EVLA System PDR
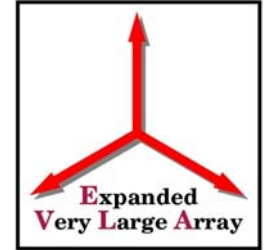
Operations Requirements
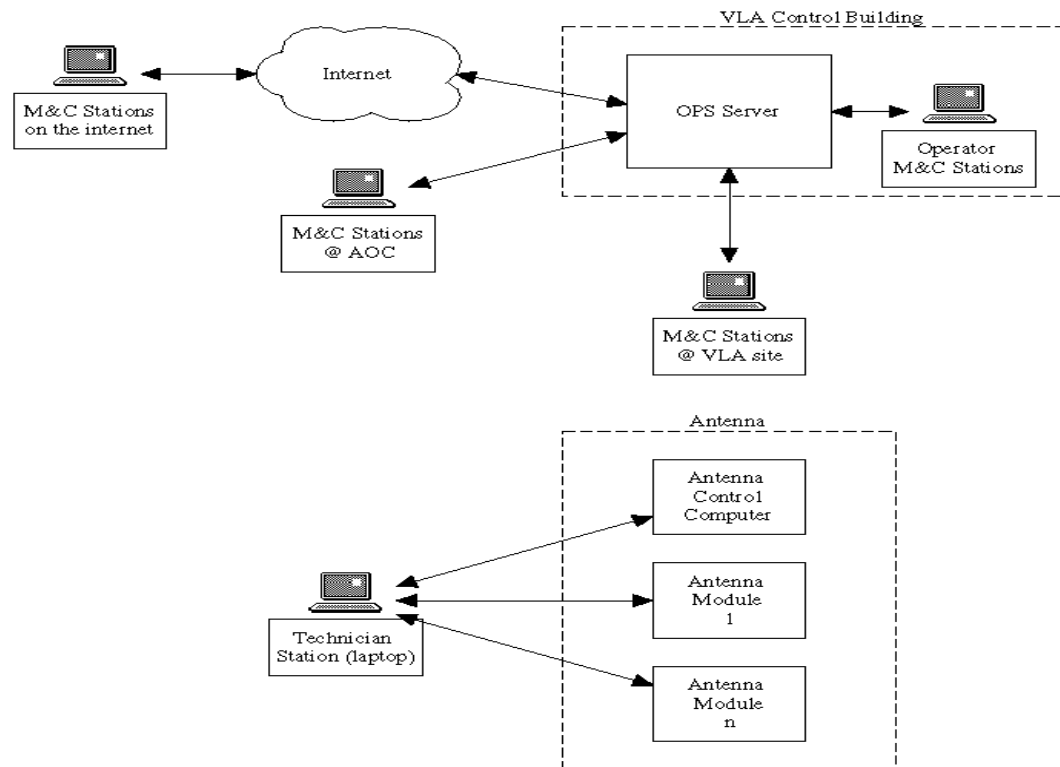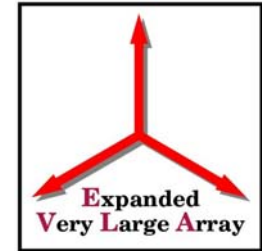
Operations Requirements

- Operations Requirements Document (Initial Draft)
  - http://www.aoc.nrao.edu/evla/techdocs/computer/workdocs/index.shtml
  - Currently in the review process
- Purpose of the document
  - Identify the top-level requirements
- Near-term plan
  - Analyze and incorporate comments, refine and broaden scope of document
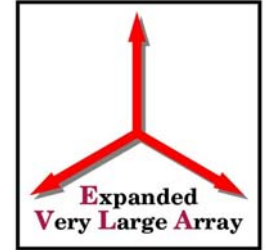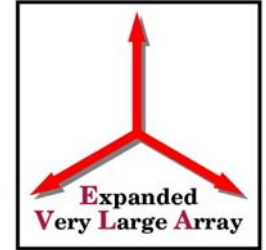 - Develop an initial design concept

