Honeywell

Remote Engineering and Operations (Carbon Copy 32)

Objectives

Given an operational TPS System, install and configure Remote Engineering and Operations to allow remote operation of your GUS node.

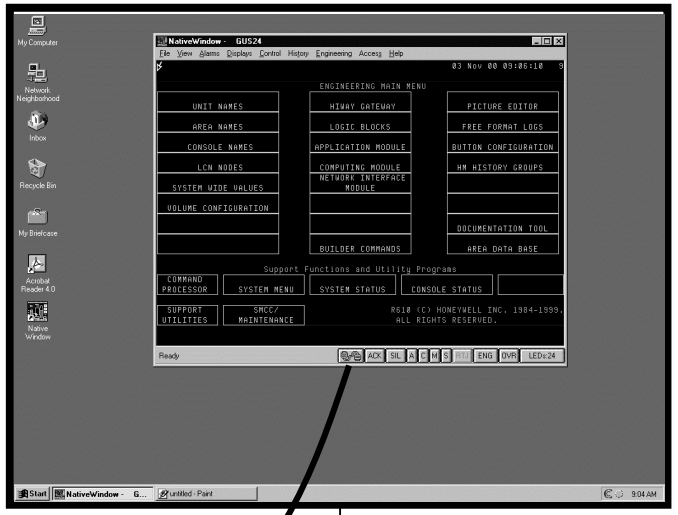
In This Module

- Overview
- Identify a GUS Server and a GUS Client
- Uses of Remote Engineering and Operations
- Topology
- Hardware Requirements

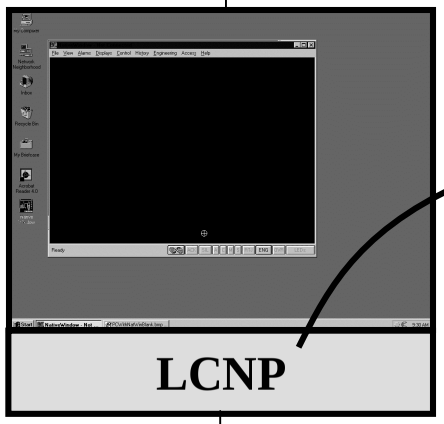
Standard PC

Remote Engineering and Operations

Remote Native Window



PCN



GUS

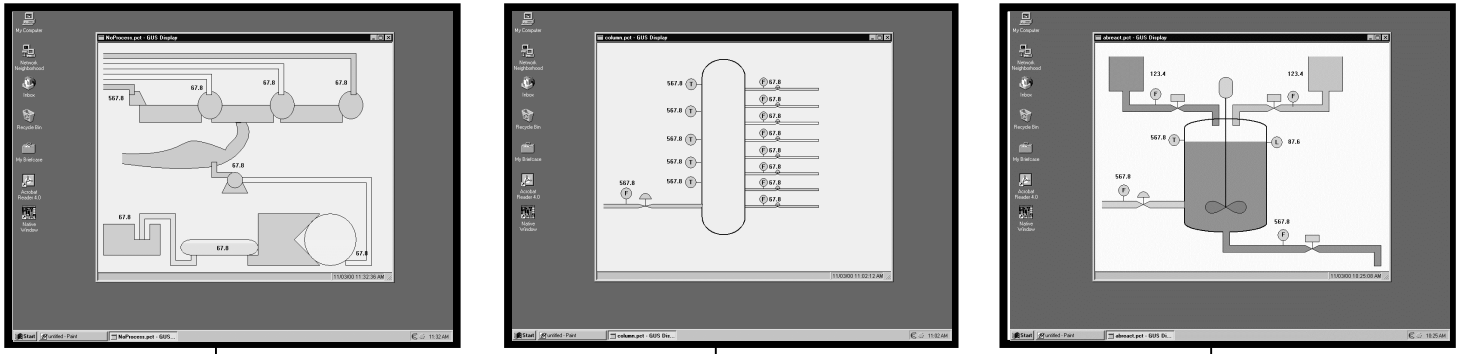
LCNP

LCN

Remote Engineering and Operations

Remote GUS Displays

GUS Display Clients



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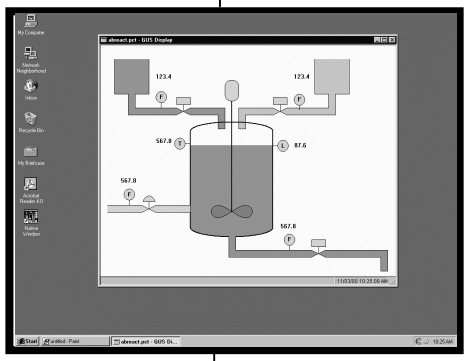


