

NASA

**IT Service Level Management Process
Document
Version 1.0**

April 17, 2009

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Document Abstract

This document provides all involved parties (including staff, management, partners, providers, and contractors), regardless of physical location with a guide and reference to **NASA's** IT service level management processes, procedures, and standards. **NASA's** service level management process refers to the set of tasks/activities/functions that seek to manage and support customer relationships and service levels associated with the IT environment.

Document Owner

The IT service level management process document is owned by the Architecture and Infrastructure Division within the NASA Office of the Chief Information Officer.

Revision History

Version	1.0
Revision Date	4/17/2009
Authors	
Service levels	
Approval:	
Next Revision:	

IT Service Level Management Purpose

NASA recognizes the need to establish reasonable guidelines for the effective use, management, and maintenance of underlying IT service level management. In doing so, **NASA** seeks to protect the integrity of its production environment and ensure adherence to NASA standard IT service management practices.

The purpose of this document is to provide all involved parties (including staff, management, partners, providers, and contractors), regardless of physical location with a guide and reference to **NASA's** IT service level management processes, procedures, and standards.

This document also serves to ensure that all parties involved in **NASA's** IT service level management processes, procedures, and standards, understand the regulatory requirements associated with **NASA's** IT service level management processes, procedures, and standards.

IT Service Level Management Scope

This document is intended to cover all IT service level management issues associated with **NASA's** IT environment including, but not limited to:

- Requests
- Projects
- HW
- SW
- Operating Systems
- Applications
- Telecommunications
- Networks
- Systems
- Patches, Upgrades, Modifications
- People/Organizational Structure
- Process
- Service Levels

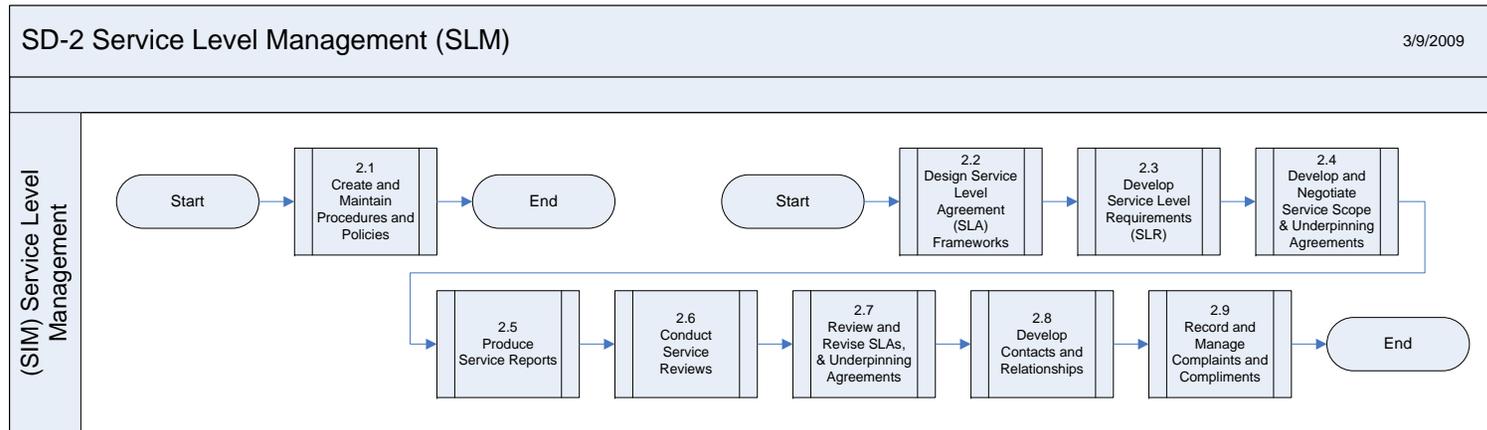
IT Service Level Management Description

The IT service level management process at **NASA** is a complex set of tasks, activities, and functions that seek to manage and support customer relationships and service levels associated with the IT environment. The IT service level management process is responsible for the management of IT service level requests, the agreement/negotiation/formalization and reporting of IT service levels, and the definition and management of IT products/services.

