Field end-to-end calibration and testing for synchrophasor system

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OBJECTIVES
- Enable commissioning of PMUs
- Field calibration
- Periodic maintenance tests
- Application testing
- Troubleshooting

ELEMENTS OF THE SYNCHROPHASOR SYSTEM

SYNCHROPHASOR LANDSCAPE

SPIRAL LIFE CYCLE MODEL

USE CASE I
FIELD CALIBRATION
- Aim of this use case is implementation of tests to validate the PMU device calibration
- Tests are conducted in the field
- Calibration follows the IEEE C37.118.1 standard
- Two different groups of tests
  - Steady state tests
  - Dynamic state tests

USE CASE II
IN-SERVICE PMU TESTING
- Aim of this use case is to evaluate synchrophasor system as a complete solution
- A device called “Gold PMU” will be developed to serve as a reference PMU
- Two different groups of tests
  - Field acceptance tests
  - System integration tests

REFERENCES