SMART ProGate ICCP

(Autonomic Real Time Multiprotocol Gateway)

Inter-Control Centre Communication Protocol (ICCP) is a utility industry international standard communication protocol designed to facilitate data exchange between Energy Management Systems (EMS) or SCADA systems. ICCP is the common name for TASE.2, the Telecommunication Application Service Element defined in ISO/IEC 60870-6. The gateway which is developed can be used as network interface with ICCP network for SCADA Control Centres to exchange real time data between Control Centres connected through different Wide Area Networks (WAN's).

The IEC 60870-6 specifies a method of exchanging time-critical control centre data through wide- and local-area networks using a full ISO compliant protocol stack. This standard includes the exchange of real-time data indications, control operations, time series data, scheduling and accounting information, remote program control and event notifications.

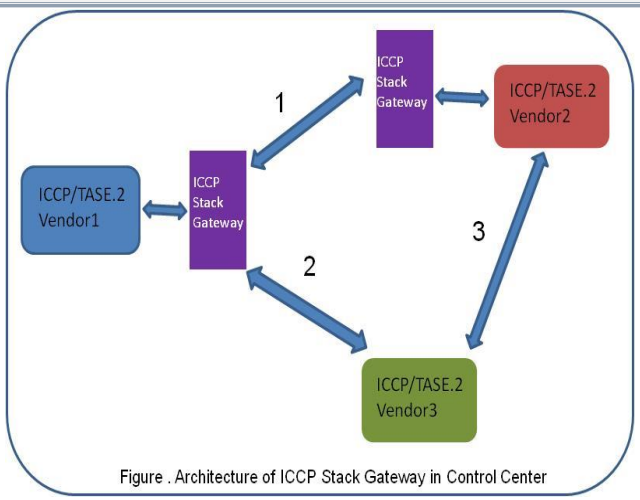

Figure . Architecture of ICCP Stack Gateway in Control Center

Technical Specification

- Operating System: RHEL ver 5.5
- Database: MySQL 5.5
- Web Server: Tomcat Apache
- Communication Interface: IPv4 or IPv6.

Tools & Technologies

NetBeans, C, Java, JSP and Servlet

Conformance Blocks

Block 1: Periodic Power System Data
Block2: Extended DataSet Condition Monitoring
Block 3 : Block Data Transfer
Block 4: Information Messages
Block 5: Device Control
Block 6: Program Control
Block 7: Event Reporting
Block 8: Additional User Objects
Block 9: Time Series Data

Unique Features

- Supports all blocks from 1 to 9 of IEC 60870-6 TASE.2 for both clients and servers.
- Supports TCP/IP as transport.
- Supports connections to multiple ICCP (IEC 60870-6-503 TASE.2) servers.
- Acts as an ICCP (IEC 60870-6-503 TASE.2) client
- Operates over TCP/IP Ethernet networks for local and wide area networks.
- A user interface to ICCP for user and data management of ICCP links.

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