>
</table>
1. From the Management Subsystem Menu, choose **LANs** to display in the Selection Area a graphical representation of the first (and then successive) LAN connections to which protocol stack configurations are/can be assigned.

2. In the Selection Area, choose a LAN connection to populate the **Hardware Data** region in the Work Area.
3. From the *Context Sensitive Menu*, choose **Assign Stack** to display in the *Selection Area* a list of protocol stack configurations capable of using the chosen LAN connection.

4. In the *Selection Area*, choose a protocol stack configuration to associate it with the chosen LAN connection.

---

![Image of the GCOM Management Console showing Assign Stack selection and protocol stack configurations.](image-url)
The following indicate the configuration is assigned to the LAN connection:

- The protocol stack name in **red** in the **Selection Area** and in the **Stack Assignment** region in the **Work Area**
- The presence of the next potential LAN connection in the **Selection Area**
- The presence of information in the **Stack Assignment** and **Stack Diagram** regions in the **Work Area**

**Start Port (LANs)**

1. From the *Management Subsystem Menu*, choose **LANs** to display in the **Selection Area** a graphical representation of the first (and then successive) LAN connections to which protocol stack configurations are/can be assigned.

2. In the **Selection Area**, choose a configuration to populate the **Stack Assignment**, **Hardware Data**, and **Stack Diagram** regions in the **Work Area**.
3. From the Context Sensitive Menu, choose Start Port to run the configuration.

The following indicate the configuration is running:

- The protocol stack configuration name in **green** in the Selection Area
- The protocol stack configuration name in **tan** in the Stack Assignment region in the Work Area
- The presence of information in the Basic Statistics region in the Work Area
If some of these indicators fail to appear, choose **LANs** to refresh your screen.

**Note:** A configuration name in **yellow** indicates a configuration is assigned and running, but encountering problems.

**Stop Port (LANs)**

1. From the *Management Subsystem Menu*, choose **LANs** to display in the *Selection Area* a graphical representation of the first (and then successive) LAN connections to which protocol stack configurations are/can be assigned.

   ![Management Subsystem Menu](image)

2. In the *Selection Area*, choose a configuration to populate the *Stack Assignment*, *Hardware Data*, *Stack Diagram*, and *Basic Statistics* regions in the *Work Area*.
3. From the Context Sensitive Menu, choose **Stop Port** to stop running the configuration.

The following indicate the configuration is no longer running:

- The protocol stack name in **red** in the *Selection Area* and in the *Stack Assignment* region in the *Work Area*
- The absence of information in the *Basic Statistics* region in the *Work Area*
If some of these indicators fail to appear, choose **LANs** to refresh your screen.

**Unassign Stack (LANs)**

1. From the *Management Subsystem Menu*, choose **LANs** to display in the *Selection Area* a graphical representation of the first (and then successive) LAN connections to which protocol stack configurations are/can be assigned.

2. In the *Selection Area*, choose a configuration to populate the *Stack Assignment*, *Hardware Data*, and *Stack Diagram* regions in the *Work Area*. 
3. From the **Context Sensitive Menu**, choose **Unassign Stack** to unassign the configuration from the LAN connection.

The following indicate the configuration is no longer assigned the LAN connection:

- The absence of the protocol stack configuration name in the **Selection Area**
- The absence of information in the **Stack Assignment** and **Stack Diagram** regions in the **Work Area**
SSDs
Use the SSDs feature to:

- Identify the order in which you want SyncSockets Daemon configurations to run.
- Run the configurations.
- Monitor running configurations.
- Stop running the configurations.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign SSD</td>
<td>Associate a SyncSockets Daemon configuration with a run order placement. The order in which you assign SyncSockets Daemon configurations controls the order in which the configurations run.</td>
</tr>
<tr>
<td>Start All Ports</td>
<td>Start all assigned configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
<tr>
<td>Start SSD</td>
<td>Run a SyncSockets Daemon configuration.</td>
</tr>
<tr>
<td>Stop All Ports</td>
<td>Stop all running configurations (protocol stack, application, and SyncSockets Daemons).</td>
</tr>
<tr>
<td>Stop SSD</td>
<td>Stop running a SyncSockets Daemon configuration.</td>
</tr>
</tbody>
</table>
Assign SSD

The order in which you assign SyncSockets Daemon configurations controls the order in which the configurations run.

1. From the Management Subsystem Menu, choose SSDs to display in the Selection Area a graphical representation of the first (and successive) run order placements for SyncSockets Daemon configurations.

2. In the Selection Area, choose a run order placement.
3. From the Context Sensitive Menu, choose **Assign SSD** to display in the Selection Area a list of SyncSockets Daemon configurations.

4. In the Selection Area, choose a SyncSockets Daemon configuration to associate it with the chosen run order placement.
The following indicate the SyncSockets Daemon configuration is assigned to a run order placement:

- The SyncSockets Daemon configuration name in red in the Selection Area and in the Stack Assignment region in the Work Area
- The presence of the next potential run order placement in the Selection Area

**Start SSD**

1. From the Management Subsystem Menu, choose SSDs to display in the Selection Area a graphical representation of the first (and successive) run order placements for SyncSockets Daemon configurations.
2. In the **Selection Area**, choose a configuration.

3. From the **Context Sensitive Menu**, choose **Start SSD** to run the configuration.
The following indicate the configuration is running:

- The SyncSockets Daemon configuration name in green in the Selection Area
- The SyncSockets Daemon configuration name in tan in the Stack Assignment region in the Work Area
- The presence of ID information in the Process Information region in the Work Area

If some of these indicators fail to appear, choose SSDs to refresh your screen.

**Note:** A configuration name in yellow indicates a configuration is assigned and running, but encountering problems.

**Stop SSD**

1. From the Management Subsystem Menu, choose SSDs to display in the Selection Area a graphical representation of the first (and successive) run order placements for SyncSockets Daemon configurations.
2. In the **Selection Area**, choose a configuration.

3. From the **Context Sensitive Menu**, choose **Stop SSD** to stop running the configuration.
The following indicate the configuration is no longer running:

- The SyncSockets Daemon configuration name in red in the Selection Area and in the Stack Assignment region in the Work Area.
- The absence of ID information in the Process Information region in the Work Area.

If some of these indicators fail to appear, choose SSDs to refresh your screen.