The IT service level management process at **NASA** is comprised of the following tasks:

- Identification of Performance Items
 - Development of a IT Product/Service Catalog
 - Identification of Relevant IT KPIs
 - Categorization of Customers
 - Identification of Customers' KPIs
 - Correlation of Customer' and IT' KPIs
 - Attain Agreement On IT Measurement Units
 - Alignment of Products/Services With Agreed KPIs
 - Development of Collection and Reporting Vehicles
 - Definition of Service Level Goals and Responsibilities
 - Establishment of Feedback Mechanisms/SLAs
 - Capture of IT Performance
 - Report IT Performance
 - Ongoing Communication and Refinement
-

IT Service Level Management Process Flow



Purpose, Goals and Objectives:

The **purpose** of the Service Level Management process is to ensure that all operational services and their performance are measured in a consistent, professional manner throughout the IT organization, and that the services and reports produced meet the needs of the business and customers. The **goal** of the Service Level Management process is to ensure that an agreed level of IT service is provided for all current IT services, and that future services are delivered to agreed achievable targets. The **objectives** of Service Level Management are to: define, document, agree, monitor, measure, report and review IT service levels; provide and improve the relationship with the business and customers; monitor and improve customer satisfaction; and, ensure proactive improvement of service levels across the IT landscape.

Triggers:

1. Changes in the Service Portfolio
 - New/Changed Business Requirements
 - New/Changed Services
2. New or changed agreements including:
 - Service Level Requirements (SLRs)
 - Service Level Agreements (SLAs)
 - Operating Level Agreements (OLAs)
 - Contracts
3. Service review meetings and actions
4. Service breaches or threatened breaches
5. Compliments and complaints
6. Periodic activities such as reviewing, reporting, and customer satisfaction surveys
7. Changes in strategy or policy

Inputs:

1. Business Information including Business & IT strategies & plans and financial plans
2. Information on current / future Service Portfolio requirements
3. Business Impact Analyses providing information on impact, priority, risk and numbers of users by service
4. New / changed Business requirements
5. Strategies, policies and constraints from Service Strategy
6. The Service Portfolio and Service Catalog
7. Change information from the Change Management Process
8. Configuration Management System
9. Customer and user feedback including compliments and complaints
10. Other inputs including advice or information from any all other processes

Outputs:

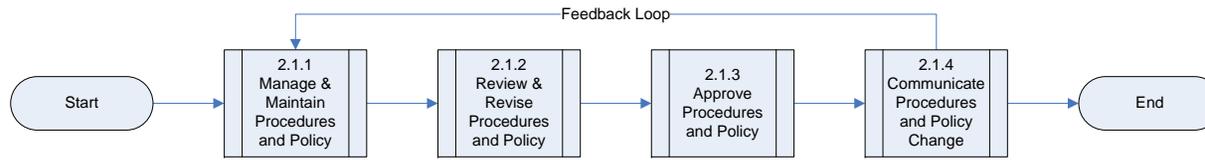
1. Service Reports
2. Service Improvement Plan
3. Service Quality Plan
4. Document Templates
5. Service Level Agreements
6. Service Level Requirements
7. Operational Level Agreements
8. Reports on OLAs and Underpinning Agreements
9. Service Review Meeting Minutes & Actions
10. SLA Review Meeting Minutes & Actions
11. Revised Contracts

SD-2.1 Create and Maintain Service Level Management (SLM) Procedures and Policies

