EVLA Monitor & Control
Contents

• Transition System & Final System
• EVLA M&C Components
• Carryover from Transition System to Final System
• Architecture & Data Flows – Transition & Final System
• Selected Subsystems
  – The Alert Subsystem
  – Correlator Backend, Fast Formatter, TelCal, Post-Processing
  – User Interfaces – Screen Shots
Transition System vs. Final System

- In broad terms, there will be two major versions of the EVLA Monitor & Control System – a Transition System and a Final System
- The Transition System bridges the gap between the old Modcomp-based VLA Control System and the final version of the EVLA Monitor & Control System, while maintaining operational capabilities
- The Transition System will be responsible for controlling a wide array of old and new hardware – EVLA Antennas, VLA Antennas, the VLA Correlator, and the prototype WIDAR correlator
- The Transition System will incrementally shift its software architecture toward the desired architecture of the final system
Selected Transition System Milestones

- Support for EVLA antenna hardware development
- Use of EVLA Antennas in scientific observations
  - Monitor and control of EVLA antennas
- Retirement of the Modcomp-based VLA control system
  - Monitor and control of VLA antennas (nearly done)
  - Monitor and control of VLA correlator
  - Distribution of VLA correlator output within EVLA M&C
  - Formation & writing of VLA format archive records
- Support WIDAR prototype correlator
- Implement target architecture of final system
Retirement of the Modcomp-based VLA control system

- Monitor and control of VLA antennas – end of Q2 2006
- Monitor and control of VLA correlator – Q4 2006
- Distribution of VLA correlator output – Q4 2006
- Formation & writing of VLA format archive records – Q1 2007
- Parallel operation & testing – Q2 2007
Current State of the Transition System
Transition vs. Final System Components & Carryover
EVLA M&C Transition System
Data Flows & Status
The Alert Subsystem

Bryan Butler & Rich Moeser
EVLA M&C Final System

Data Flows
Fast Formatter, TelCal, Post-Processing

Worst Case Scenario

WIDAR Correlator
Baseline Boards
160

CBE
50 to 100 nodes?

Switch
Switch
Switch

FF node 1
FF node 2
FF node 3
FF node 4
FF node 5
FF node 6

Switch

Observation Status Tool
Quick Look Pipeline

Default Archive Image Pipeline

EVLAArchive

DCAF

Fast Formatter final node

Shared Memory (?)

TelCal

Binary Data Stream

Meta-data

- cost, < $100K

--- needed?
EVLA M&C, Deployment
Screenshot of the Array Operators Screen
A module subsystem screen – the ACU Screen
Screenshot of the Device Browser
Latest software releases

• Stable builds web page:
  http://www.aoc.nrao.edu/asg-internal/jnlp/