**Unassign SSD**

**Note:** You must stop a SyncSockets Daemon configuration before you can disassociate it from its run order placement.

1. From the Management Subsystem Menu, choose SSDs to display in the Selection Area a graphical representation of the first (and successive) run order placements for SyncSockets Daemon configurations.
2. In the Selection Area, choose a configuration.

3. From the Context Sensitive Menu, choose Unassign SSD to disassociate the configuration from the run order placement.
The following indicate the configuration is no longer associated with the run order placement:

- The absence of the SyncSockets Daemon configuration name in the Selection Area
- The absence of information in the Stack Assignment region in the Work Area

**Start All Ports**

1. From the *Management Subsystem Menu*, choose **Adapters, LANs, Apps, or SSDs**.
2. In the **Selection Area**, choose any configuration.

3. From the **Context Sensitive Menu**, choose **Start All Ports** to run all configurations.
The following indicate configurations are running:

- The configuration name in **green** in the **Selection Area**
- The configuration name in **tan** in the **Stack Assignment** region in the **Work Area**
- The presence of information on the right side of the **Work Area**

If some of these indicators fail to appear, choose **Adapters**, **LANs**, **Apps**, or **SSDs** to refresh your screen.

**Note:** A configuration name in **yellow** indicates a configuration is assigned and running, but encountering problems.

### Stop All Ports

1. From the **Management Subsystem Menu**, choose **Adapters**, **LANs**, **Apps**, or **SSDs**.
2. In the Selection Area, choose any configuration.

3. From the Context Sensitive Menu, choose Stop All Ports to stop running all configurations.
The following indicate configurations are no longer running:

- The configuration name in red in the Selection Area and in the Stack Assignment region in the Work Area
- The absence of information on the right side of the Work Area

If some of these indicators fail to appear, choose Adapters, LANs, Apps, or SSDs to refresh your screen.
Troubleshoot Subsystem

Use the Troubleshoot subsystem to:

- Detect all installed communication devices.
- Run tests.
- View log files and traces.
- Monitor running configurations.
- Submit data directly to GCOM Support for diagnosis.
- Back up and recover GCOM GPA information for disaster recovery purposes.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Logs</td>
<td>Display log files to send to GCOM Support.</td>
</tr>
<tr>
<td>Access Tracing</td>
<td>Perform traces on different layers of GCOM communications streams to send to GCOM Support.</td>
</tr>
<tr>
<td>All Statistics</td>
<td>Display raw STREAMS statistics for the CDI, DLPI, NPI, and IOCTL (if applicable) layers.</td>
</tr>
<tr>
<td>Config Rescue</td>
<td>Manage all protocol stack, SyncSockets Daemon, application reference, and generated configuration files simultaneously for disaster recovery purposes.</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| **Hardware Data** | Query the server to detect all installed communications devices.  
Run this command if:  
• This is the first time the GCOM Management Console has been used.  
• You just added new hardware to your system.  
• You just installed a new version of GCOM Management Console software. |
| **Network Rescue**| Manage network configuration information, such as MAC and IP addresses, for disaster recovery purposes on a GCOM GPA product.  
**Note:** This capability has moved to GCOM’s GPA Control Center (GCC) software. |
| **Perform Dump**  | Gather diagnostic information from the kernel, configuration files, and the system’s message file to send to GCOM Support.                   |
| **Run Tests**     | Perform various startup tests to verify the proper installation of GCOM hardware and software before you try to integrate your application.  
You may use the:  
• GCOM Management Console to run most of these tests  
• Command line interface to run all these tests |
| **System Rescue** | Manage all information needed to recreate and operate a failed GCOM GPA product.                                                            |

**Access Logs**

1. From the Troubleshoot Subsystem Menu, choose **Access Logs** to display in the Work Area all available log files.
2. Choose a log file, then choose **Run the Command** to display a form that:

o Confirms the command.

o Requests destination information for support purposes.

  The default destination is **support@gcom.com**. If your server does not have a route to the external Internet, you may cut and past the diagnostic information into an email and send it to **support@gcom.com**.

o Shows the requested diagnostic information.

o Sends the diagnostic information to the chosen destination.
3. Supply the appropriate information, then scroll to the bottom of the form.

4. Choose **Submit Query** to send this diagnostic information to the chosen destination.
Access Tracing

1. From the Troubleshoot Subsystem Menu, choose **Access Tracing** to display in the Work Area all available STREAMS layers.

2. Choose a layer, then choose **Run the Command** to display a form that:
   - Confirms the command.
Requests destination information for support purposes.

The default destination is `support@gcom.com`. If your server does not have a route to the external Internet, you may cut and paste the diagnostic information into an email and send it to `support@gcom.com`.

Shows the requested diagnostic information.

Sends the diagnostic information to the chosen destination.

3. Supply the appropriate information, then scroll to the bottom of the form.
4. Choose Submit Query to send this diagnostic information to the chosen destination.

All Statistics

From the Troubleshoot Subsystem Menu, choose All Statistics to display raw STREAMS statistics for the CDI, DLPI, NPI, and IOCTL (if applicable) layers. This information is useful for:

- Displaying trends
• Gathering reference information while protocol stack configurations are running (particularly Frames In and Frames Out)
• Displaying the setup of X.25 routing tables

For example: If your server has two four-port adapter cards, All Statistics shows statistics for:

• Eight CDI UPAs
• One DLPI UPA (LAPB protocol)
• One NPI UPA entry (X.25 Packet)
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPA</td>
<td>Upper Point of Attachment (to the next higher layer)</td>
</tr>
<tr>
<td>LPA</td>
<td>Lower Point of Attachment (to the next lower layer)</td>
</tr>
</tbody>
</table>
| CDI  | Communications Device Interface  
      | All Statistics shows as many CDI UPAs as the server has ports. |
| DLPI | Data Link Provider Interface  
      | All Statistics shows the currently running DLPI entry. |
| NPI  | Transport Layer Interface  
      | All Statistics shows the currently running DLPI entry. |

**Config Rescue**

The GCOM Management Console offers several file management functions:

<table>
<thead>
<tr>
<th>Function</th>
<th>Manages</th>
<th>Used For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archives</td>
<td>Individual protocol stack, SyncSockets Daemon, application reference, or generated configuration files</td>
<td>Diagnostic purposes on all Gcom products that use the GCOM Management Console</td>
</tr>
<tr>
<td>Config Rescue</td>
<td>All protocol stack, SyncSockets Daemon, application reference, and generated configuration files simultaneously</td>
<td>Disaster recovery purposes on all GCOM products that use the GCOM Management Console</td>
</tr>
<tr>
<td>Network Rescue</td>
<td>Network configuration information, such as MAC and IP addresses, for a GCOM GPA product</td>
<td>Disaster recovery purposes on GCOM GPA products</td>
</tr>
</tbody>
</table>

*Note: This capability has moved to Gcom’s GPA Control Center (GCC) software.*

| System Rescue  | All information needed to recreate and operate a GCOM GPA product | Disaster recovery purposes on GCOM GPA products |

Use the Config Rescue feature to:

- Create a backup file containing all protocol stack, SyncSockets Daemon, and application reference configuration files.
- Download the backup file to a workstation.
- Upload the backup file to/install the backup file on a GCOM product.
### Create Config Rescue

1. From the *Trouble shoot Menu*, choose **Config Rescue** to display the *Context Sensitive Menu*.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Create Config Rescue</strong></td>
<td>Create a backup file containing all configuration files and download it to a workstation.</td>
</tr>
<tr>
<td><strong>Download Config Rescue</strong></td>
<td>Copy most recent backup file from a GCOM product to a workstation.</td>
</tr>
<tr>
<td><strong>Install Config Rescue</strong></td>
<td>Install an uploaded backup file.</td>
</tr>
<tr>
<td><strong>Upload Config Rescue</strong></td>
<td>Copy a backup file from a workstation to a GCOM product.</td>
</tr>
</tbody>
</table>
2. From the Context Sensitive Menu, choose **Create Config Rescue** to create a backup file containing all configuration files and display the **Configuration Data** link in the **Work Area**.

3. See [Download Config Rescue](#)/Step 3 for further directions.
Download Config Rescue

1. From the Troubleshoot Subsystem Menu, choose **Config Rescue** to display the Context Sensitive Menu.

2. From the Context Sensitive Menu, choose **Download Config Rescue** to display a Configuration Data link in the Work Area to most recent backup file.

3. Choose the Configuration Data link to open the File Download window.
4. Choose **Save** and follow standard operating system procedures to copy the backup file to a workstation location.

**Install Config Rescue**

1. From the **Troubleshoot Subsystem Menu**, choose **Config Rescue** to display the **Context Sensitive Menu**.

2. From the **Context Sensitive Menu**, choose **Install Config Rescue** to install an uploaded backup file (or most recent backup file if you do not upload a backup file). When installation is complete, the system displays the following window.
Upload Config Rescue

1. From the *Troubleshoot Subsystem Menu*, choose **Config Rescue** to display the *Context Sensitive Menu*.

2. From the *Context Sensitive Menu*, choose **Upload Config Rescue** to display a file browse region in the *Work Area*.
3. Choose Browse and follow standard operating system procedures to choose a backup file containing configuration file information.

4. From the Context Sensitive Menu, choose Run the Command to copy the file to the GCOM product.

**Hardware Data**

Run this command if:

- This is the first time the GCOM Management Console has been used.
- You just added new hardware to your system.
- You just installed a new version of GCOM Management Console software.

From the Troubleshoot Subsystem Menu, choose Hardware Data to scan the system and display a graphical list of detected communications devices.
Perform Dump

1. From the Troubleshoot Subsystem Menu, choose Perform Dump.

2. If desired, click the checkbox to exclude log files from the dump. Then choose Run the Command to display a form that:
   - Confirms the command.
Troubleshoot Subsystem

- Requests destination information for support purposes.
  
  The default destination is **support@gcom.com**. If your server does not have a route to the external Internet, you may cut and past the diagnostic information into an email and send it to **support@gcom.com**.

- Shows the requested diagnostic information.

- Sends the diagnostic information to the chosen destination.

3. Supply the appropriate information, then scroll to the bottom of the form.
4. Choose **Submit Query** to send this diagnostic information to the chosen destination.

---

**Run Tests Using the GCom Management Console**

1. From the *Troubleshoot Subsystem Menu*, choose **Run Tests** to display in the *Work Area* the *Select Protocol/Select Test* window:
2. Choose a protocol and test (in-memory, on-chip, or back-to-back), then choose **Run the Command** to run the chosen test.

3. Wait until the test is complete.

**In-memory Test**

The in-memory test:

- Loads the protocol software into memory.
- Sends data to a logical port that loops the data back within the memory of the computer.

This verifies the software is installed properly and can manipulate data without hardware interaction.

**Note:** This test does not verify proper installation of the adapter.
Synchronous Serial Adapter/SDLC Protocol – Sample Results

Protocol: sdlc Test: inmem

Two in memory loopback data tests will be run sequentially.
Each test exchanges 10000 messages over the loopback mechanism.

The first test uses 128 byte messages, and will last about 20 seconds.
The second test uses 1 byte messages, and will last about 18 seconds.
Time required for these tests is solely dependent on the CPU speed.

You may want to start this test in background, and occasionally type Gcom_dlpi -U

Starting dlpi tst at Mon Oct 10 10:34:27 2005
Test 1 Connection established: lpa 1 bind 1 pid 4718
Data test 1 lasted less than 1 second
Test 1 send 1000 messages 128000 bytes
Test 1 rcvd 1000 messages 128000 bytes

Starting dlpi tst at Mon Oct 10 10:34:27 2005
Test 1 Connection established: lpa 1 bind 1 pid 4719
Data test 1 lasted less than 1 second
Test 1 send 1000 messages 1000 bytes
Test 1 rcvd 1000 messages 1000 bytes

<table>
<thead>
<tr>
<th>UPA</th>
<th>CDI_State</th>
<th>Frames-out</th>
<th>Frames-in</th>
<th>wd</th>
<th>mf</th>
<th>af</th>
<th>crc</th>
<th>ovr</th>
<th>abt</th>
<th>und</th>
<th>abt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INPUT_ALLOWED</td>
<td>2012</td>
<td>2012</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UPA</th>
<th>MODULE</th>
<th>DLPI_STATE</th>
<th>LPA</th>
<th>MUX</th>
<th>BIND</th>
<th>LAP_TYPE</th>
<th>PRIM</th>
<th>SEC</th>
<th>XMIT</th>
<th>RCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>hdlc</td>
<td>UNBOUND</td>
<td>1</td>
<td>9</td>
<td>01</td>
<td>ahm</td>
<td>01</td>
<td>03</td>
<td>2000</td>
<td>2000</td>
</tr>
</tbody>
</table>

No NPI upas are in use
Synchronous Serial Adapter/X.25 Protocol – Sample Results

On-chip Test

The on-chip test is similar to the in-memory test, except that the message looping occurs on the adapter card’s onboard serial chip. This test, which enables the chip’s back-to-back mode to tie the transmitter pin to the receiver pin, verifies:

- The adapter card is properly installed
- Interrupts are handled properly
- Data flows to and from the adapter card without corruption

Synchronous Serial Adapter/X.25 Protocol – Sample Results
**Back-to-back Test**

The back-to-back test the ports on the adapter card using a special back-to-back cable (color coded orange). GCOM includes this cable in the GCOM NPK (New Project Kit).