GUS Display Server

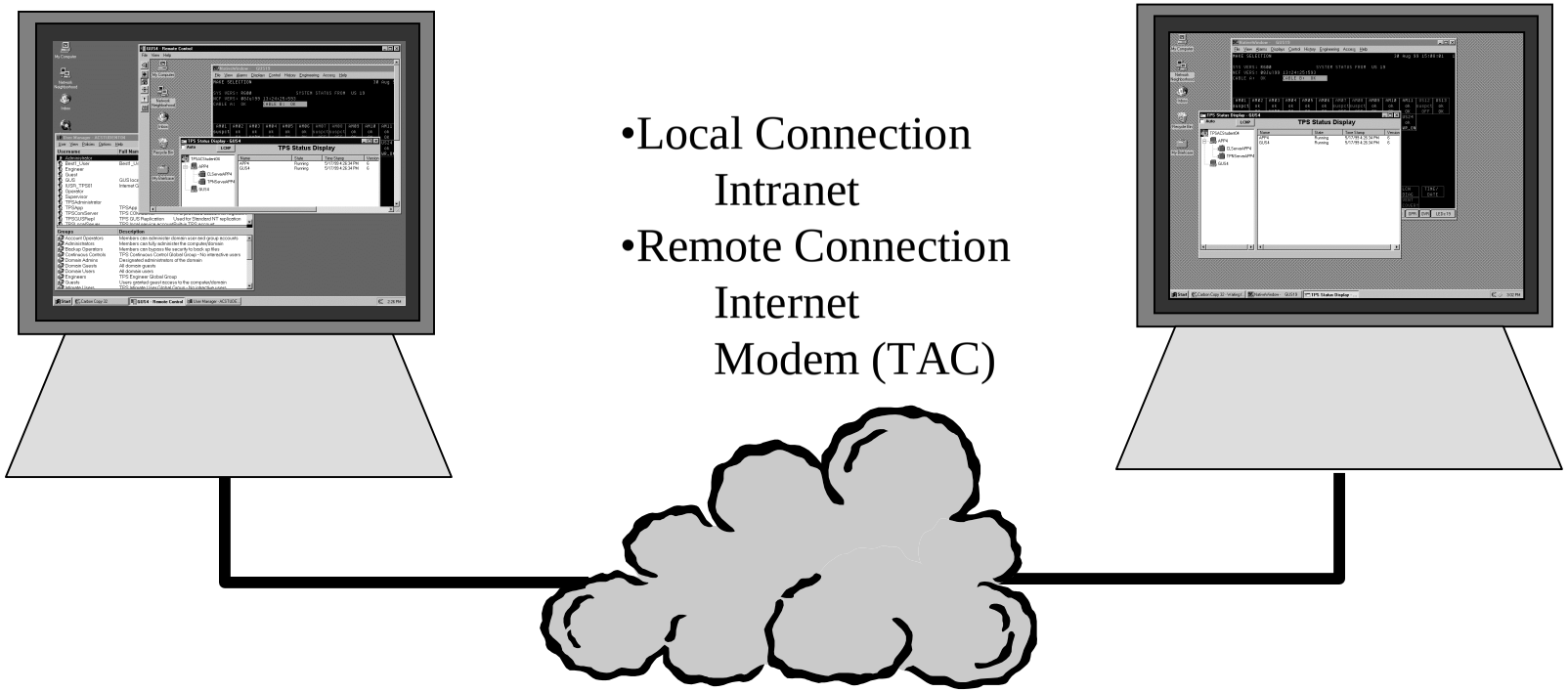
LCN

Remote Engineering and Operations

Overview

Client

Server

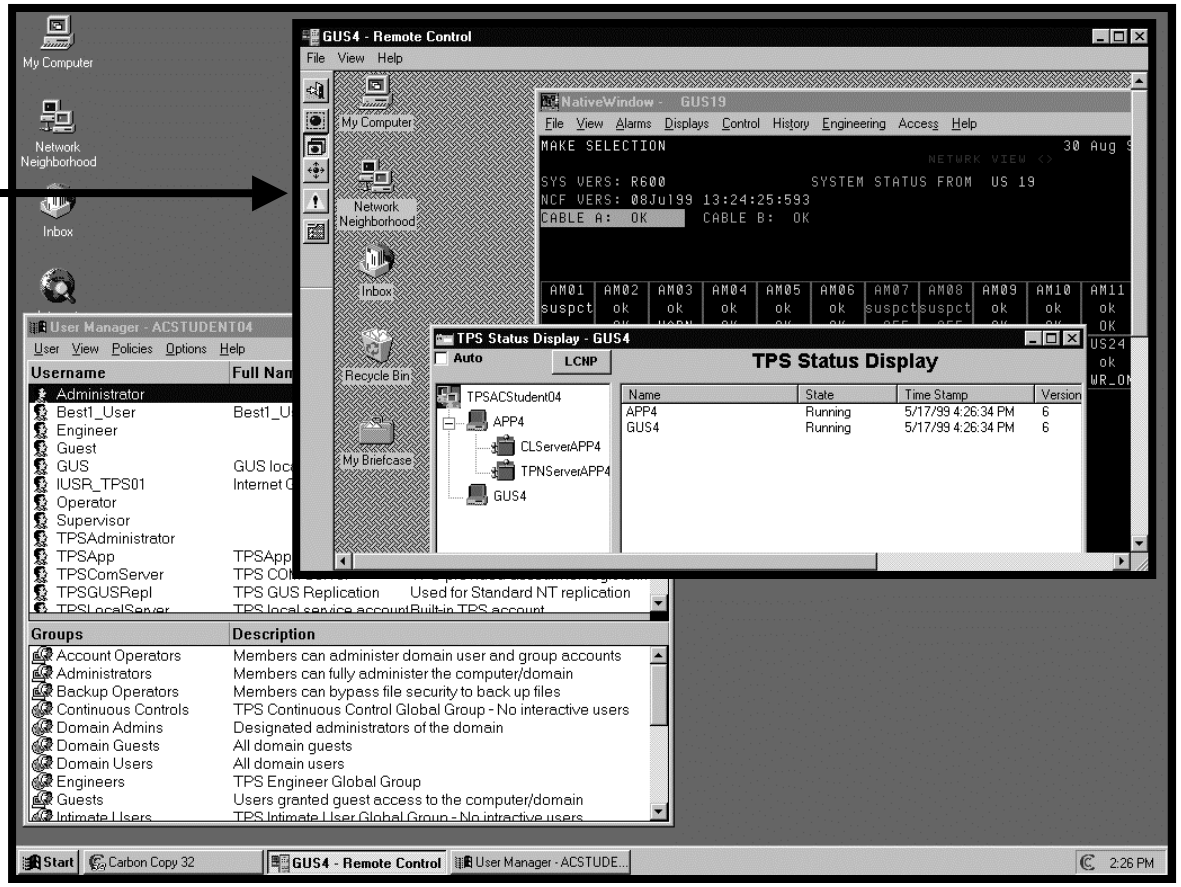


Remote Engineering and Operations

Client and Server Windows

Server Screen in Carbon Copy Window

Client Screen

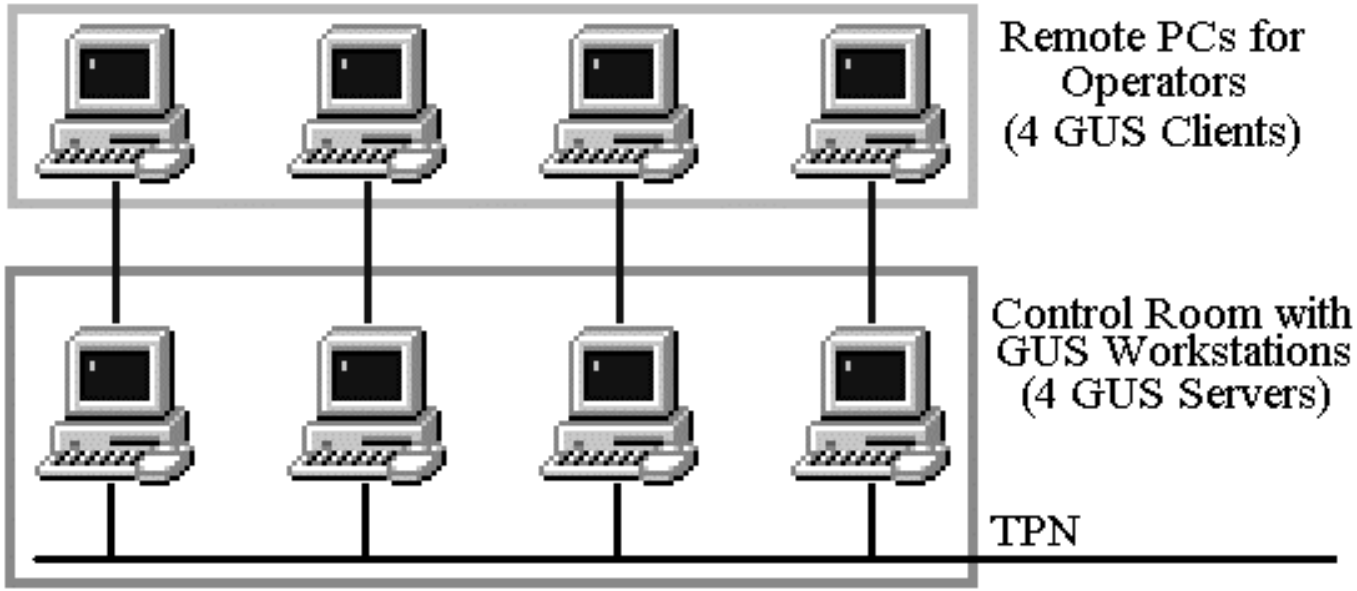


