Manual 01 Revision 49 Preview

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- Manual 01 R49 will feature both periodic review content (administrative and compliance updates) and Quick Fix updates (more substantial in nature). The substantial updates are:

  - Fleshing out of the AltSCADA backup communications methodology

 - Description of *Member* View-Only Mode added to the existing "View-Only" text

3.2.4.1 Requirements for Electronic Alternate Data Communication Method

AltSCADA

PJM provides an alternative communication path as an emergency backup for ICCP links, in particular between TOs and PJM. Using relatively simple and robust technologies, such as sftp (PJM SecureShare), simple file formats (.CSV), and low periodicity updates(max read every 5 minutes), keeps the initial setup and maintenance very low while also being independent and separate from many core SCADA components. This system can bridge events where the TO ICCP server, the networking (PJMnet) or the PJM ICCP client have failed, including potentially cyber attacks.

During use, members package a snapshot of all data mapped through the relevant ICCP link, by any means optimal for them, into a compliant CSV file, which is uploaded via SecureShare to PJM, which PJM can process as a full SCADA update. This would allow for sufficient updates to satisfy critical SCADA functionality, such as supporting RTAs and real-time markets, while SCADA or network fault conditions were repaired. TOs must at least be receiving a nominal degree of updates from substations and RTUs and PJM's core SCADA system data processing must still be operational. During actual emergency use of the AltSCADA system, TOs should continue to verbally communicate significant events per 3.2.4.2.

AltSCADA is currently optional for all PJM TOs, but all are encouraged to participate. Interested parties should reach out to EMSSupport@pjm.com for details, setup and testing. PJM may expand usage in the future to include GOs or similarly send PJM data snapshots to members.
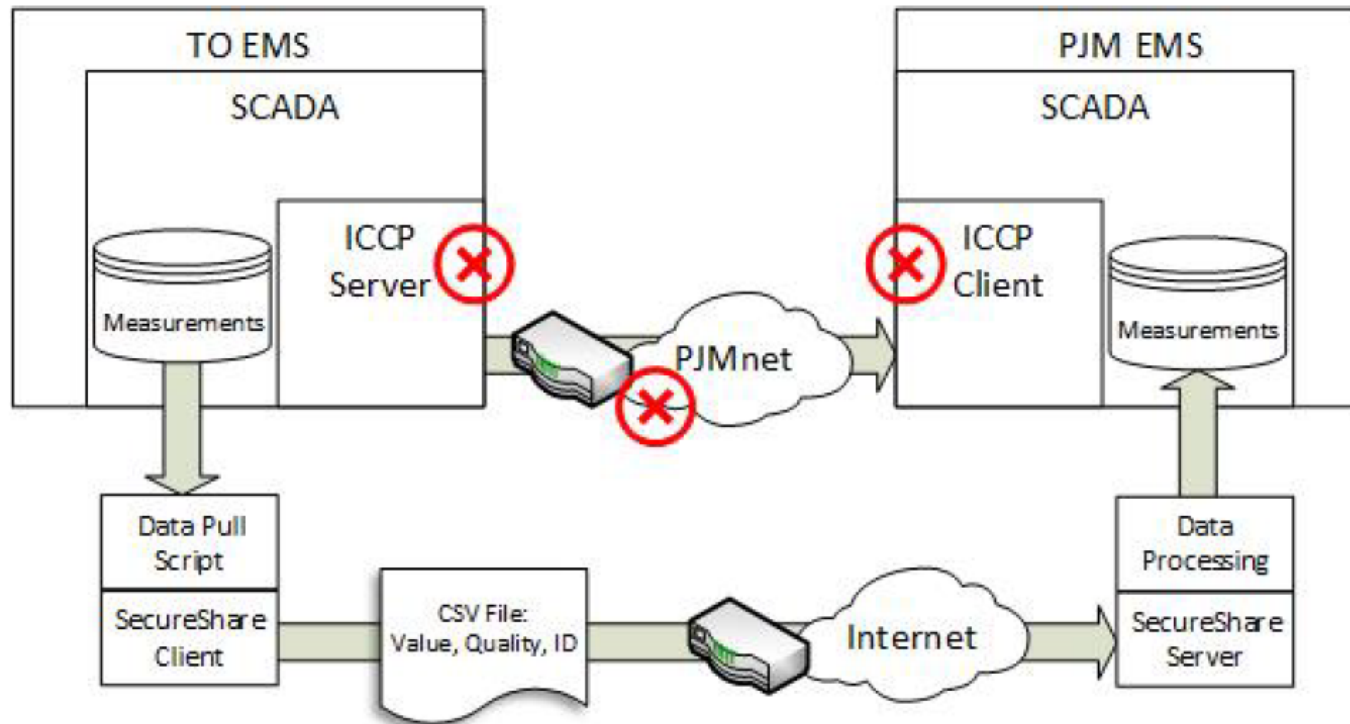
4. Loss of ICCP ride-through capabilities

   a. In the event of failed ICCP datalinks, PJM EMS and PJM Member TO's EMS should have functionality to use the "last good data" received for Real Time Assessments.

   b. PJM and PJM Member TOs should have the ability to put incoming ICCP links into a "read-only" mode. This is referred to as "View-Only Mode" at PJM, and is utilized when ICCP datalinks are on a planned outage. Putting an ICCP datalink in this mode allows ~~the~~ system operators to see the data, but not have that data affect the Real-time Assessments until after the planned outage is completed and the data integrity is confirmed by support staff and/or system operatoters. The PJM View-Only Mode will extend protection against incorrect data to all output ICCP datalinks receiving any data points of the PJM input ICCP datalink switched to the mode. For example if an input datalink to PJM is put in View-Only Mode for a planned maintenance event, an output datalink from PJM to another entity with any subset of that data will see the data as holding the last good value until the input link is taken out of View-Only Mode. PJM and members will coordinate to reduce the total time in View-Only Mode. PJM offers an ICCP status point that includes View-Only Mode status in addition to the standard link up/down status, so that downstream recipients of that data can differentiate between planned use of View-Only Mode and actual telemetry issues in real-time without having to reference planned maintenance schedules.

   c. PJM and PJM Member TOs should utilize zonal state estimation to minimize and isolate the area(s) of solution divergence.

- October-November run through stakeholder process.

- Will come back next SOS for a full read.

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