Connect the back-to-back orange test cable to the 2-port or 4-port cable connections as illustrated below. (Using the GCOM Break-out Box is optional, but it does give a visual indication of the protocol in action.)

**Two-port Cable Hookup**

![Two-port Cable Hookup Diagram]

**Four-port Quad Cable Hookup**

![Four-port Quad Cable Hookup Diagram]

**Synchronous Serial Adapter/X.25 Protocol – Sample Results**
Synchronous Serial Adapter/SNA Protocol – Sample Results

Synchronous Serial Adapter/Bisync Protocol – Sample Results
Run Tests Using Command Line Interface

<table>
<thead>
<tr>
<th>Adapter</th>
<th>Protocol</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchronous Serial</td>
<td>X.25</td>
<td>In-memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On-chip</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Back-to-back</td>
</tr>
<tr>
<td>SNA</td>
<td></td>
<td>Back-to-back</td>
</tr>
<tr>
<td>Bisync</td>
<td></td>
<td>Back-to-back</td>
</tr>
<tr>
<td>Frame Relay</td>
<td>In-memory</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>On-chip</td>
</tr>
</tbody>
</table>

Common Testing Problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Description/Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Message: Permission denied</td>
<td>All users need write permission to the <code>/usr/spool/gcom</code> directory so that any user running GCOM processes can create the necessary log files. If you receive this error, ask your system administrator to provide you with the proper permissions access.</td>
</tr>
<tr>
<td>Error Message: Monitor already running</td>
<td>You will receive this error If you perform tests using the command line interface and fail to unload the GCOM monitor between tests. After the completion of each test, be sure to type: <code>Gcom_dlpi -X</code></td>
</tr>
<tr>
<td>Problem</td>
<td>Description/Solution</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Prompt does not reappear</td>
<td>If you perform tests using the command line interface, the command prompt does not reappear while tests are running until you press the <strong>ENTER</strong> key. The prompt will reappear permanently after the test is completed or aborted with the <strong>Gcom_dlpix</strong> command.</td>
</tr>
<tr>
<td>Other errors</td>
<td>If you encounter errors not mentioned here, check with your system administrator to make sure your system is running properly. If the problem is not with your system, contact GCOM Support.</td>
</tr>
</tbody>
</table>

**Synchronous Serial Adapter/X.25 Protocol - In-memory Test**

To perform the X.25 in-memory test using the command line interface, at the terminal:

1. Type: `cd /usr/lib/gcom/sync570/x25`
2. Type: `./start.inmem`
3. Type: `./test.inmem`
   
   The test program sends and receives 1000 messages via the GCOM X.25 protocol module in the kernel. You may press a key at any time to regain a prompt. The terminal prints a status message when transmission is complete. This process should take no more than nine seconds. When the test is complete, the terminal displays a message similar to the following:

   Connection Established to address 1234.
   Sent 1000 messages, received 1000 messages in 9 seconds.
   Sent 1111 msgs per second, received 1111 messages per second.
   Sent 628375 bytes 558555 baud; received 628375 bytes 558555 baud.

4. To unload GCOM monitor software, type: `Gcom_dlpix -X`

**Synchronous Serial Adapter/X.25 Protocol - On-chip Test**

To perform the X.25 on-chip test using the command line interface, at the terminal:

1. Type: `cd /usr/lib/gcom/sync570/x25`
2. Type: `./start.onchip`
3. Type: `./test.onchip` (Press **Enter** to regain a prompt.)
4. Type: `./watch`
   
   The **watch** script, which prints every 10 seconds, lets you monitor the progress of the test as it sends and receives messages on the chip. One cycle of normal test output resembles the following:
The **Frames-out** and **Frames-in** counts should steadily rise as the test progresses.

5. To stop the `watch` script, press **Ctrl-C**.

6. To unload GCOM monitor software, type: `Gcom_dlpi -X`

**Synchronous Serial Adapter/X.25 Protocol - Back-to-back Test**

**Two-port Cable Hookup**

To perform the X.25 back-to-back test using the command line interface, at the terminal:

1. Type: `cd /usr/lib/gcom/sync570/x25`
2. Type: `./start.btob`

**Four-port Quad Cable Hookup**
3. Type: `./test.btot` (Press **Enter** at any time to regain a prompt.)

4. Type: `./watch`

   The **watch** script, which prints every 10 seconds, lets you monitor the progress of the test as it sends and receives messages on the chip. One cycle of normal test output resembles the following:

   UPArn0n State Frames-out Frames-in wd mf af crc ovr abt und abt
   1 INPUT_ALLOWED 331 327 0 0 0 0 0 0 0 0 0
   2 INPUT_ALLOWED 327 330 0 0 0 0 0 0 0 0 0

   UPA MODULE DLPI_STATE LPA MUX BIND LAP_TYPE PRIM SEC XMIT RCV
   1 frame infoxfer 1 11 01 lapb 01 03 320 317
   2 frame infoxfer 2 13 01 lapb 03 01 320 317

   UPaLPA NPl_State Type Chan Data_out Data-in Address PID
   -1 0 IDLE x 0 0 0 0 897
   1 2 DATA_XFER X.25 1 83 78 2222 901
   2 1 DATA_XFER X.25 10 83 78 1111 900
   3 1 DATA_XFER X.25 1 80 80 2222 902
   4 2 DATA-XFER X.25 10 80 80 1111 903

   The **Frames-out** and **Frames-in** counts should steadily rise as the test progresses.