Remote Engineering and Operations

Remote User Roles

Remote Console Operators

- Use multiple Remote Clients (top) to view and control the process.
- Remotes are connected via LANs, so remote operators can temporarily "take over" for operators in a control room if, for example, a room must be evacuated.

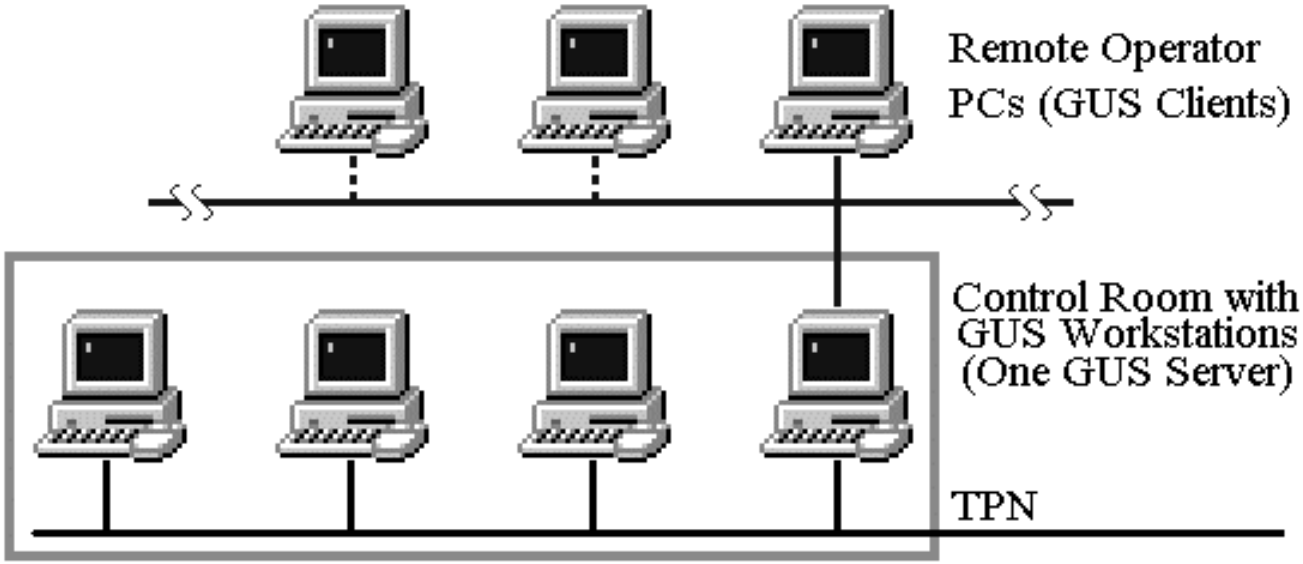


Remote Engineering and Operations

Remote User Roles

Roving Remote Operators

- Roving Operators move between multiple GUS Clients.
- A (remote) GUS Client can connect to only one GUS Server at a time.
- More than one GUS Client ***cannot*** connect to the same GUS Server.
- The first GUS Client must hangup before another GUS Client can connect.

