EVLA Monitor and Control

Monitor & Control Transition
Antennas

• Antennas – Front Ends
  ➢ Not all Front Ends Will Be EVLA Until 2010
    ◆ F320 FE Transition Module
    ◆ Interfaces up to Two F14’s
    ◆ Uses A/D Design by George Peck
    ◆ In-House Design Simulates VLA Dataset
Antennas

• Antennas – Wye Monitor System
  ➢ M302 Utility Interface Replacement
    ◆ Wye-Com Cable Will Disappear
    ◆ Reduce Two M&C Systems into One
  ➢ Consolidate Functions to Their Devices
    ◆ Reduce Number of External Functions
Antennas

- Antennas – ACU and FRM Systems
  - ACU & FRM System Replacements Not Part of EVLA Phase I
  - Bob Broilo Designed Interface
    - Interface is Between MIB and DCS System
  - ACU & FRM if Replaced Early Will be Paid by Operations or EVLA Contingency
Control Building

• Control Building To Antennas
  ➢ EVLA Antennas Connect to EVLA M&C
    ◆ Includes Transition Modules
  ➢ SLC Operates VLA Antennas
    ◆ Operates EVLA at VLA Baseband Until New Correlator is Installed
    ◆ No VLA Baseband Transition for the New Correlator
Control Building

• Control Building to Master Rack
  ➢ EVLA Master Rack Connected to EVLA M&C
  ➢ SLC Controls VLA Master Rack
  ➢ SLC is Connected to Modcomps
  ◆ Upon Modcomp Retirement SLC will be Placed under Control of EVLA M&C
VLA Monitor & Control Hardware CDR

October 20, 2004
Control Building

• Weather Station
  ➢ Connected to VLA Master Rack
  ➢ Interfaces Re-Designed for EVLA
    ◆ Modernized Weather Instrumentation
    ◆ Fiber Run to Weather Station in Place
Control Building

• Control Building to Wye Monitor System
  ➢ HVACs, UPS’s, and Generators
    ◆ Interfaces Re-Designed for EVLA
    ◆ Fiber Runs to Generator Building, Etc.
Control Building

• Control Building to Other
  ➢ Atmospheric Phase Interferometer (API)
    ◆ Modernized API for EVLA
  ➢ VLBI/VLBA Racks
    ◆ Interface Hooks to EVLA M&C
Control Building

- Control Building to Other
  - HTRP or Pulsar Equipment Racks
    - Stand-Alone – Provide EVLA Hooks
    - New Correlator Provides Improved Capabilities for Pulsar Work
  - Pie Town Link
    - Modernized to EVLA in Future
    - Part of Phase II