5. To stop the **watch** script, press **Ctrl-C**.

6. To unload G COM monitor software, type: `Gcom_dlpi -X`

**Synchronous Serial Adapter/SNA Protocol - Back-to-back Test**

**Two-port Cable Hookup**

![Two-port Cable Hookup Diagram](image)

**Four-port Quad Cable Hookup**

![Four-port Quad Cable Hookup Diagram](image)
To perform the SNA back-to-back test using the command line interface, at the terminal:

1. Type: `cd /usr/lib/gcom/sync570/sna`
2. Type: `./start.sna.btob`
3. Type: `./test.sna.btob` (Press Enter at any time to regain a prompt.)
4. Type: `./watch`

The `watch` script, which prints every 10 seconds, lets you monitor the progress of the test as it sends and receives messages on the chip. One cycle of normal test output resembles the following:

```
UPA   CDI_State  Frames-out Frames-in wd mf af crc ovr abt und abt
1 INPUT_ALLOWED 111       110  0  0  0   0   0   0   0   0
2 INPUT_ALLOWED 110       111  0  0  0   0   0   0   0   0
UPA MODULE DLPI_STATE  LPA  MUX  BIND LAP_TYPE PRIM SEC  XMIT  RCV
1   hdlc   infoxfer     1    9    01 nrm_prim   cl     7   6
2   hdlc   infoxfer     2   11    01  nrm_sec    -  cl     6   7
UPA  LPA  NPI_State  Type  Chan Data-out Data-in  Address    PID
1     1 DATA_XFER   SNA     1        2       1  999900290  5039
2     1 DATA_XFER   SNA     2        6       5  999900222  5039
3     2 DATA_XFER   SNA     1        5       5  999900122  5041
```

The `Frames-out` and `Frames-in` counts should steadily rise as the test progresses.

5. To stop the `watch` script, press Ctrl-C.
6. To unload GCOM monitor software, type: `Gcom_dlpi -X`

**Synchronous Serial Adapter/Bisync Protocol - Back-to-back Test**

**Two-port Cable Hookup**

**Four-port Quad Cable Hookup**
To perform the Bisync back-to-back test using the command line interface, at the terminal:

1. Type: `cd /usr/lib/gcom/sync570/bisync`
2. Type: `./start.3270.btob`
3. Type: `./test.3270.btob` (Press Enter at any time to regain a prompt.)
4. Type: `./watch`

The `watch` script, which prints every 10 seconds, lets you monitor the progress of the test as messages are sent between ports 1 and 2. One cycle of normal test output that resembles the following:

```
UPA   CDI_State Frames-out Frames-in wd mf af crc ovr abt und abt
1  INPUT_ALLOWED       162       165  0  0  0   0   0   0   0   0
2  INPUT_ALLOWED       165       162  0  0  0   0   0   0   0   0
```

No DLPI upas are configured

```
UPA   LPA NPI_State Type Chan Data-out Data-in Address    PID
1     1   DATA_XFER BSC  1        0     160 99980101197196 4490
1     2   DATA_XFER BSC  1      164       0 99980202197196 4492
```

The `Frames-out` and `Frames-in` counts should steadily rise as the test progresses.

5. To stop the `watch` script, press Ctrl-C.
6. To unload GCOM monitor software, type: `Gcom_dlpi -X`

**Synchronous Serial Adapter/Frame Relay Protocol - In-memory Test**

To perform the Frame Relay in-memory test using the command line interface, at the terminal:

1. Type: `cd /usr/lib/gcom/sync570/frame-relay`
2. Type: `./start.fr.inmem`
3. Type: `./test.fr.inmem`

The test program sends and receives 1000 messages via the GCOM Frame Relay protocol module in the kernel. You may press a key at any time to regain a prompt. The terminal prints a status message when transmission is complete. This process should take no more than five seconds. When the test is complete, the terminal displays a message similar to the following:
Starting dlpitst at Tue May 15 10:32:11 2001
Syncing file system
Starting UIC test
Sent 1000 messages in 1 seconds for 1000 msgs per sec
Rcvd 1000 messages in 1 seconds for 1000 msgs per sec

4. To unload GCOM monitor software, type: **Gcom_dlpi -X**

**Synchronous Serial Adapter/Frame Relay Protocol - On-chip Test**

To perform the Frame Relay on-chip test using the command line interface, at the terminal:

1. Type: `cd /usr/lib/gcom/sync570/frame-relay`
2. Type: `./start.fr.onchip`
3. Type: `./test.fr.onchip` (Press **Enter** at any time to regain a prompt)
4. Type: `./watch`

   The **watch** script, which prints every 10 seconds, lets you monitor the progress of the test as it sends and receives messages on the chip. Two cycles of normal test output resemble the following:

   | UPA | CDI_State | Frames-out | Frames-in | wd | mf | af | crc | ovr | abt | und | abt |
   |-----|-----------|------------|-----------|----|----|----|-----|-----|-----|-----|-----|-----|
   | 1   | INPUT_ALLOWED | 430        | 430       | 0  | 0  | 0  | 0   | 0   | 0   | 0   | 0   |
   | 2   | INPUT_ALLOWED | 0          | 0         | 0  | 0  | 0  | 0   | 0   | 0   | 0   | 0   |

<table>
<thead>
<tr>
<th>UPA</th>
<th>MODULE</th>
<th>DLPI_STATE</th>
<th>LPA</th>
<th>MUX</th>
<th>BIND</th>
<th>LAP_TYPE</th>
<th>PRIM</th>
<th>SEC</th>
<th>XMIT</th>
<th>RCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>frame</td>
<td>IDLE</td>
<td>1</td>
<td>30</td>
<td>01</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>214</td>
<td>214</td>
</tr>
<tr>
<td>2</td>
<td>frame</td>
<td>IDLE</td>
<td>1</td>
<td>30</td>
<td>02</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>220</td>
<td>220</td>
</tr>
<tr>
<td>3</td>
<td>frame</td>
<td>IDLE</td>
<td>2</td>
<td>31</td>
<td>02</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>frame</td>
<td>IDLE</td>
<td>2</td>
<td>31</td>
<td>02</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UPA</th>
<th>CDI_State</th>
<th>Frames-out</th>
<th>Frames-in</th>
<th>wd</th>
<th>mf</th>
<th>af</th>
<th>crc</th>
<th>ovr</th>
<th>abt</th>
<th>und</th>
<th>abt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INPUT_ALLOWED</td>
<td>1698</td>
<td>1698</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>INPUT_ALLOWED</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UPA</th>
<th>MODULE</th>
<th>DLPI_STATE</th>
<th>LPA</th>
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<th>LAP_TYPE</th>
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<th>XMIT</th>
<th>RCV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>frame</td>
<td>IDLE</td>
<td>1</td>
<td>30</td>
<td>01</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>847</td>
<td>847</td>
</tr>
<tr>
<td>2</td>
<td>frame</td>
<td>IDLE</td>
<td>1</td>
<td>30</td>
<td>02</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>856</td>
<td>856</td>
</tr>
<tr>
<td>3</td>
<td>frame</td>
<td>IDLE</td>
<td>2</td>
<td>31</td>
<td>01</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>frame</td>
<td>IDLE</td>
<td>2</td>
<td>31</td>
<td>02</td>
<td>frm_rly</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

