Standardized Software Architecture
(Preliminary Set of Requirements & Objectives)

- Pervasive software architectures
- Scalable and reconfigurable architectures
- Consistent with SI hardware specifications (SIWG)
- Supports multiple processing platforms (CPU, FPGA, GPU, etc.)
- Supports multiple standards (VXI, PXI, LXI, AXI, PCIe, Ethernet, etc.)
- Addresses User Interfaces (UI, GUI, etc.)
- Addresses TPS portability, reuse, and TPS development
- Supports software reuse (organic, 3rd Party, etc.)
- Addresses end-user application development (organic)
- Addresses concurrent operation of instruments
- Allows mechanisms for protecting Intellectual Property (IP)
- Supports hardware "swapability"
- Supports multiple software development environments
- Supports incorporating IVI classes
- Addresses backward compatibility with legacy instruments
- Addresses "forward" looking compatibility
- Address RF, Low Frequency, and Digital instrumentation

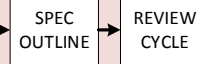# Standardized Software Architecture (Preliminary Project Plan)

PHASE 1 — REQUIREMENTS ANALYSIS
PHASE 2 — SPEC OUTLINE
PHASE 3 — TRADE STUDIES
PHASE 4 — SPEC DEVELOP
PHASE 5 — ATC REVIEW & APPROVAL

Phase 1 boxes: ESTABLISH GROUP → REQTS ANALYSIS → REVIEW CYCLE → REQTS DOCUMENT
- INITIAL TELECON
- TASK ASSIGNMENTS
- ESTABLISH SCHEDULE
- ESTABLISH "APPROVAL" CRITERIA
- ESTABLISH DATA SHARING "METHOD"
- BI-WEEKLY TELECONS
- REQT DOCUMENTATION
- CONSOLIDATE REQTS
- SUMMARY REVIEW
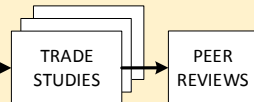- APPROVE REQTS DOC

Phase 2 boxes: SPEC OUTLINE → REVIEW CYCLE
- BI-WEEKLY TELECONS
- SPECIFICATION OUTLINE
- SUMMARY REVIEW

Phase 3 boxes: TRADE STUDIES → PEER REVIEWS
- TASK ASSIGNMENTS
- BI-WEEKLY TELECONS
- DATA CONSOLIDATION
- PEER REVIEWS
- SPECIFICATION ADJUSTMENT
- SUMMARY REVIEW

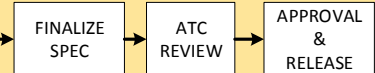**Phase 4 boxes:** GENERATE SPEC → PEER REVIEWS
- CONSOLIDATE SPECIFICATION
- BI-WEEKLY TELECONS
- PEER REVIEWS
- SUMMARY REVIEW

Phase 5 boxes: FINALIZE SPEC → ATC REVIEW → APPROVAL & RELEASE
- FINALIZE DRAFT SPECIFICATION
- PEER REVIEWS
- COMMITTEE REVIEW
- APPROVAL AND RELEASE

TIMELINE - ?????