3/9/2009

NASA Business
Customer
Community

(SIM) Service
Level Management



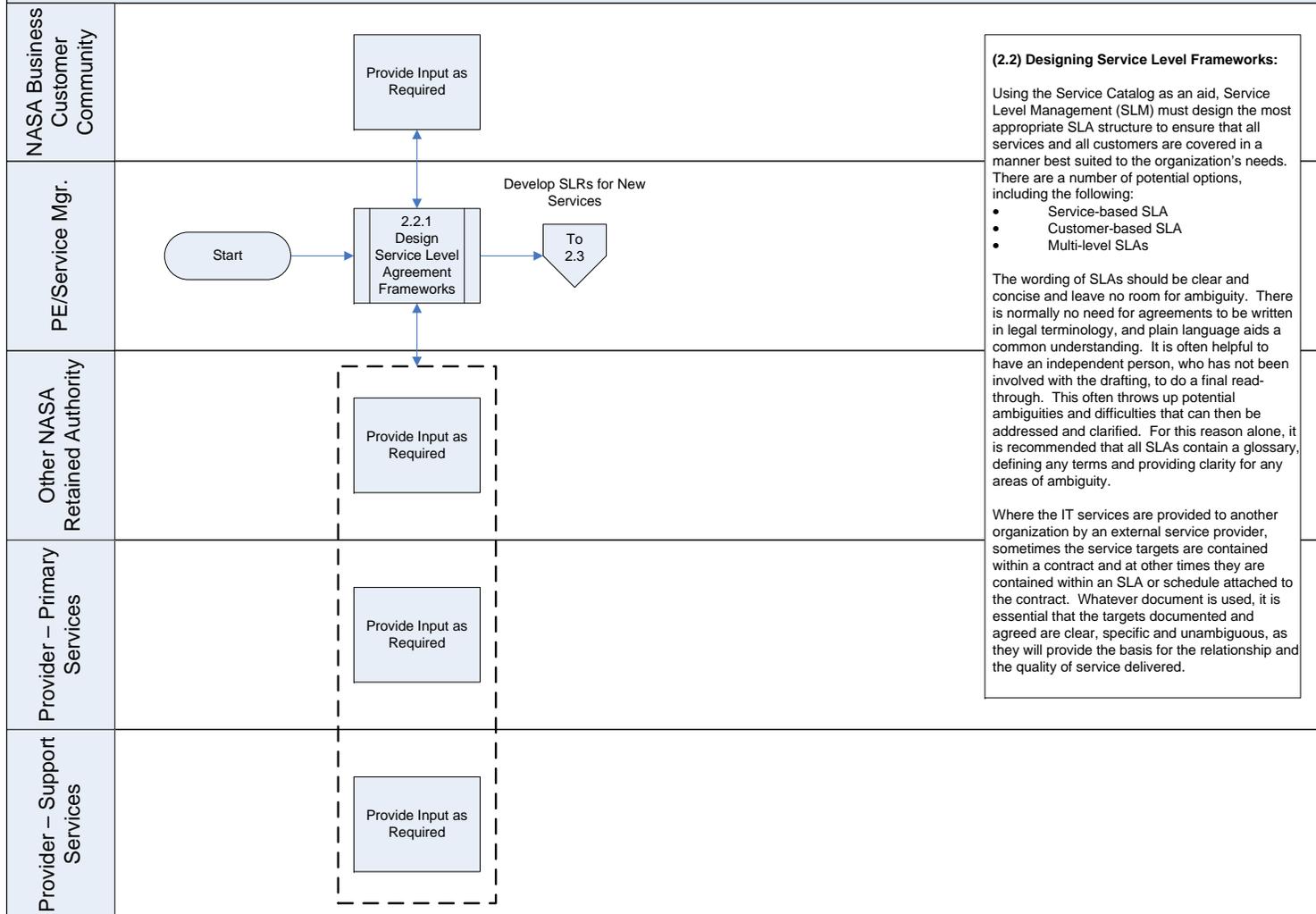
Other NASA
Retained Authority