5. To stop the **watch** script, press **Ctrl-C**.
6. To unload GCOM monitor software, type: **Gcom_dlpi -X**

**System Rescue**

The **GCOM** Management Console offers several file management functions:

<table>
<thead>
<tr>
<th>Function</th>
<th>Manages</th>
<th>Used For</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Archives</strong></td>
<td>Individual protocol stack, SyncSockets Daemon, application reference, or generated configuration files</td>
<td>Diagnostic purposes on all Gcom products that use the <strong>GCOM</strong> Management Console</td>
</tr>
<tr>
<td>Function</td>
<td>Manages</td>
<td>Used For</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Config Rescue</td>
<td>All protocol stack, SyncSockets Daemon, application reference, and generated configuration files simultaneously</td>
<td>Disaster recovery purposes on all GCOM products that use the GCOM Management Console</td>
</tr>
<tr>
<td>Network Rescue</td>
<td>Network configuration information, such as MAC and IP addresses, for a GCOM GPA product</td>
<td>Disaster recovery purposes on GCOM GPA products</td>
</tr>
<tr>
<td>System Rescue</td>
<td>All information needed to recreate and operate a GCOM GPA product</td>
<td>Disaster recovery purposes on GCOM GPA products</td>
</tr>
</tbody>
</table>

Use the System Rescue function to:

- Copy all information needed to recreate and operate a GCOM GPA product...
- To a special partition on the GCOM GPA product hard drive

If the GCOM GPA product hard drive fails, use the GCOM Rescue Pen Drive (that accompanied the GCOM GPA product) to boot the GCOM GPA product and restore the information.
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create System Rescue</td>
<td>Copy all information needed to recreate and operate a GCOM GPA product to a special partition on the GCOM GPA product hard drive.</td>
</tr>
</tbody>
</table>

Create System Rescue

1. From the Troubleshoot Subsystem Menu, choose System Rescue to display the Context Sensitive Menu.

2. From the Context Sensitive Menu, choose Create System Rescue to copy all information needed to recreate and operate the GCOM GPA product to a special partition on the GCOM GPA product hard drive.

   This process could take up to 10 minutes. When the process is complete, the system displays the following window.
Mounting rescue partition. Done
Making sure PPM partition 1 is mounted. Done
Making sure PPM partition 2 is mounted. Done
Making sure PPM partition 3 is mounted. Done
Making user rescue for PPM partition 1. Done
Making user rescue for PPM partition 2. Done
Making user rescue for PPM partition 3. Done
Making user rescue for root (~5 minutes). Done
Dismounting rescue partition. Done
Checking rescue partition: /dev/hda5: 194112384 files (0.0% non-contiguous),
514501/8219247 blocks
Done
# GCOM Management Console Functions Alphabetically