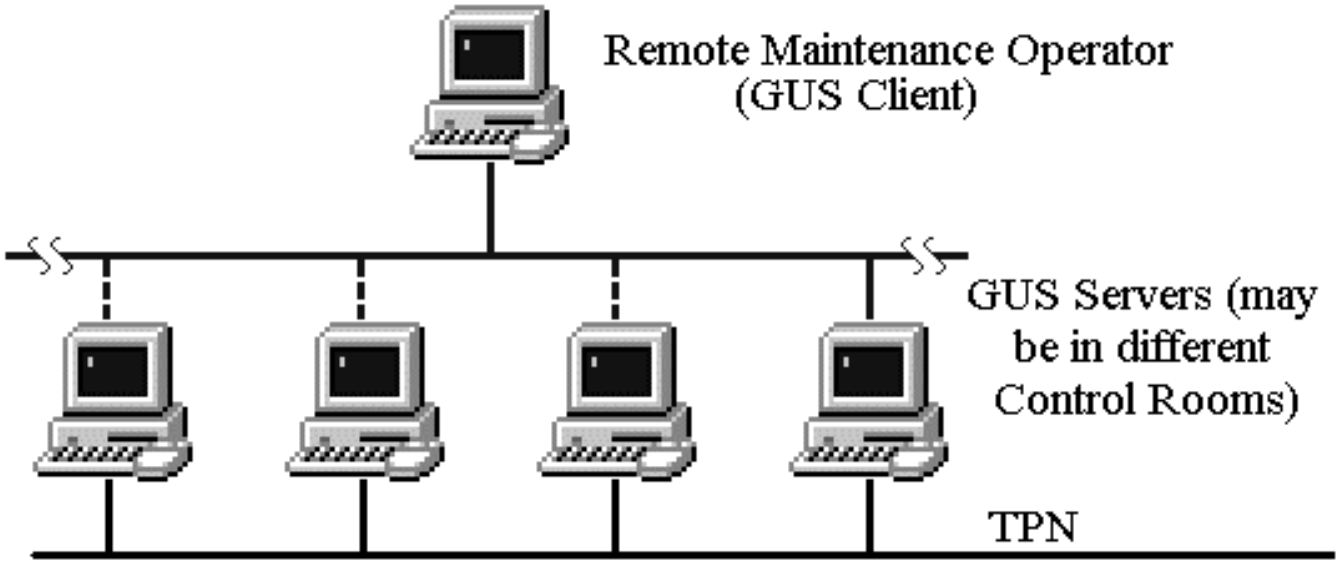


Remote Engineering and Operations

Remote User Roles

Remote Maintenance

- Can connect to GUS Servers located at different sites.
- Can connect to only one GUS Server at a time.