Provider – Primary
Services

Provider – Support
Services

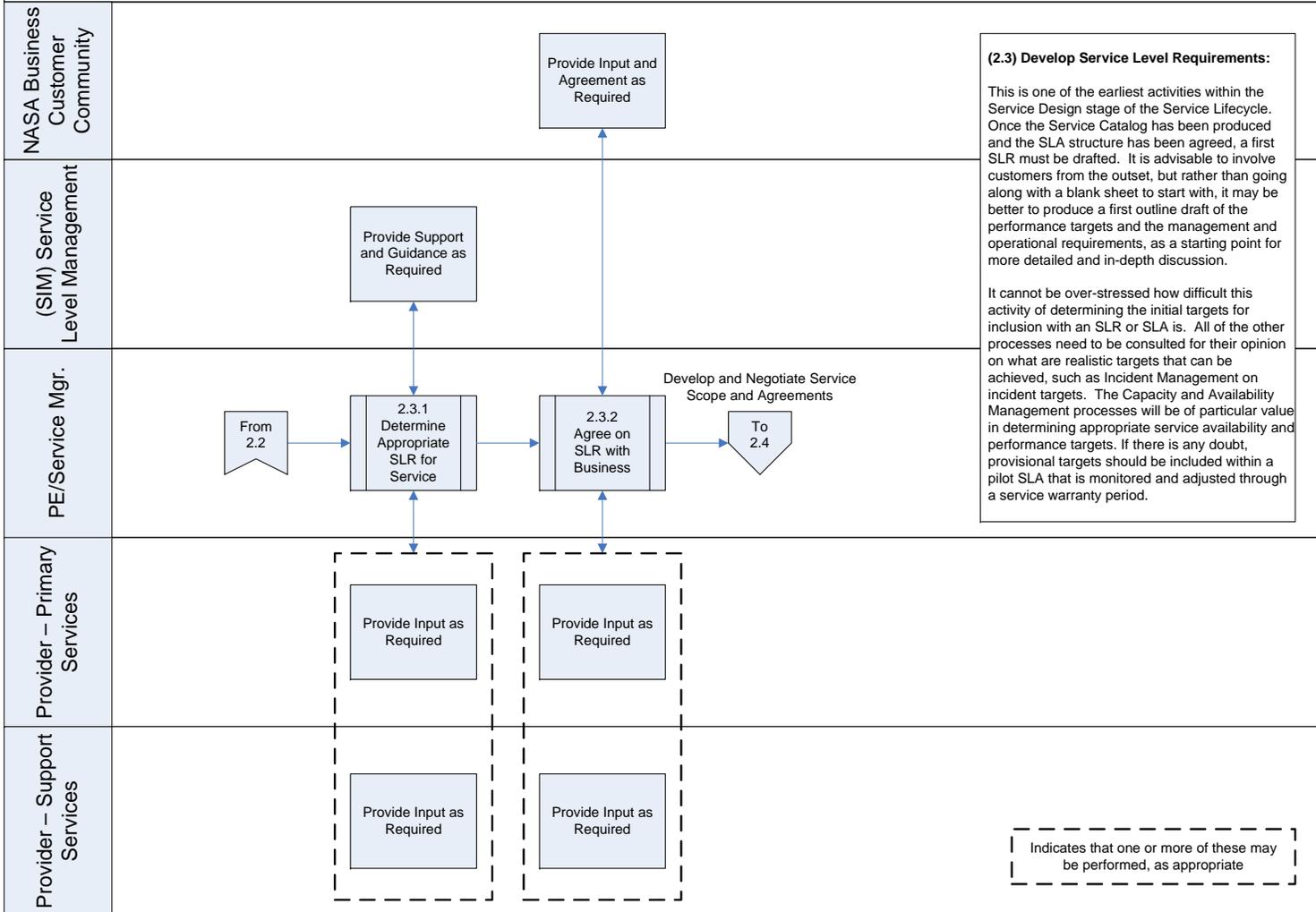
SD-2.2 Design Service Level Agreement (SLA) Frameworks