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<th>Function</th>
<th>Description</th>
</tr>
</thead>
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</tr>
<tr>
<td>Access Logs</td>
<td>Display log files to send to GCOM Support.</td>
</tr>
<tr>
<td>Access Tracing</td>
<td>Perform traces on different layers of GCOM communications streams to send to GCOM Support.</td>
</tr>
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<td>• Associate protocol stack configurations with adapter card ports.</td>
</tr>
<tr>
<td></td>
<td>• Run the configurations.</td>
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<tr>
<td></td>
<td>• Monitor running configurations.</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>• Disassociate protocol stack configurations from adapter card ports.</td>
</tr>
<tr>
<td>Add App</td>
<td>Manage the applications a user may run.</td>
</tr>
<tr>
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<td>Add a new user ID to the system.</td>
</tr>
<tr>
<td>All Statistics</td>
<td>Display raw STREAMS statistics for the CDI, DLPI, NPI, and IOCTL (if applicable) layers.</td>
</tr>
<tr>
<td>Applications</td>
<td>• Create and manage SyncSockets Daemon configuration files.</td>
</tr>
<tr>
<td></td>
<td>• Select and customize command line parameters for applications your administrator has defined as safe to run from the GCOM Management Console.</td>
</tr>
<tr>
<td>Apps</td>
<td>• Sequence application configurations in the order you want them run.</td>
</tr>
<tr>
<td></td>
<td>• Run the configurations.</td>
</tr>
<tr>
<td></td>
<td>• Monitor running configurations</td>
</tr>
<tr>
<td></td>
<td>• Stop running the configurations.</td>
</tr>
<tr>
<td>Archive User's Files</td>
<td>Create and download a <code>.tar</code> archive of all files created/owned by the chosen user.</td>
</tr>
<tr>
<td>Archives</td>
<td>Manage individual protocol stack, SyncSockets Daemon, application reference, or generated configuration files for diagnostic purposes.</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Assign Application</td>
<td>Associate an application configuration with a run order placement. The order in which you assign application configurations controls the order in which the configurations run.</td>
</tr>
<tr>
<td>Assign SSD</td>
<td>Associate a SyncSockets Daemon configuration with a run order placement. The order in which you assign SyncSockets Daemon configurations controls the order in which the configurations run.</td>
</tr>
<tr>
<td>Assign Stack</td>
<td>Associate a protocol stack configuration with an adapter card port.</td>
</tr>
<tr>
<td>Assign Stack</td>
<td>Associate a protocol stack configuration with a LAN connection. The order in which you assign protocol stack configurations to LAN connections controls the order in which they run.</td>
</tr>
<tr>
<td>Become User</td>
<td>Trigger a GCOM Management Console reload and logon as the chosen user. To return to Administrative User access, log back in.</td>
</tr>
<tr>
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<td>Modify the chosen user’s password.</td>
</tr>
<tr>
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<td>Manage all protocol stack, SyncSockets Daemon, application reference, and generated configuration files simultaneously for disaster recovery purposes.</td>
</tr>
<tr>
<td>Configuration</td>
<td>• Create and manage protocol stack configurations.</td>
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<td></td>
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<tr>
<td></td>
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<td></td>
<td>• SyncSockets Daemon configuration(s)</td>
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<td></td>
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</tr>
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<td></td>
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</tr>
<tr>
<td>Create Config Rescue</td>
<td>Create a backup file containing all configuration files and download it to a workstation.</td>
</tr>
<tr>
<td>Create System Rescue</td>
<td>Copy all information needed to recreate and operate a GCOM GPA product to a special partition on the GCOM GPA product hard drive.</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
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<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
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<td>Delete the active application configuration:</td>
</tr>
<tr>
<td></td>
<td>• From memory</td>
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<tr>
<td></td>
<td>• From the server</td>
</tr>
<tr>
<td><strong>Delete SSD</strong></td>
<td>Delete the active SyncSockets Daemon configuration:</td>
</tr>
<tr>
<td></td>
<td>• From memory</td>
</tr>
<tr>
<td></td>
<td>• From the server</td>
</tr>
<tr>
<td><strong>Delete Stack</strong></td>
<td>Delete the active protocol stack configuration:</td>
</tr>
<tr>
<td></td>
<td>• From memory</td>
</tr>
<tr>
<td></td>
<td>• From the server</td>
</tr>
<tr>
<td><strong>Download</strong></td>
<td>Copy a backup file from a GCOM product to a workstation.</td>
</tr>
<tr>
<td>(Archive)</td>
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<td><strong>Download Config Rescue</strong></td>
<td>Copy the most recent backup file from a GCOM product to a workstation.</td>
</tr>
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<td>Query the server to detect all installed communications devices.</td>
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<tr>
<td></td>
<td><strong>Run this command if:</strong></td>
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<tr>
<td></td>
<td>• This is the first time the GCOM Management Console has been used.</td>
</tr>
<tr>
<td></td>
<td>• You just added new hardware to your system.</td>
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<tr>
<td></td>
<td>• You just installed a new version of GCOM Management Console software.</td>
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<td>Display:</td>
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<tr>
<td></td>
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<tr>
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</tr>
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<td>Load an application configuration from the server.</td>
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<td>Load a SyncSockets Daemon configuration from the server.</td>
</tr>
<tr>
<td>Function</td>
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<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Load Stack</strong></td>
<td>Load a protocol stack configuration from the server.</td>
</tr>
<tr>
<td><strong>Manage Users</strong></td>
<td>• Add, change, delete, view, and archive all files associated with a user ID.</td>
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<tr>
<td></td>
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<tr>
<td><strong>Management</strong></td>
<td>• Assign configurations to ports.</td>
</tr>
<tr>
<td></td>
<td>• Start configurations/ports.</td>
</tr>
<tr>
<td></td>
<td>• Monitor running configurations.</td>
</tr>
<tr>
<td></td>
<td>• Manage configuration file backups.</td>
</tr>
<tr>
<td><strong>New App</strong></td>
<td>• Set up application reference configurations that define applications your administrator has deemed safe to run from the GCOM Management Console.</td>
</tr>
<tr>
<td></td>
<td>• Select and customize command line parameters for those applications.</td>
</tr>
<tr>
<td><strong>New SSD</strong></td>
<td>Create a SyncSockets Daemon configuration.</td>
</tr>
<tr>
<td><strong>New Stack</strong></td>
<td>Create a protocol stack configuration.</td>
</tr>
<tr>
<td><strong>Open Debug</strong></td>
<td>Open a secondary window GCOM Support uses to diagnose errors.</td>
</tr>
<tr>
<td></td>
<td><strong>Caution:</strong> Use only under the direction of GCOM Support.</td>
</tr>
<tr>
<td><strong>Perform Dump</strong></td>
<td>Gather diagnostic information from the kernel, configuration files, and the system’s message file to send to GCOM Support.</td>
</tr>
<tr>
<td><strong>Quick Help</strong></td>
<td>Display (this) GCOM Management Console User Guide.</td>
</tr>
<tr>
<td><strong>Remove User</strong></td>
<td>• Remove the chosen user’s account and password from the system.</td>
</tr>
<tr>
<td></td>
<td>• Delete all user files and directories owned by the user.</td>
</tr>
<tr>
<td><strong>Run Tests</strong></td>
<td>Perform various startup tests to verify the proper installation of GCOM hardware and software before you try to integrate your application.</td>
</tr>
<tr>
<td></td>
<td>You may use the:</td>
</tr>
<tr>
<td></td>
<td>• <strong>Gcom Management Console</strong> to run most of these tests</td>
</tr>
<tr>
<td></td>
<td>• <strong>Command line interface</strong> to run all these tests</td>
</tr>
<tr>
<td><strong>Save SSD As</strong></td>
<td>Rename a SyncSockets Daemon configuration.</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Save Stack</td>
<td>Store information for the currently loaded protocol stack configuration on the server for later recall.</td>
</tr>
<tr>
<td>Save Stack As</td>
<td>Rename a protocol stack configuration.</td>
</tr>
</tbody>
</table>
| SSDs                | - Sequence SyncSockets Daemon configurations in the order you want them run.  
                      | - Run the configurations.  
                      | - Monitor running configurations  
                      | - Stop running the configurations.                                                                                                                                                                      |
| Start All Ports     | Start all assigned configurations (protocol stack, application, and SyncSockets Daemons).                                                                                                               |
| Start Application   | Run an application configuration.                                                                                                                                                                       |
| Start Port          | Run a protocol stack configuration on an adapter card port.                                                                                                                                            |
| Start Port          | Run a protocol stack configuration on a LAN connection.                                                                                                                                                |
| Start SSD           | Run a SyncSockets Daemon configuration.                                                                                                                                                                 |
| Stop All Ports      | Stop all running configurations (protocol stack, application, and SyncSockets Daemons).                                                                                                               |
| Stop Application    | Stop running an application configuration.                                                                                                                                                              |
| Stop Port           | Stop running a protocol stack configuration on an adapter card port.                                                                                                                                   |
| Stop Port           | Stop running a protocol stack configuration on a LAN connection.                                                                                                                                         |
| Stop SSD            | Stop running a SyncSockets Daemon configuration.                                                                                                                                                           |
| System Rescue       | Manage all information needed to recreate and operate a failed GCOM GPA product.                                                                                                                        |
| Topics              | Display the GCOM Documents Library.                                                                                                                                                                      |
| Troubleshoot        | - Run tests.  
                      | - View log files.  
                      | - Monitor running configurations.  
<pre><code>                  | - Submit data directly to GCOM Support for diagnosis.                                                                                                                                                  |
</code></pre>
<p>| Unassign Application| Disassociate an application configuration from a run order placement.                                                                                                                                     |
| Unassign SSD        | Disassociate a SyncSockets Daemon configuration from a run order placements.                                                                                                                             |</p>
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unassign Stack</strong></td>
<td>Disassociate a protocol stack configuration from an adapter card port.</td>
</tr>
<tr>
<td><strong>Unassign Stack</strong></td>
<td>Disassociate a protocol stack configuration from a LAN connection.</td>
</tr>
<tr>
<td><strong>Upload (Archive)</strong></td>
<td>Copy a backup file from a workstation to a GCOM product.</td>
</tr>
<tr>
<td><strong>Upload Config Rescue</strong></td>
<td>Copy a backup file from a workstation to a GCOM product.</td>
</tr>
<tr>
<td><strong>View User’s Files</strong></td>
<td>Display a list of all files created/owned by the chosen user.</td>
</tr>
<tr>
<td></td>
<td>• To view file data: Choose the file, then from the Context Sensitive Menu,</td>
</tr>
<tr>
<td></td>
<td>choose View Data.</td>
</tr>
<tr>
<td></td>
<td>• To delete a file: Choose the file, then from the Context Sensitive Menu,</td>
</tr>
<tr>
<td></td>
<td>choose Delete.</td>
</tr>
<tr>
<td></td>
<td>• To return to the file list: From the Context Sensitive Menu, choose Return</td>
</tr>
<tr>
<td></td>
<td>from the Context Sensitive Menu.</td>
</tr>
</tbody>
</table>
Building, Configuring, and Running Communication Streams