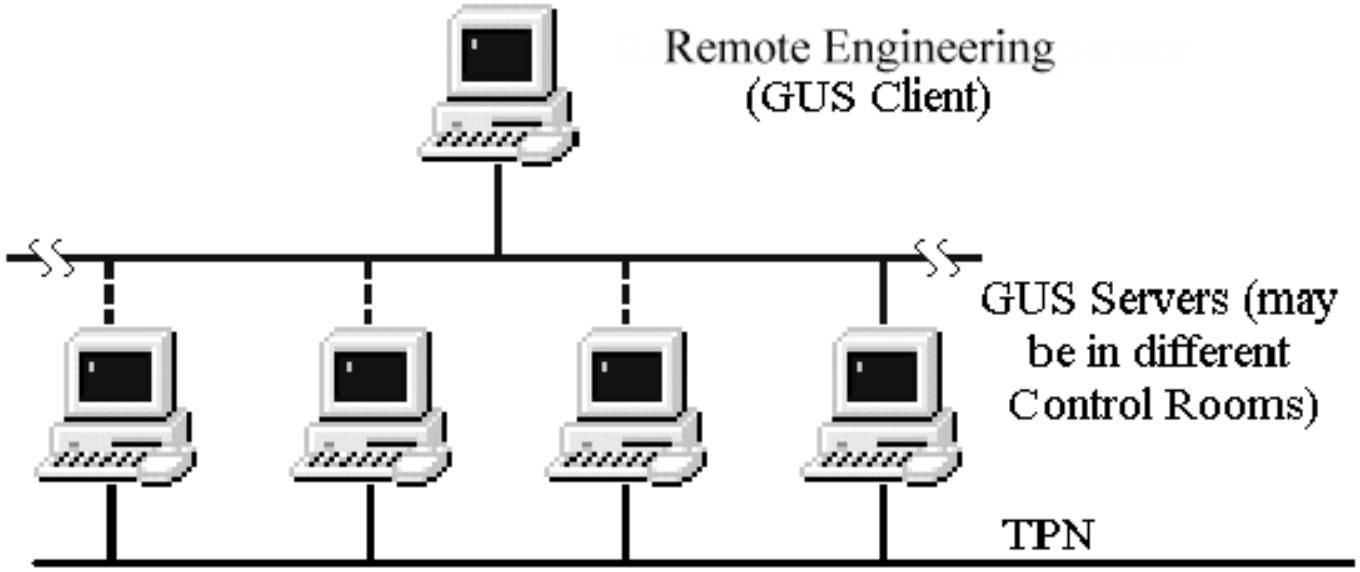


Remote Engineering and Operations

Remote User Roles

Remote Engineering

- Can put GUS Server in Engineer Mode
- Interpret runtime error information
- Provide technical assistance
- Modify scripting
- Verify configuration settings
- Perform initial development
- Provide system configuration

