NPOESS Architecture

Created from

Lessons Learned and Emerging Technologies

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NPOESS Mission

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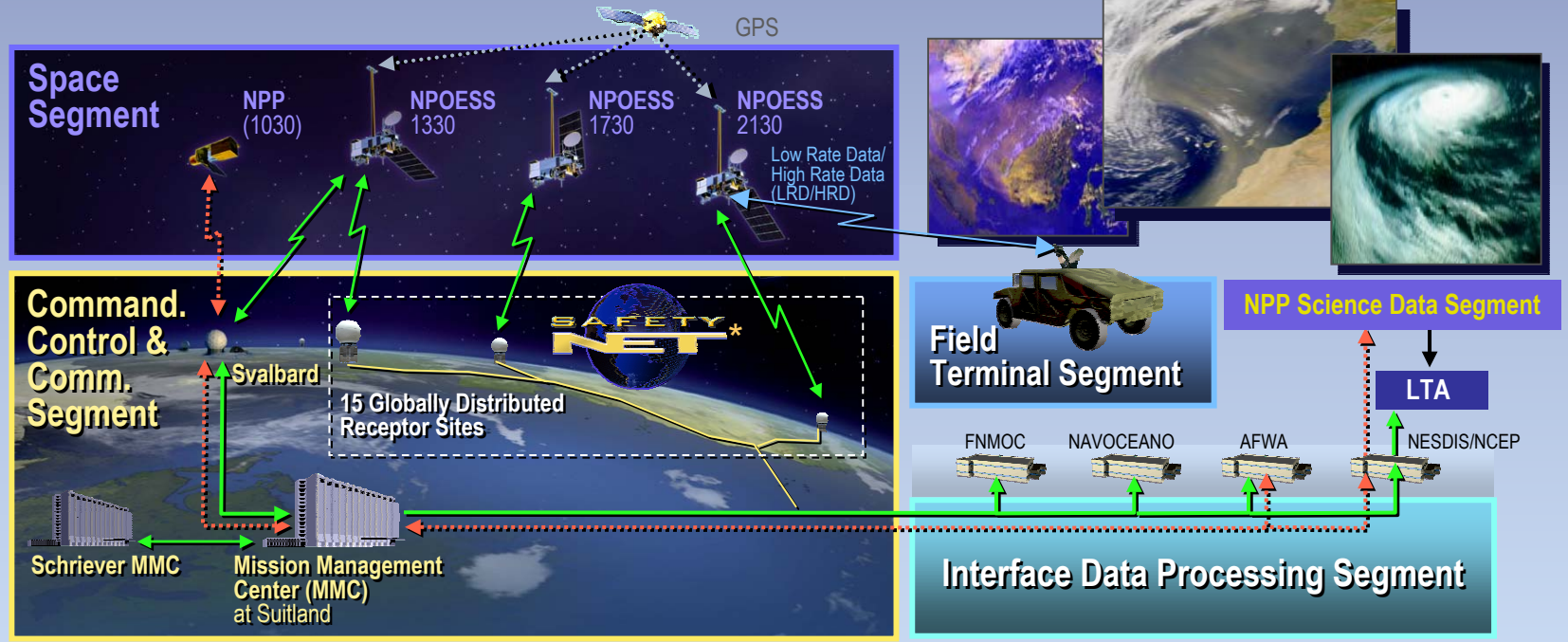
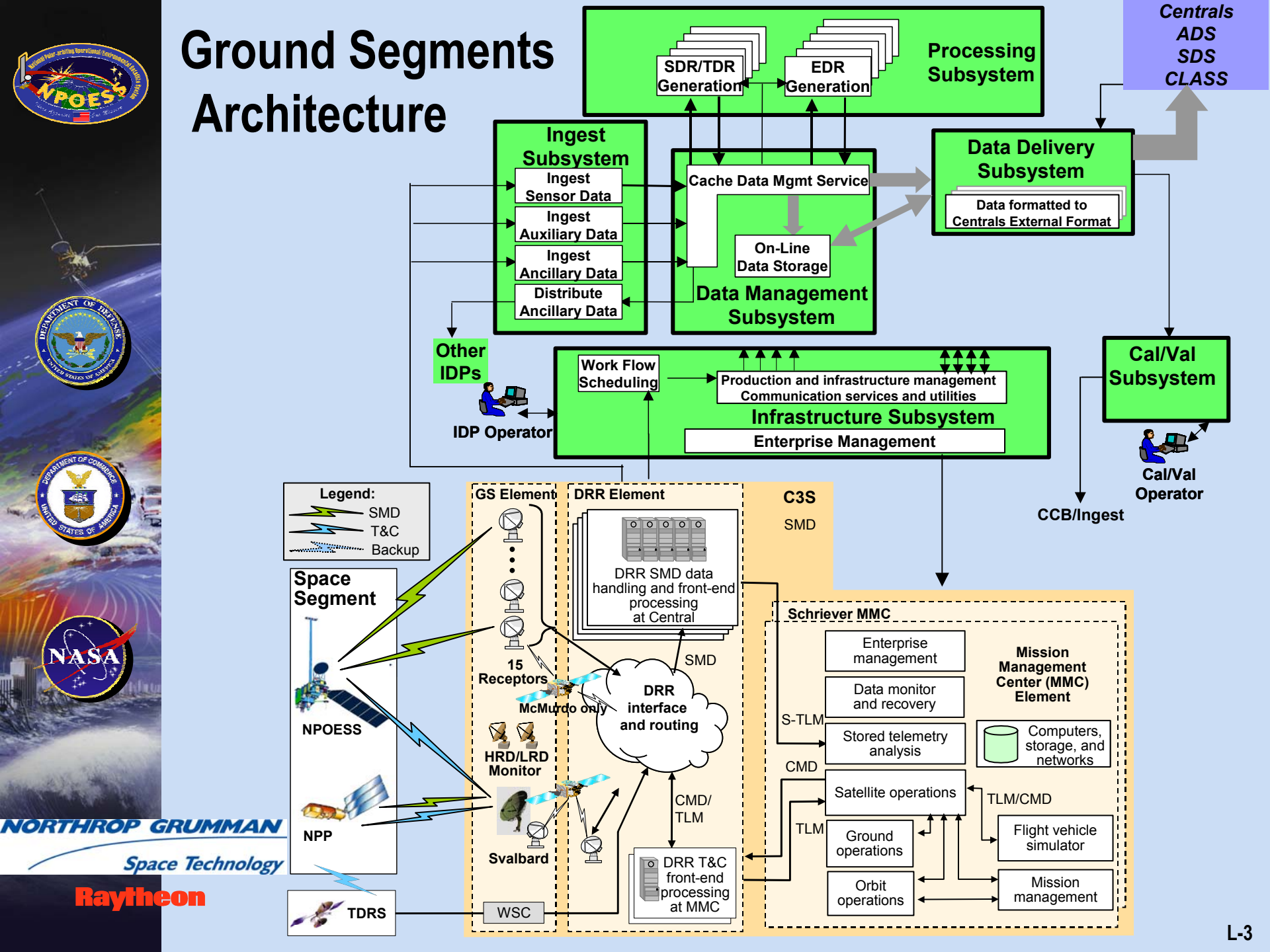
- Provide a national, operational, polar-orbiting remote sensing capability
- Achieve National Performance Review (NPR) savings by converging DoD and NOAA satellite programs
- Incorporate new technologies from NASA
- Encourage International Cooperation



A Tri-agency Effort to Leverage and Combine Environmental Satellite Activities

* Patent Pending

Ground Segments Architecture



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Technologies Utilized in NPOESS Ground Segments

Architectural Lessons Learned captured in our Product Lines (Eclipse, Equinox, ESC, CCT, Flight Ops)

- Data transfer and interface technology (including XML)
- Centralized processing with distributed products
- Windows usage for C3S
- Web technologies (Java, plug-ins, application servers)
- Tightly integrated C3S subsystems with a high level of automation capability allowing for reduced staffing and efficient operations
- 79% Reuse from Product Line and Operational Programs

Additional technologies

- SafetyNet Architecture to decrease latency
- Symmetric Multiprocessing architecture (IBM) for IDPS
- HDF5 as data format for IDPS Data Delivery Subsystem (worked to include HDF5 into data standards via JTA)

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