3/9/2009



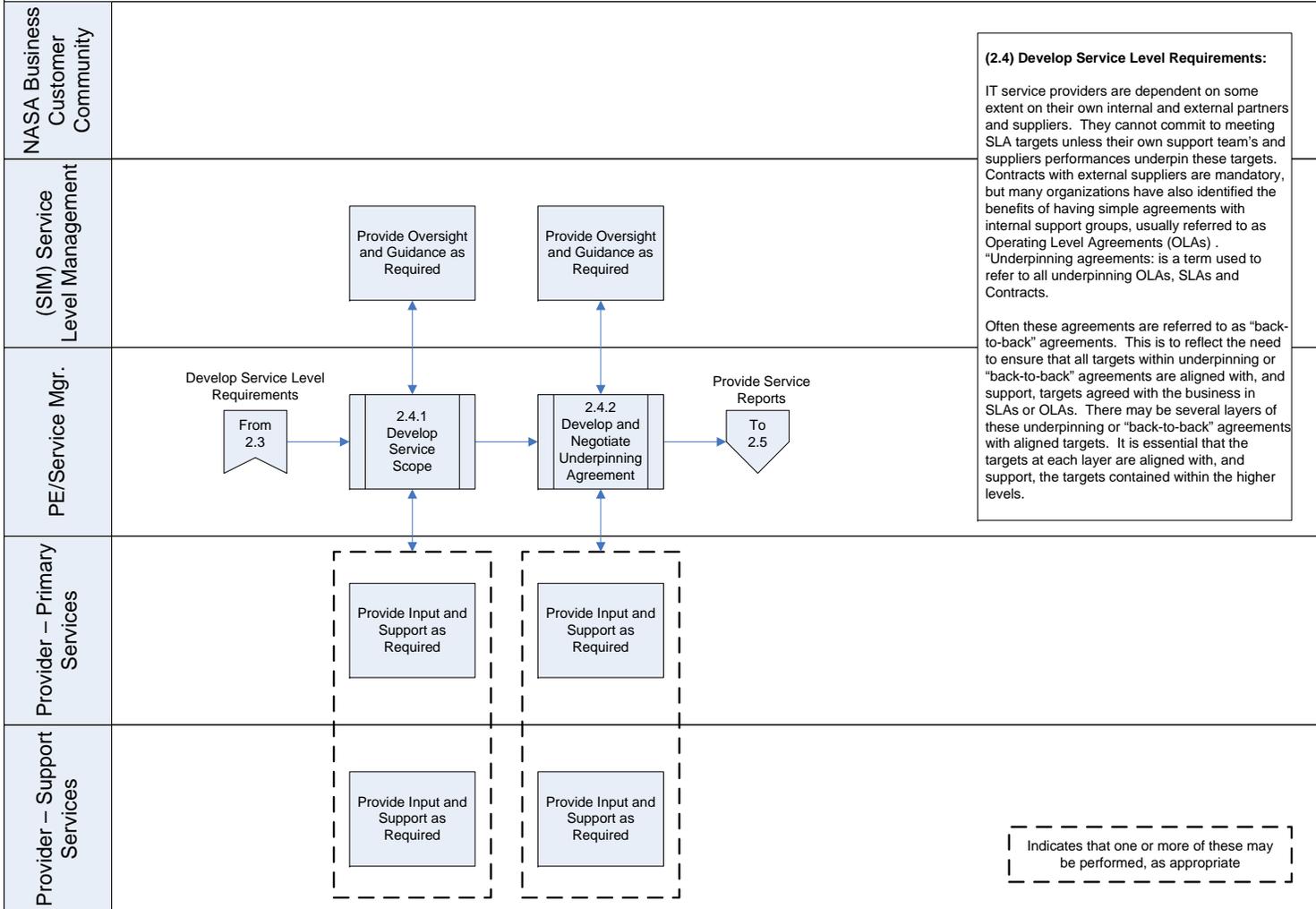
SD-2.3 Develop Service Level Requirements (SLR)