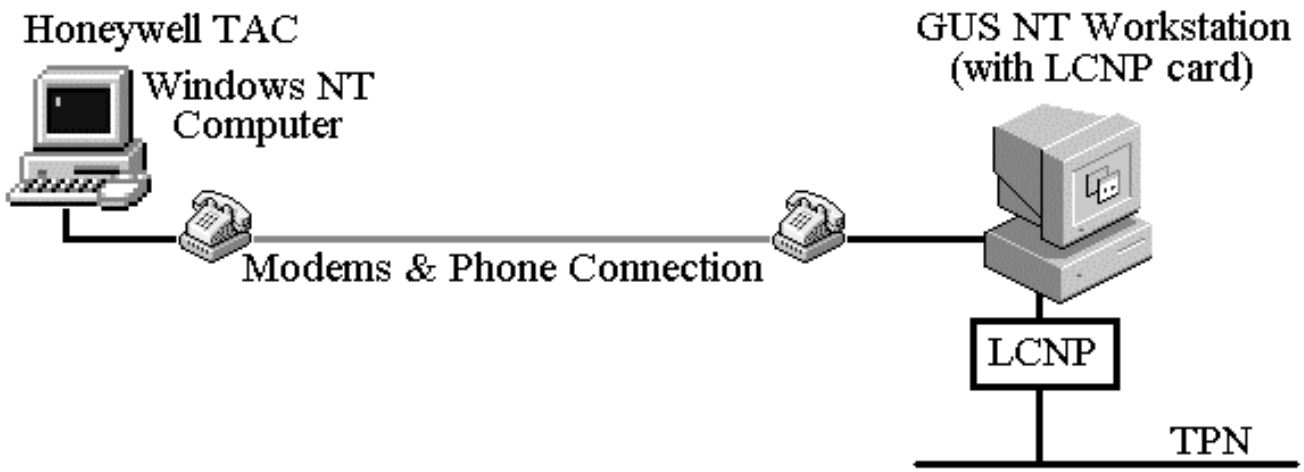


Remote Engineering and Operations

Remote User Roles

Remote Honeywell TAC

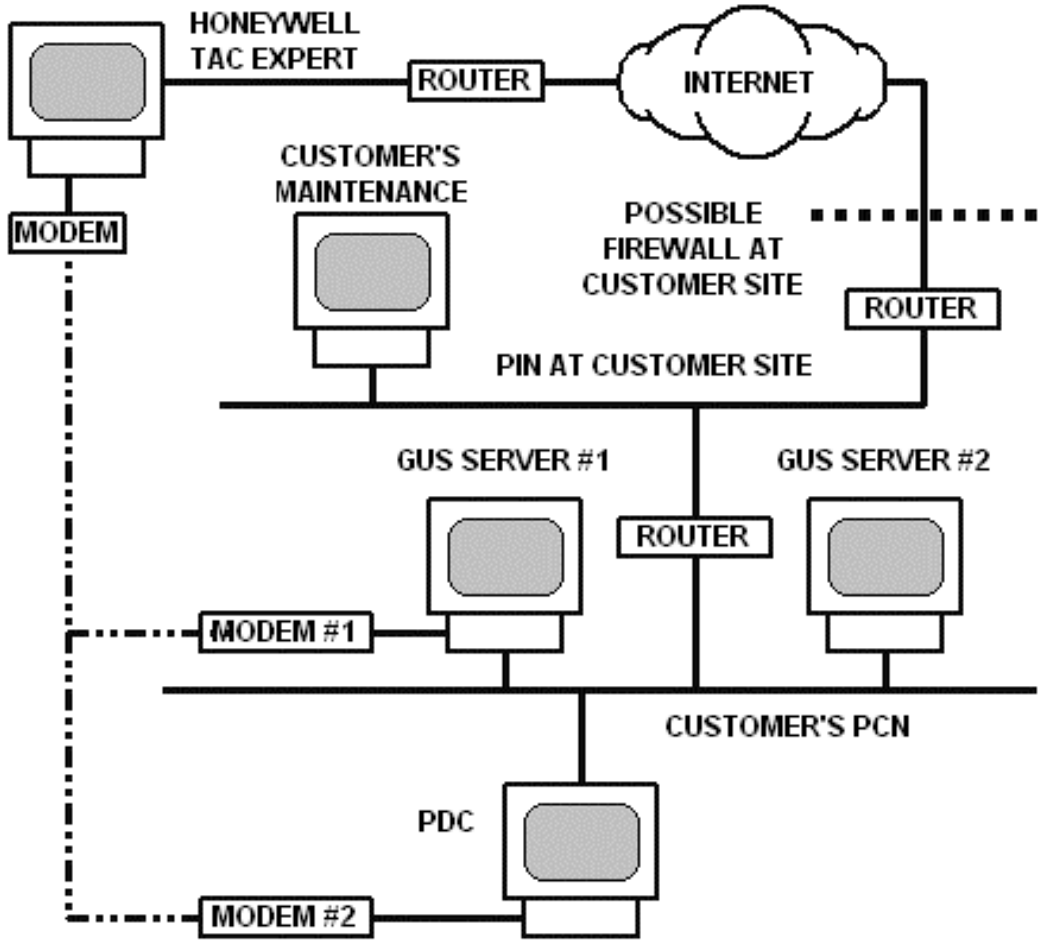
- Located many miles away
- Assist an engineer, administrator, or maintenance technician
- TAC expert can't use keyboard or mouse - only acts as an observer
- If your company expects to use this service, contact TAC (800-822-7673) ***before*** the service is needed so a test connection can be established.



Remote Engineering and Operations

Topology / Connections

- Maintenance to any GUS using the intranet
- TAC to any GUS using the internet (not likely because of firewall)
- TAC to GUS #1using a modem connected to the GUS
- TAC to any GUS using a modem connected to the PDC (RAS)



Remote Engineering and Operations

Other Functions

- File Transfer
  Transfer files between the GUS client and the GUS server

- Voice/Text Chat
  Voice chat if hardware available
  Text chat if hardware not available

- Remote Print
  Print requests made on the GUS server go to the client's printer
  OR
  Print requests made on the client go to the GUS server's printer

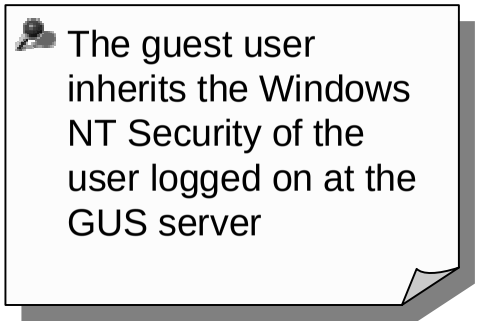
- Remote Clipboard
  Data put on the server clipboard will also be put on the client clipboard

Remote Engineering and Operations

Security

Two Modes of Operation:

- **Manned** - The host must acknowledge guest request.
  Ex: Honeywell TAC assistance
- **Unmanned** - Acknowledgement not required; host is not needed.
  Ex: Remote Operations



