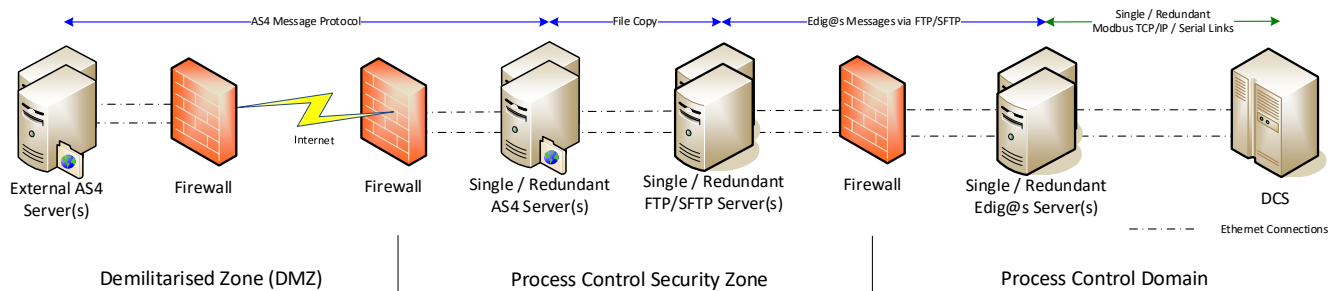


Intelligent Information: Edig@s Messaging Gateway



Edig@s Messaging Gateway Schematic

Overview

We have engineered a number of Microsoft Windows based solutions for interfacing Edig@s messages with a DCS (Distributed Control System).

Edig@s messages are a global standard of the Energy Industries and, in our applications, have been used by customers and suppliers to determine energy flow requirements over time periods.

External customers send a required daily energy flow profile. The Edig@s gateway converts these messages into analogue and digital data for the DCS and passes this information over a Modbus gateway. The DCS determines if this can be achieved, by considering process plant constraints, and responds to the Edig@s servers. These servers in turn convert the DCS response to an Edig@s message which is sent back to the customer. This is then either accepted by the customer or a new required profile is sent.

Edig@s messages can also be initiated by the DCS to send to the customer, e.g., actual flow delivery profile. This allows the customer to revise the required flow profile based on actual deliveries; thus, the flow requirement can compensate for unforeseen events e.g., plant trips.

Main Features

- Solution is based on widely available hardware / operating system software
- Security / availability of solution can be customized to the clients' requirements, e.g., FTP / Edig@s software can be hosted on the same server, single / redundant servers can be utilised
- The schematic above is a high security / availability solution; all data exchanges are initiated from the Process Control Domain, this domain cannot receive unsolicited messages or network data
- Edig@s messaging gateway handles all time zone information and daylight-saving hour changes
- Edig@s message format can either be version 3 (text) or versions 4/5 (XML)
- All Edig@s messages are human readable and archived, so can be reviewed at a later date to carry out sequence of event investigations
- Monitoring carried out in the DCS so that if any element in the messaging gateway fails this is alarmed to the operators
- Modbus link to the DCS can be either TCP/IP or serial (RS232/422/485) and can be single or redundant links. These links do not compromise DCS security
- One-off project costs; no on-going licence fees