- General Instructions
- Show Me How

General Instructions

- A. Query the server to detect all installed communications devices.
- B. Create a new protocol stack configuration.
- C. Build the protocol stack configuration.
- D. Save the protocol stack configuration.
- E. Edit global data parameters.
- F. Edit module configuration parameters.
- G. Run the protocol stack configuration.

A. Query the server to detect all installed communications devices.

Use Hardware Data on the Troubleshoot Subsystem Menu if:

- This is the first time the GCOM Management Console has been used.
- You just added new hardware to your system.
- You just installed a new version of GCOM Management Console software.

B. Create a new protocol stack configuration.

Use New Stack on the Configuration Subsystem Menu. End result:
Notice the protocol stack name appears in **yellow**. This means the protocol stack configuration is not yet saved.

C. **Build the protocol stack configuration.**

1. From the **Selection Area**, choose the appropriate module for the bottom layer (hardware medium) of the protocol stack.

   The system responds by displaying in the **Work Area** the chosen module beneath the Next Layer module.
Notice the system limits/refines the available choices in the Selection Area for each successive stack layer based on your previous choice.

2. From the Selection Area, choose the appropriate module for the layer immediately above the hardware medium.

The system responds by displaying in the Work Area the chosen module beneath the Next Layer module but above the module representing the hardware medium.
3. Continue choosing modules until you finish building the protocol stack.

**Note:** The presence of the Next Layer module does not interfere with your configuration and offers the ability to extend the protocol stack in the future.

**D. Save the protocol stack configuration.**

Use **Save Stack** on the **Configuration Subsystem Menu.** End result:
Notice the protocol stack name appears in cyan. This means the protocol stack configuration has been saved.

**E. Edit global data parameters.**

Global data is system-level configuration information that sets up the GCOM STREAMS environment. This is usually a one-time activity.

To edit global data parameters:

1. From the *Context Sensitive Menu*, choose *Edit Global Data*.
   The system responds by displaying in the *Work Area* a subset of the global data parameters you would most likely change.

2. If desired, in the *Work Area*, choose *Show all* to display all global data parameters in the *Work Area*.
   The system responds by displaying all global data parameters preceded by:
   - V – Choose the checkbox to its right to make this parameter viewable when *Show all* is not toggled on
   - Or H – Choose the checkbox to its right to hide this parameter when *Show all* is not toggled on.
3. If desired, choose the parameter name to open a second window with legal value and description details.

4. Modify parameters as necessary.

5. When you are finished, from the Context Sensitive Menu, choose Save Config.

   **Note:** Choosing Save Config also resaves the protocol stack information.

6. From the Context Sensitive Menu, choose Return.

   The system responds by redisplaying in the Work Area the protocol stack.

**F. Edit module configuration parameters.**

Each module in the protocol stack configuration has parameters preset for the most general environment for each protocol. You must edit these parameters to meet your specific needs.

To edit module parameters:

1. In the Work Area, choose a module.

   The system responds by changing the module outline from blue to red.
Note: Your activities in the Work Area always apply to the module outlined in red.

2. From the Context Sensitive Menu, choose Edit Module.

The system responds by displaying a subset of the module parameters you would most likely change.
3. If desired, from the Work Area, choose Show all to display all parameters for this module.  
   The system responds by displaying all parameters, preceded by:
   
   o V – Choose the checkbox to its right to make this parameter viewable when Show all is not toggled on
   
   o Or H – Choose the checkbox to its right to hide this parameter when Show all is not toggled on.

4. If desired, choose the parameter name to open a second window with legal value and description details.

5. Modify parameters as necessary.

6. When you are finished, from the Context Sensitive Menu, choose Save Config.
   
   Note: Choosing Save Config also resaves the stack information.

7. From the Context Sensitive Menu, choose Return.
   
   The systems responds by redisplaying in the Work Area the protocol stack.

8. Repeat steps 1 through 8 for all modules.

G. Run the protocol stack configuration.

Use Adapters on the Management Subsystem Menu to:

1. Assign the protocol stack configuration to a port.
2. Start the port.
Show Me How

Under construction. Please check back soon.