3/9/2009



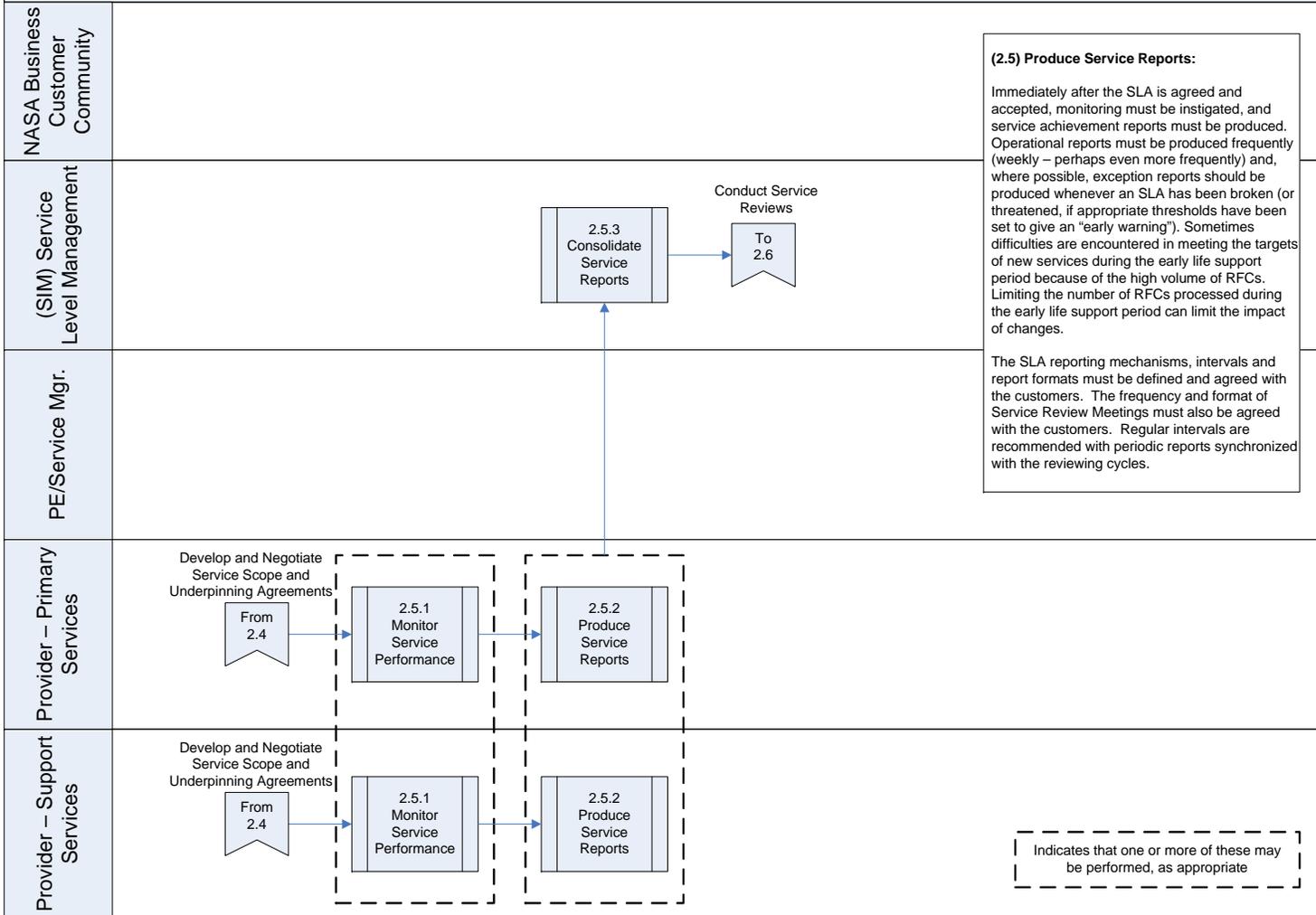
SD-2.4 Develop and Negotiate Service Scope and Underpinning Agreements