Remote Engineering and Operations

Remote User Roles

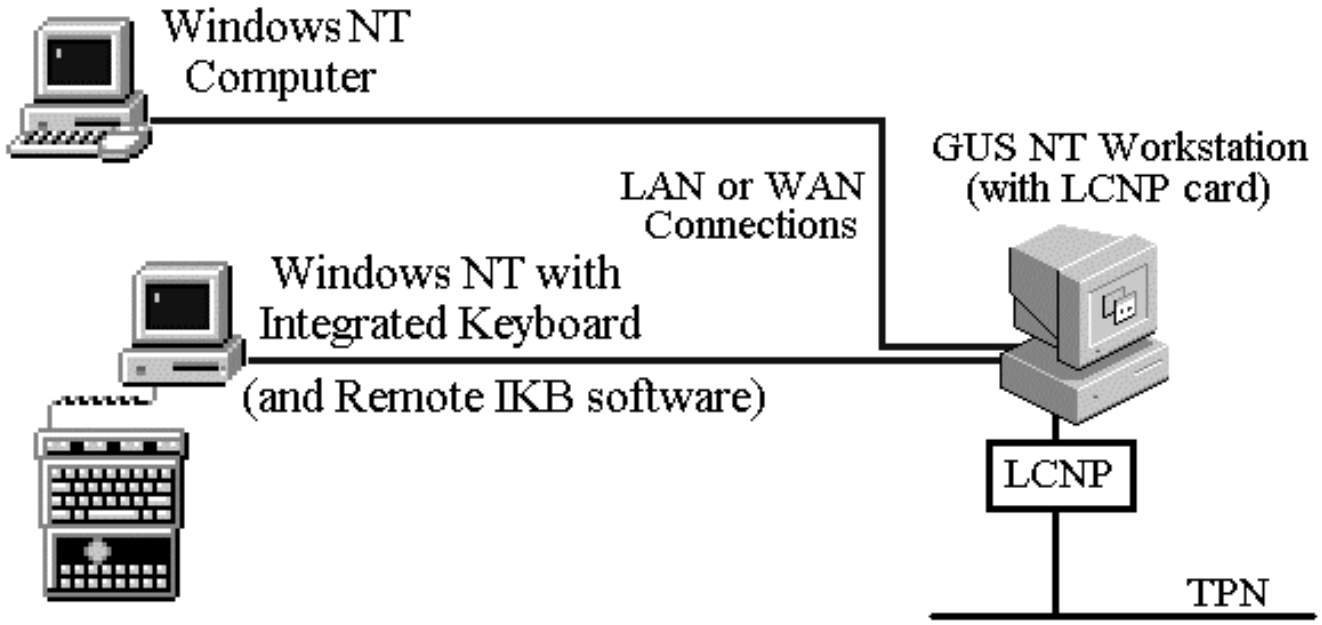
Some Basics

- There are two versions of Carbon Copy 32.
  - A Host application part of GUS Base software - limited to accepting calls.
  - A Full-Featured application for installation on GUS Clients only.
- Can't use commercial version of Carbon Copy.
  - Honeywell features are added.
- Carbon Copy user (guest) shares the resources of GUS station. Either user can operate keyboard and mouse on the GUS station on first-come, first-served basis.
- The GUS Workstation contains the GUS Server software (operated by the Host).
- The Remote PC (can be a GUS) contains the GUS Client (operated by a Guest).
- Modem connections are only supported with connections to TAC.

Remote Engineering and Operations

There are Two Possible Keyboards

- Standard QWERTY keyboard
- Integrated Keyboard.



Remote Engineering and Operations

Hardware

Optional Hardware Components

Integrated Keyboard

- Useful for GUS Client in remote maintenance or roving operator scenarios.
- Must use Windows NT and has IKB software loaded and configured.
- A laptop meeting minimum hardware requirements.

Printer

- Installed on GUS Client to print data from the GUS Server.
- GUS Server must have printer previously installed.
- Both client and server should each use the same printer driver.

Modem

- TAC can use on GUS Server when access through a firewall is not allowed.
- 56 Kbps recommended.

See the *Remote GUS User's Guide* for hardware component details.

Remote Engineering and Operations

Hardware

Standard Hardware Components (1)

GUS Server

- The server must be a standard GUS Workstation containing an LCNP board. It is physically connected to a LAN or WAN using TCP/IP protocol.
- An optional modem may be used for a Honeywell TAC connection when access through a firewall is not allowed.
- Minimum hardware requirements are:
  - CPU: 300 MHz
  - RAM: 64 MB
  - LAN 10/100 Base-T
  - Video 1024 by 768 (single screen)

See the *Remote GUS User's Guide* for hardware component details.

Remote Engineering and Operations

Hardware

Standard Hardware Components (2)

GUS Client

- The client can be a PC using Windows NT or a GUS Workstation. It must be physically connected to a LAN or WAN using TCP/IP protocol.
- A laptop meeting minimum hardware requirements.
- Minimum hardware requirements are:
  - CPU: 300 MHz
  - RAM: 64 MB
  - LAN 10/100 Base-T
  - Video 1024 by 768 (single screen)

See the *Remote GUS User's Guide* for hardware component details.