Software block diagram

Workstation (NT, Python, etc.)

- Disp. tools
- Script Execution Engine
- Network Interface
- Event Data Logger

Command Client

Embedded System (VxWorks)

- Command Server
- Network Interface
- Processing

- Event Data Server
- Hardware Interface

Network (LAN or 1553)
System Block diagram

LAT

Spacecraft Interface Simulator

Analogs & Discretes

SSR

1553

Ethernet Debug

Online

“IOC” CCSDS packets

“MOC” CCSDS packets

MOC simulator
Command Model

- **Command Request**
  - Raw Cmd Encoder
    - Raw Command Packet
      - Raw to CCSDS
        - Open CCSDS Command Packet
        - Obfuscator
          - NDA/ITAR Command Packet
      - “MOC” CCSDS packets
    - “MOC” CCSDS packets

- **Online/EGSE**
  - Command Dispatch
    - Raw Cmd Decoder
      - Raw Command Packet
      - CCSDS to Raw
        - Open CCSDS Command Packet
        - Deobfuscator
          - NDA/ITAR Command Packet

- **Test stand/Instrument**
  - Command Dispatch
    - Raw Cmd Decoder
      - Raw Command Packet
      - CCSDS to Raw
        - Open CCSDS Command Packet
        - Deobfuscator
          - NDA/ITAR Command Packet
Telemetry Model (1)

- This is the current situation
- Only one TEM or AEM allowed in the system at a time
- The raw data packet is currently *contribution* oriented
  - Needs to become *event* oriented
  - Event data iterators will change somewhat
  - Will do this soon
- This is likely to be the data format that will be used for the EM test
Telemetry Model (2)

- Multiple contributors (TEMs, AEM, GEM, filter statistics, etc.) allowed
- Event data will look different than in the EM-1 case
- Is this a useful scenario?
• Multiple contributors (TEMs, AEM, GEM, filter statistics, etc.) allowed
• Development for EM-2
• Will also be used for the CU beam test