Clients

Requirements Overview

- Target Platforms
  - Commodity PCs/Linux/Windows
  - Sun/Solaris
  - Macintosh/Mac OS (low priority)
- Security
  - Must be built into the system from the start
  - Users must have and provide a unique ID
  - Each user will have a set of access properties
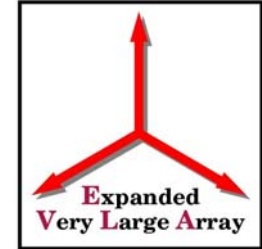 - Command and system access blocking

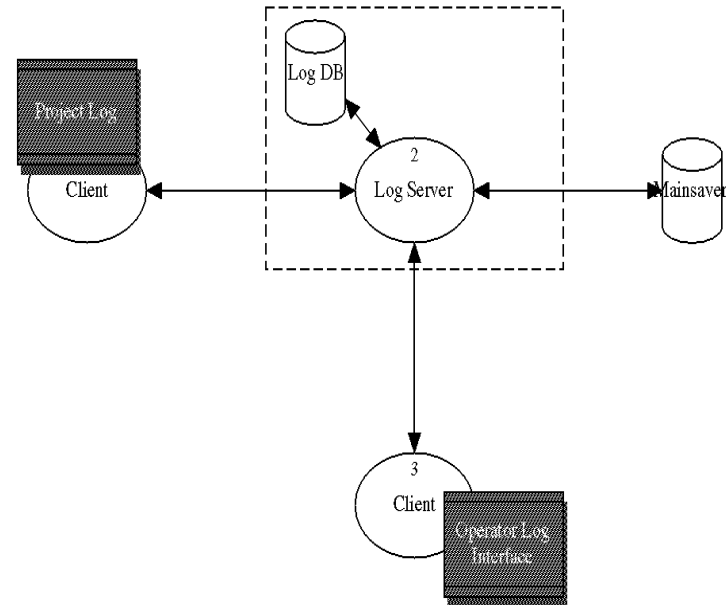# Requirements Overview (cont.)

- Remote Observing
  - In the future operators may be stationed at the AOC
  - Either web-based or a downloadable/installable client
  - Should use a single code base
- Scheduling
  - Types: Fixed, Dynamic, Goal-oriented, "scan"-level
  - M&C and e2e
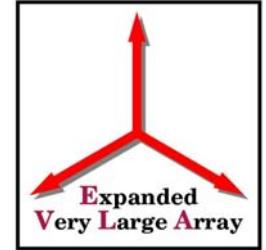
Requirements Overview (cont.)

- Operator Log
  - Submit log entries
  - Query the logs
  - Generate reports from the log (e.g., Project log)
  - Link a log entry to a maintenance entry
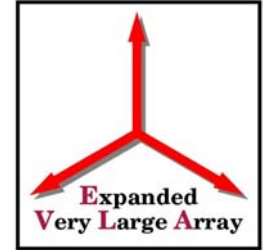 - User customization

Requirements Overview (cont.)

- ## M&C Displays
  - A number of displays will be required
  - Easily created and integrated into the system
  - Quick look display with plotting ability
- ## Warning and Error Messages
  - Should be limited to relevant messages only
  - Attributes: severity, origin, cause, action, trigger, etc.
  - The attributes should be easily modified and not hard-coded

What's Next?

- Items requiring near-term resolution
  - Level of remote control of the array
  - Delineation of responsibilities between M&C and e2e to prevent duplication of effort
- Near-term design & implementation issues
  - Testbed using VLA monitor data stream delivered via the CMP
  - Investigate and Select a protocol for monitor & command data flows between operator stations and the real-time core

More Features?

- Other features to consider
  - Display builder
    - Users could create and import their own displays
  - Simulator
    - Aide in software testing and operator training

Questions?