

Overall Data Processing Architecture

EVLA timeline and priorities

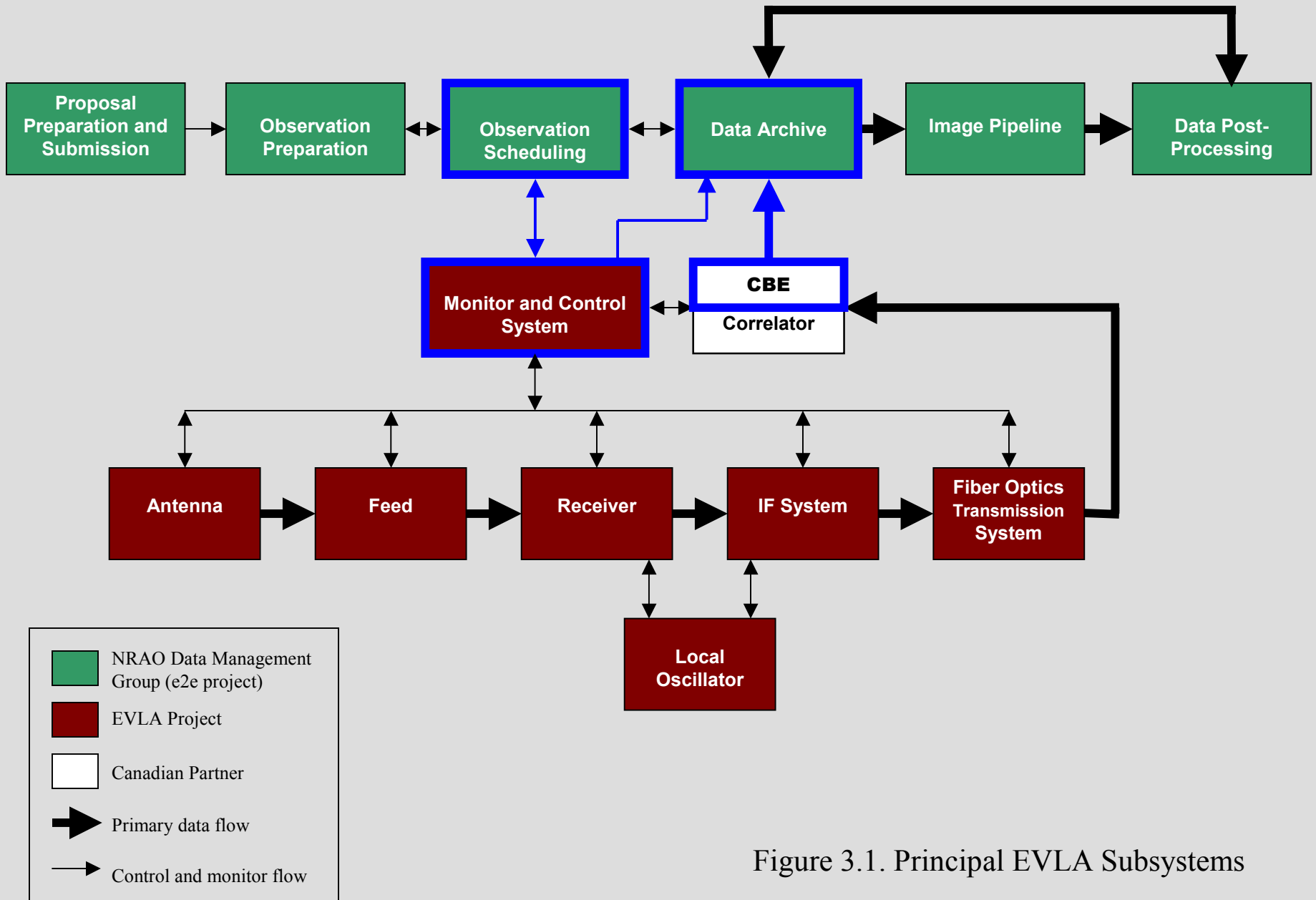
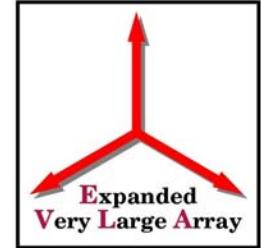


