Introduction to Ground Data Service Support

First Contact Package
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Where Does POIC Fit?

Payload Developers and Principal Investigators
- Defines standard ground support service needs as defined in SSP 50305 POIC Capabilities Document
- Defines ground system operating locations
- Defines unique ground support needs

ISS Research Integration Office (OZ)
- Development of the Payload Integration Agreement (PIA) Letter’s Ground Data Service Section
- Negotiates funding for non-standard unique ground support requirements

Ground Support Requirements Team and POIC Customer Service Team
- Coordinate PIA assessments
- Coordinate detailed support services via GDS Blankbook
- Integrates GDS requirements for implementation, test, and certification
- One stop POC for PD/PI for GDS requirements (all mission phases)

POIC Ground Support Operations
- Monitors and configures GDS in support of all customer provided service.
- Troubleshoots and restores service as required.
- Help Desk Support.
- POIC Service Training
Ground Data Service Support

- Who is involved in the process?
  - The HOSC Ground Data Services (GDS) Customer Service Team (CST)
  - The Payload Integration Manager (PIM)
  - The PD/PI

- Documentation:
  - Payload Integration Agreement (PIA) Letter Ground Data Services Section
  - SSP 50305, POIC Capabilities Document

- What is required:
  - Identification of all operating locations
  - Identification of all operating location points-of-contact
  - Identification of general GDS needs
    - Telemetry/Command
    - Voice
    - Video
    - etc.
  - Unique GDS requirements
Ground Support Requirements Team (GSRT)

- Who is involved in the process?
  - The Payload Integration Manager (PIM)
  - The PD/PI

- Documentation:
  - Payload Integration Agreement (PIA) Letter Ground Data Services Section Letter

- What is required:
  - Identification of all operating locations
  - Identification of video, voice, telemetry, and command services
  - Identification of unique GDS needs

- Results:
  - Concurs with standard GDS requests in PIA Letter.
  - Provide cost and schedule impacts to OZ for reconciliation of unique requirements.
  - Documents support commitment in the ISS Program Requirements Document (PRD)
HOSC Customer Service Team (CST)

- The HOSC Customer Service Team is responsible for support the development of your ground data service (GDS) needs
  - Provides detailed explanation of the Payload Operations Integration Center’s (POIC) ground services.
    - Voice
    - Video
    - Command
    - Telemetry
    - Information Management Services (PIMS/OCRs).
    - Payload Planning services (User ISS resource requirements, Data flow plans, etc.)
  - Works with the customer to provide a “best fit” set of POIC ground support services that satisfy the customer’s ground operations concept.
  - Assist the customer with documenting their GDS needs in the appropriate Program Level and POIC requirement documents.
    - Payload Integration Agreement (PIA) Letter
    - Ground Data Service Blank Book
  - Provides cost impacts to optional services or other unique customer GDS needs.
  - Coordinates the creation and integration of all the customer GDS needs with customer’s host support facilities.
  - Ensures Payload Operations team training on POIC GDS.

- Provides a POIC single point-of-contact for GDS needs for the full life cycle of the experiment’s operations.
  - Pre-mission (flight readiness)
  - Mission (GDS need changes)
  - Post-mission (access to stored data service)
POIC Ground Operations Support Team

- Marshall Ops (MOPS)
  - System Controller (SYSCON)
  - Marshall Data (MDATA)
  - Help Desk
  - Integrated Support Team (IST)
    - Network Management
    - Systems Management
    - Data Base Administration
    - Account Management
    - Consolidated Maintenance
    - HOSC Facility
    - IT Security
    - Workload Control
    - Scheduling
Ground Operations Support Team

- Marshall Ops (MOPS)
  - Management of ground operation support to ensure all service are operating per identified service agreements.
  - Manages the GDS Call for Flight Readiness (CoFR) activities.
- Systems Controller (SYSCON)
  - Real time configuration and control of POIC GDS computer services to include troubleshooting and restoration of services as required for all mission, simulation, and test activities.
- Marshall Data (MDATA)
  - Real time configuration and control of POIC data, voice, and video distribution services to include troubleshooting and restoration of services as required for all mission, simulation, and test activities.
- Help Desk
  - Provides customer support for customer POIC to user systems interface problems.
GDS Integration Timeline

Signed PIA Letter
Ground Data Services

NOTE:
PIA Identified Optional Services support template varies based on complexity of need.

GDS Blank Book (Each Operating Location)
• Detailed POIC Services request
  • Command
  • Telemetry
  • Information management
  • Voice
  • Video
  • etc.
• Operating Location Network Information
• Operation Personnel Identification (ID)
• Ground System Support Personnel ID
• POIC Account Needs per Person

GDS Services Integration
• POIC Network I/F’s established
• User Accounts established
• POIC Services training
• POIC Services tested
• POIC Account Needs per Person
• Host Facility IT Security Checklist
• Payload Test & Checkout Supt
  • PRCU (JSC, MSFC, GRC, KSC)
  • SDIL (JSC)
  • EPIC II (KSC)

Sim Support
• Sim Ready
• More Payload Test & C/O Supt.

GDS CoFR
• GDS CoFR Checklist

Mission Ready

INC Ops Start

12 11 10 9 8 7 6 5 4 3 2 1 0
Increment Minus Months
GDS CoFR Package

- GDS CoFR Checklist Package distributed to all payload operating locations by the POIC Increment Operations Lead.
  - Package identifies services requiring CoFR
  - Package identified CoFR testing certification methodology
- POIC provides access to services 24 x 7 to support CoFR activity.
- Each operating location certifies GDS services by signing CoFR checklist.
PD Team Responsibilities

- Support to GDS HOSC Customer Service Team Rep to identify ground support service needs and GDS Blank Book completion for each ground operations location.

- GDS Support from payload’s host operating location(s):
  - Network management
  - Systems management
  - Security
  - Ground services testing

- Support GDS CoFR activity from each supported operating locations.

- Notify POIC of any ground support or payload operations personnel changes
Contact Information

- Ground Systems Requirements Team (GSRT)
  - Philip Cauthen 256-544-4204 philip.cauthen@nasa.gov

- POIC Customer Service Team
  - Nick Bornas 256-544-5235 nick.bornas@nasa.gov
  - Dennis Botts 256-544-9363 dennis.botts@nasa.gov
  - Chris Reid 256-544-6880 christopher.g.reid@nasa.gov
  - Karl Roth 256-544-3539 karl.roth@nasa.gov

- POIC Ground Operations Leads (Marshall Ops)
  - Hal Greenlee 256.544.6140 hal.greenlee@nasa.gov
  - Neal Mahone 256-544-2157 neal.mahone@nasa.gov
  - Gary Dempsey 256.544.5113 gary.l.dempsey@nasa.gov

- POIC Help Desk: 256-544-5066
Useful Website

- HOSC Administrative Portal
- https://mgssp.hadm.msfc.nasa.gov
  - Requires HOSC Account to access (standard service to all payload ops and support personnel as requested through the GDS Blank Book.
  - Access to POIC Services client applications
    - VPN
    - Remote IVoDS
    - EHS Web
    - TReK
    - EPC
  - Network Configuration requirements in support of POIC services
  - POIC service training materials
  - GDS Documentation
  - Integrated Schedules
  - HOSC Resource Schedules
  - HOSC Problem Reports.