OT Network Communication with the Outside World

Currently, OT Networks data communications are constrained to communicating with a control room, and outbound-only fax via a POTS line. (T.39 faxing on the IP network, or inbound receipt of faxes can create security holes.)

Quantalytics provides 2 methods to safely add outbound traffic to IT networks from within an OT Network.

1. **Q-Proxy**. The Q-Proxy, built on Squid, can be configured for selective OT outbound-only traffic. All inbound traffic, including ack packets, can be sink-holed by the Q-Proxy. This opens up the ability to use SNMP, among other network protocols, to reach the IT network from within the OT Network without having timeout problems. The Q-Proxy, again, can be configured to block ALL inbound traffic to the OT network, thereby permitting integration with the IT Network, and the passing of selective outbound traffic only.

2. **MQTT** notifications. MQTT is a relatively obscure communications protocol. Unlike other communications protocols, MQTT is one-way only - Outbound. Using IPTables, it is possible to multi-home Quantalytics appliances so that MQTT messages are sent out of the OT Network to the receiving **Q-MQTT** appliance on the IT Network. IPTables for these MQTT transmitting appliances are configured via a web interface in Webmin, our network appliance housekeeping package.

The Q-MQTT appliance receives the MQTT messages, and retransmits them as e-mails or SMS to recipients on the IT Network, and, beyond, if appropriate.

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