Figure 3.1. Principal EVLA Subsystems



EVLA Schedule

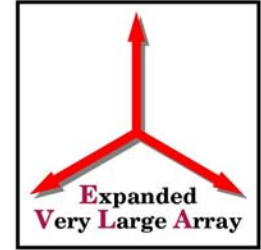
(Calendar years)



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- **Start installation of fiber optics cables on Y** **Q4 2002**
 - **Prototype EVLA system lab integration and test** **Q1 2003**
 - **Install prototype EVLA system on EVLA Test Antenna** **Q2 2003**
 - **Subsystem CDRs** **Q4 2003**
 - **Start EVLA electronics production** **Q4 2003**
 - **Start retrofitting 7 antennas/year with new system** **Q2 2004**
 - **Start observing in “transition” mode** **Q2 2004**
 - **Test of prototype correlator on 3 or 4 antennas** **Q4 2005**
 - **Start outfitting new correlator room** **Q2 2006**
 - **Start tests of first correlator subset at VLA** **Q4 2006**
 - **First “shared-risk” science with new correlator subset** **Q2 2007**
 - **Last antenna retrofitted to EVLA design** **Q1 2008**
 - **New correlator declared “operational”** **Q1 2009**
 - **Last EVLA receiver installed** **Q1 2010**
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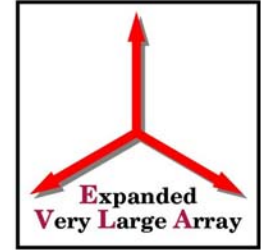
Interfaces e2e – EVLA M&C



- Correlator (Backend) → Archive
- M&C System → Archive
- Observation scheduling ↔ M & C System
- Pipeline and Post-processing



Correlator → Archive



Paced by correlator development

Q1 2009 New correlator operational – required

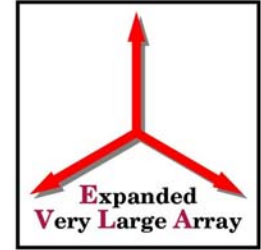
Q2 2007 First science with new correlator subset
– highly desirable

Q4 2006 Start test first correlator subset at VLA –
desirable

Q4 2005 Test correlator prototype - desirable



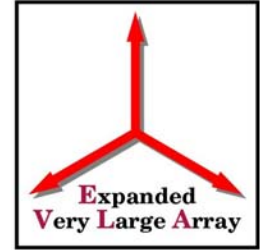
M&C System → Archive



- Archive (and retrieve) monitor data
- Paced by antenna upgrades
 - Q2 2004 Start observing in transition mode – required
 - Q2 2003 Prototype system on EVLA test antenna – highly desirable
 - Q1 2003 Prototype bench tests - desirable



Scheduling \leftrightarrow M&C System



When to transition from 'cards' to new Observation Scheduling System?

- Less of a 'drop-dead' date
- Becomes more important as new M&C system gains importance
- Q4 2006 Start test first correlator subset at VLA – highly desirable



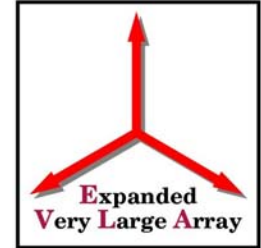
Pipeline and post-processing



- Required because:
 - Amount of data
 - EVLA specific requirements
- Q1 2009 new correlator operational – required
- Q2 2007 First science with new correlator subset – highly desirable
- Q4 2006 Test first correlator subset – desirable



Priorities



1. Archive
 - Monitor data – Q2 2003 / Q2 2004
 - Visibility data – Q2 2007 / Q1 2009
2. Observation scheduling – Q4 2006
3. Pipeline – Q2 2007
4. Observing preparation - TBD
5. Proposal preparation/submission - TBD