GRYPHON PC Connection and Networking Quick Start Guide

Background

The Gryphon is an advanced engineering tool designed to allow engineers to view and record traffic from high reliability data busses such as Controller Area Network (CAN) and Local Interconnect Network (LIN). The Gryphon runs on the Linux operating system and is capable of running programs compiled for that operating system in a manner independent of any other computer. As a result, a connection between the Gryphon and a typical PC is not via a local serial connection (e.g. USB) such as it is on CAN adapters like the Dearborn Protocol Adapter (DPA), but is via a wired or wireless Ethernet connection. It is important for all individuals that deal with the Gryphon to be familiar with the networking options available to connect the Gryphon with a PC, and the proper configuration of those networking options.

First Steps

First, surf to the Gryphon in question via any modern Web browser. The easiest way to do this is to hook in a null Ethernet cable (also known as a crossover cable) from your PC to the Gryphon. The default IP address for a Gryphon is 192.168.1.1, so the address that should be typed into a Web browser on a PC connected to a Gryphon with default networking settings is http://192.168.1.1.

Note: If the default IP address doesn't work, obtain the tool known as scan.exe, or use Hercules. Either of these will use ZeroConf networking to find the IP address of your "lost" Gryphon.

When on the main menu page, on the left-hand side of the page the options Configuration, Modules/Pinouts, Info/Stats, Channels, Documentation, and Utilities are present. Click Configuration. You will be prompted to input a username and password.

Default Username	sysadmin
Default Password	dggryphon

When entering the DG Gryphon System Administration page, click the Network tab.

Options

The main options available for networking a Gryphon are as follows:

- Networked Client

- Server

- Local Client

Networked Client

To configure as a networked client, first go to the correct network interface.

Wired Networked Client Option

If utilizing wired Ethernet to connect the Gryphon to a LAN (local area network) via a router, hub, or some other method, go to the eth0 network interface section. By default, on an S3 this section is labeled S3_Ethernet (eth0). By default, on a G2 this section is labeled G2_Ethernet. Under the eth0 section:

1. Ensure the Automatic radio button is selected

2. Click Submit Changes

3. Connect the Gryphon to the network port using a normal (non-null/non-crossover) Ethernet cable

Wireless Networked Client Option (Corporate Wi-Fi Option)

If utilizing wireless networking (Wi-Fi) to connect the Gryphon to a LAN, go to the eth1 section. On the S3, this is typically labeled Atheros_Cardbus_802.11 (eth1).

1. First, make sure the IP address in the wired section is set to Manual

2. Set the Net mask to 255.255.255.0

3. Click Submit Changes

4. Next, under the eth1 section for the Wi-Fi interface, change SSID to Any Available

5. WLAN Mode should be set to Auto

6. Operating Mode should be Managed

7. WEP Mode and the WEP Key need to match the WEP settings of the corporate network you are trying to connect to

Note: The Gryphon does not currently support WPA encryption, but it does support WEP.

8. Configuration Type should be set to Automatic (DHCP Client/Zeroconf)

9. Click Submit Changes

Server

To configure as a wired server:

Under the eth0 network interface section, ensure the Server radio button is selected, and then click Submit Changes. Use a null (crossover) Ethernet cable to hook the Gryphon directly to a PC, or use a standard Ethernet cable to hook the Gryphon to a network port.

 Warning! Do not allow the Gryphon to become a server on a network that already has a server. This includes more than 99.999% of corporate networks! Doing so could cause chaos on the network and will likely make the network administrator very upset.

 Note: There is no wireless server option. The options for wireless connectivity are networked client or local client.

Local Client

Wired Local Client:

To configure as a wired local client, under the eth0 network interface section, ensure the Manual radio button is selected, and then enter an IP address. Click Submit Changes. Connect using a null (crossover) Ethernet cable to the Gryphon.

Wireless Local Client:

To configure as a wireless local client, under eth1, change SSID from Any Available to the other option, and change the text field to a unique name not found in the area. To determine what Wi-Fi points are in the area, use your laptop's wireless configuration tool. After entering a unique SSID, change Operating Mode to Ad-Hoc. It is your choice as to whether or not to use WEP encryption. If not using it, change WEP Mode to Disabled. If using it, enter the correct number of hexadecimal digits as instructed. You may wish to change the channel to something unused by other access points in the area. Change Configuration Type to Manual. Enter an IP address of your choosing, and ensure the Net Mask is set to 255.255.0.0. The wired (eth0) Net Mask should be set to 255.255.255.0.

Next, connect to the Gryphon wirelessly via your PC by linking with the Gryphon's Ad-Hoc network.