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TECHNOTE: Communications Protocols

Machine Communications Protocol

The Memex Ax9150 and Mx1053 include an Ax2200 Ethernet daughter card utilizing a Lantronix WiPort NR Embedded Ethernet Device Server. The Device Server is used as a serial to Ethernet Bridge which packetizes serial data originating from the Ax9150 or Mx1053 and forwards the packets to the polling AxConfig server.

The transport protocol is TCP with assigned ports

Port 1234 is used for OEE data transfer
Port 4444 is used for DNC part program transfer

The UDP protocol on Port 30718 is used for polling the machine interface

Specifications:
UMI Network Interface
Interface: Ethernet 10/100Base-TX
Protocols: TCP/IP,UDP/IP

(unused protocols- ARP, ICMP, SNMP, TFTP, Telnet, DHCP, BOOTP, HTTP and AutoIP)

Internet Protocol

Connectivity via Bomgar client and Bomgar appliance

Bomgar is a remote control system for computer systems that enable support staff to take control of client computers to offer assistance. The system works by connecting the host and client to a racked appliance through firewalls. The desktop sharing and file transfer works behind firewalls to enable remote support. Bomgar's solutions are geared toward enterprises.

Transport protocol is IP (Internet Protocol)
The software uses a 256-bit AES SSL encryption and supports Mac, Linux, Windows Mobile, Blackberry and Windows PCs.
The customer-initiated session counts as outbound traffic, similar to browsing the web. Since a firewall is designed to allow outbound traffic while blocking inbound traffic, Bomgar can connect without requiring changes to existing firewall configuration.

Memex Bomgar appliance is located at 66.207.120.171
Bomgar appliance on standard TCP ports 80 and 443

The average bandwidth per remote control session hovers between 0Kb and 40Kb per second, depending on what the technician is doing.