Network Data Rates

Controller	Connectivity
3000	10BaseT
5000GL	10BaseT
6000	10/100BaseT
6000HS	10/100/1000BaseT (2 ports)

Port Assignment - Gallagher Controller to Gallagher Command Centre Server

Keyword	Decimal	Description	Function
ftp	21/tcp	File transfer (control)	Software download to FTController
Bootps	67/tcp	Bootstrap protocol server	BootP
Bootpc	68/tcp	Bootstrap protocol client	BootP
www	80/tcp	HTTP	Internet Explorer to FTController connection
Cardax	1072/tcp	Gallagher	FTController connection (enable both ways)

Notes:
1. CARDAX port 1072 is required for Gallagher Controller to Gallagher Server communications
2. FTP port 21 is only required for updating Gallagher Controller software via Gallagher Server
3. BootP ports 67/68 are only required if BootP/BootStrap protocol required for assigning Gallagher Controller IP addresses
4. WWW port 80 is only required if web browsing to a Gallagher Controller required
5. If a gateway is defined for the Gallagher Controller, ICMP must be enabled between the Controller and its gateway as the Controller will first ping the gateway if it needs to send a message to an address outside of its subnet.

Port Assignment - Gallagher Command Centre Server to Client Workstation

Keyword	Decimal	Description	Function
epmap	135/tcp	DCE endpoint resolution	Client Connection
various	dynamic/tcp	DCOM (5 x dynamic ports)	Licence Verification, Alarms and Events, CCNTSAD

Note:
1. Port 135 is required for initiating Client/Server connection

Controllers acquire IP addresses after they issue a BootP broadcast request.

Gallagher Command Centre incorporates a service called BootP. If a controller is isolated from Gallagher Command Centre by a router, BootP broadcasts are likely to be blocked. In this case, either the Gallagher BootP server or a third party BootP or DHCP Server needs to be installed in the same network segment as the controller.

Workstation to Server Communications

Gallagher Command Centre server communicates with its workstations using the Distributed Component Object Model (DCOM) over TCP/IP. Because the amount of data transferred between the workstation and server is both substantial and time critical, any TCP/IP infrastructure used by the communications must meet the following minimum standards.

Ping Times   < 20 ms   Effective data rate   > 4 M bit/s