

Security Objective(s)

To prevent instability, uncontrolled separation, or cascading outages that adversely affect the reliability of the Interconnection by ensuring prompt action to prevent or mitigate such occurrences.

Regional Risk Connections

- Loss of data exchange capability
- Loss of situational awareness and system control
- Loss or lack of redundancy and diversity
 - Inadequate understanding or application of redundancy
- Inadequate understanding of control center infrastructures

Industry Research



CMEP Practice
Guide TOP-001-4 an

WECC Intent

The potential failure points and guidance questions give general direction to registered entities for assessing risk while designing internal controls specific to NERC Reliability Standards and Requirements. The Registered Entity may use this document as a starting point to determine entity risk and it is not WECC's intent to establish a standard or baseline for entity risk assessment or controls design.

Note: Guidance Questions help an entity understand and document its controls. Any responses, including lack of affirmative feedback, will have no effect on an entity's demonstration of compliance at audit.

**Please send feedback to ICE@WECC.org with suggestions on Potential Failure Points & Guidance Questions.*

Potential Failure Points and Guidance Questions

TOP-001-4 R20, R23, & IRO-002-4 R2

Potential Failure Point (R20, R23, IRO R2): Failure to develop a process to identify data exchange capabilities.

1. How has your entity identified the systems used in data exchange operations?

Potential Failure Point (R20, R23, IRO R2): Failure to develop guidance to define redundancy and diversity.

1. How has your entity defined redundancy and diversity?
 - a. How has your entity defined equipment diversity?
 - i. For fiber cable media pathways?
 - ii. For infrastructure components such as networks, servers, and racks?
 - b. How has your entity defined physical separation?
 - i. Has there been a review of cables in the same tray or conduit?
 - ii. Has there been a review of servers in the same rack?
2. Has there been a review of logical separation of the infrastructure?

Potential Failure Point (R20, R23, IRO R2): Failure to develop a process to identify data exchange infrastructure.

1. How has your entity used TOP-003 data specification criteria to identify infrastructure components?
2. How has your entity identified infrastructure components that support data exchange capabilities?
 - a. Does it include power subsystems used to power data components?
 - b. Does the identification include all power (generator, UPS, ATS, PDU, etc.), network and data components within the control center wall boundary?

Potential Failure Point (R20, R23, IRO R2): Failure to develop a process to identify data exchange obligations and needs.

1. How has your entity identified the Reliability Coordinator and Balancing Authority to whom it must supply data?
2. How has your entity identified the entities it needs data from for it to perform its Real-time Monitoring and Real-time Assessments?

TOP-001-4 R21, R24 & IRO-002-4 R3

Potential Failure Point (R21, R24, IRO R3): Failure to have a procedure on how to perform a test.

1. How has your entity outlined how testing is to be done?

Potential Failure Point (R21, R24, IRO R3): Failure to define redundant functionality as it relates to test criteria.

1. How has your entity outlined testing criteria to validate redundant functionality?
 - a. Do the testing criteria include all infrastructure identified in support of data exchange capabilities?



- b. How are test results documented?
- 2. How has your entity defined an unsuccessful test?

Potential Failure Point (R21, R24, IRO R3): Failure to define or communicate start and end dates for tracking of test and restoration efforts.

- 1. How has your entity established start and end time for testing?
 - a. What controls does the entity have in place to ensure testing occurs within the 90-day window?
- 2. How has your entity established start and end time for restoration efforts?
 - a. What controls does the entity have in place to ensure restoration occurs within the 2-hour timeframe?

Potential Failure Point (R21, R24, IRO R3): Failure to develop an action plan to restore redundant functionality.

- 1. How has your entity outlined the plan of action for responding to an unsuccessful test?

