

Lesson Learned

Loss of ICCP – Local Control Center Notifications

Primary Interest Groups

Balancing Authorities (BAs)
Transmission Operators (TOPs)
Reliability Coordinators (RCs)

Problem Statement

The loss of ICCP connectivity at one entity's ("Entity A") control center resulted in a loss of the state estimator at another entity's ("Entity B") control center.

The RC in the area is responsible for determining what notifications are required. Typically, the RC will notify adjacent TOPs on behalf of the entity experiencing the loss of ICCP.

Details

Entity A's control center experienced multiple ICCP communication failures with external entities. These failures were the result of a scheduled patch update being applied on the control center ICCP firewall.

Due to the ICCP failures, Entity B's State Estimator tool failed to solve because it was not receiving ICCP data from Entity A, resulting in a loss of their state estimator monitoring capabilities. Entity B's EMS support began troubleshooting and identified that the issue was external to their system. They restored the last good values from Entity A and their State Estimator model began to solve again. Entity B's loss of monitoring lasted for approximately 35 minutes.

Entity B was the only entity in the area that experienced a failure of its state estimator during Entity A's loss of ICCP data. If the RC had made notifications to all area TOPs instead of just the adjacent TOPs to Entity A regarding its ICCP loss, then Entity B would have been able to avoid unnecessary troubleshooting activities that delayed their identification on how to restore their State Estimator tool.

Corrective Actions

Entity A returned the firewall to its original state before the event to stabilize the ICCP link.

Entity B restored the last good values from Entity A to their State Estimator model.

Entity A is investigating the reason for the unexpected complications to their ICCP link connectivity resulting from the application of the scheduled firewall patch.

Lesson Learned

With the increasing reliance on real-time data and the need to have a state estimator solution that most closely models actual conditions, entities are becoming more and more dependent on data from outside their TOP areas to achieve accurate computer models for analyzing and planning system operations.

As a result of this event, RCs should be encouraged to notify all BAs and TOPS in the area, and not just those adjacent to the entity that has lost its ICCP, to better allow for other's EMS support teams to make appropriate adjustments to their systems quickly and accordingly.

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