Supporting Redundancy to Increase 1722 Reliability

High Reliability

- Failure Rate
  - maximize Mean Time Between Failures (MTBF)
- Failure Detection
  - manual or automatic recovery initiation
- Failure Diagnosis
  - determine the exact failure mode
- Failure Recovery
  - instant or delayed
  - full or partial

Types of 1722 Failures

- Link failure
  - Bridge / Wireless Access Point
  - Cable / Wireless Interference
- Endpoint failure
  - Listener
  - Talker

Bridge Failure

- Looks like a talker failure to the listener, and sometimes can be treated as such.
- 1722 / 1722.1 has no knowledge of bridges; therefore, bridge redundancy is out of scope for these standards.

Cable / Wireless Failure

- Looks like a talker failure to the listener, and sometimes can be treated as such.
- Knowledge of redundant network paths out of scope for 1722 /1722.1 since these standards have no knowledge the physical network topology.

Listener Failure

- Box physically replaced - needs config - maybe handled by a smart controller
- Redundant listener already in network - needs config - maybe handled by a smart controller
- Redundant listener already in network at receiving the stream - switchover handled by listener equipment (outside of 1722/1772.1)

Talker Failure

- Box physically replaced - needs config - maybe handled by smart controller
- Redundant talker already in network but not streaming - needs config - maybe handled by smart controller
- Redundant talker already in network and producing redundant stream - need to be able to advertise this in a standardized way

Backup Streams

- Proposed1722.1 Stream Attributes
  - For a stream that has a backup stream
    - BACKUP_STREAM_ID
  - For a stream that is a backup stream
    - BACKED_UP_STREAM_ID
    - BACKUP_IS_IDENTICAL