3/9/2009



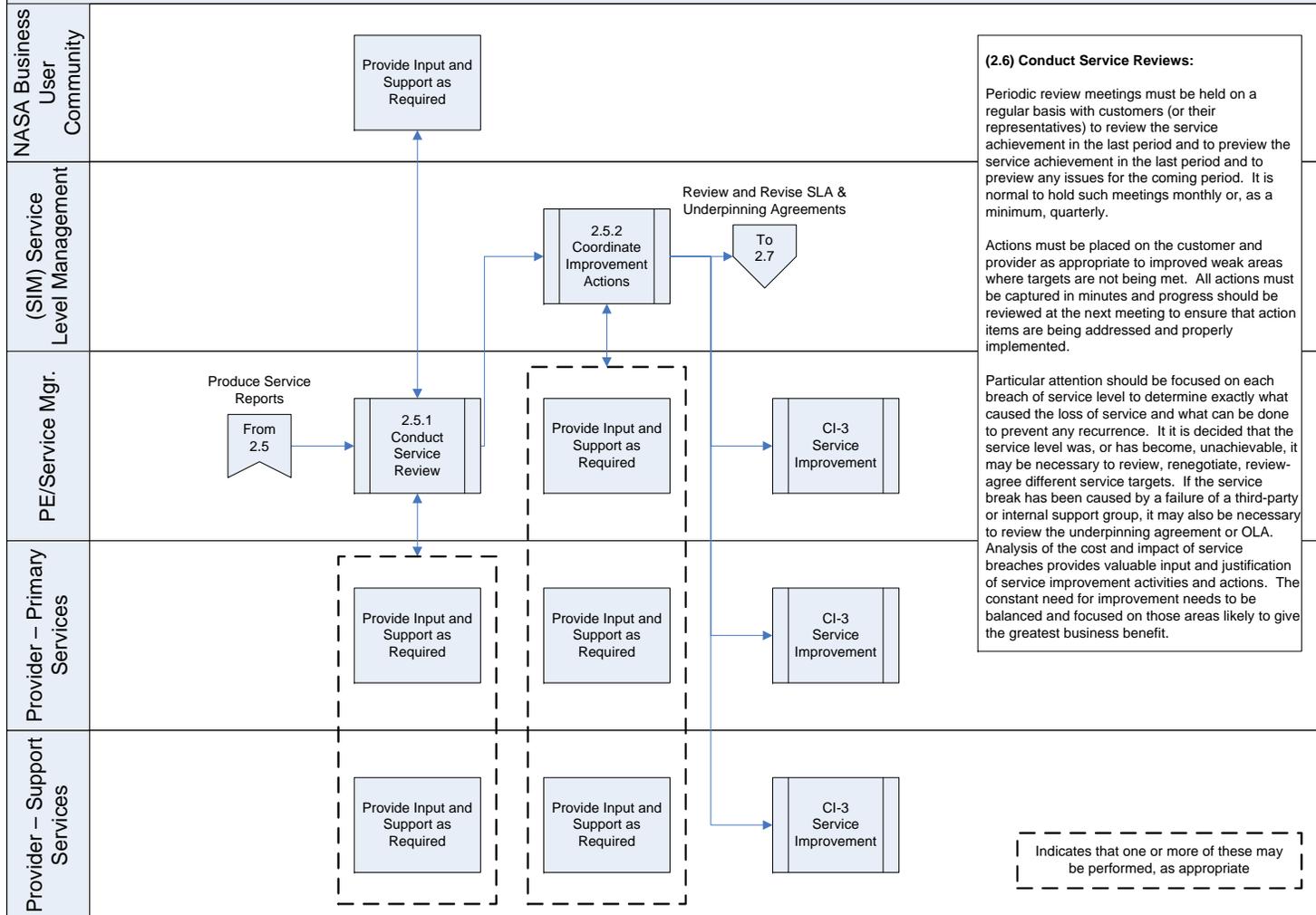
SD-2.5 Produce Service Reports

3/9/2009



SD-2.6 Conduct Service Reviews

3/9/2009



SD-2.7 Review and Revise SLAs, Service Scope and Underpinning Agreements

3/9/2009

NASA Business User Community

(SIM) Service Level Management

PE/Service Mgr.

Provider – Primary Services

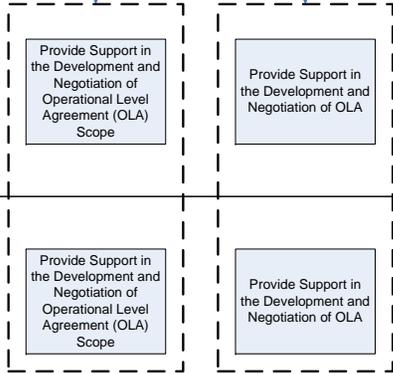
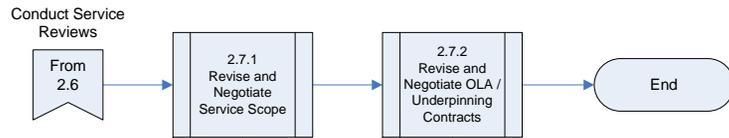
Provider – Support Services

(2.7) Review and Revise SLAs and Underpinning Agreements:

All agreements and underpinning agreements, including SLAs, unpinning contracts and OLAs, must be kept up-to-date. They should be brought under Change and Configuration Management control and reviewed periodically, at least annually, to ensure that they are still current and comprehensive and are still aligned to business needs and strategy.

These reviews should ensure that the services covered and the targets for each are relevant – and that nothing significant has changed that invalidates the agreement in any way (this should include infrastructure changes, business changes, supplier changes, etc.). Where changes are made, the agreements must be updated under Change Management control to reflect the new situation. If all agreements are recorded as CIs within the CMs, it is easier to assess the impact and implement the changes in a controlled manner.

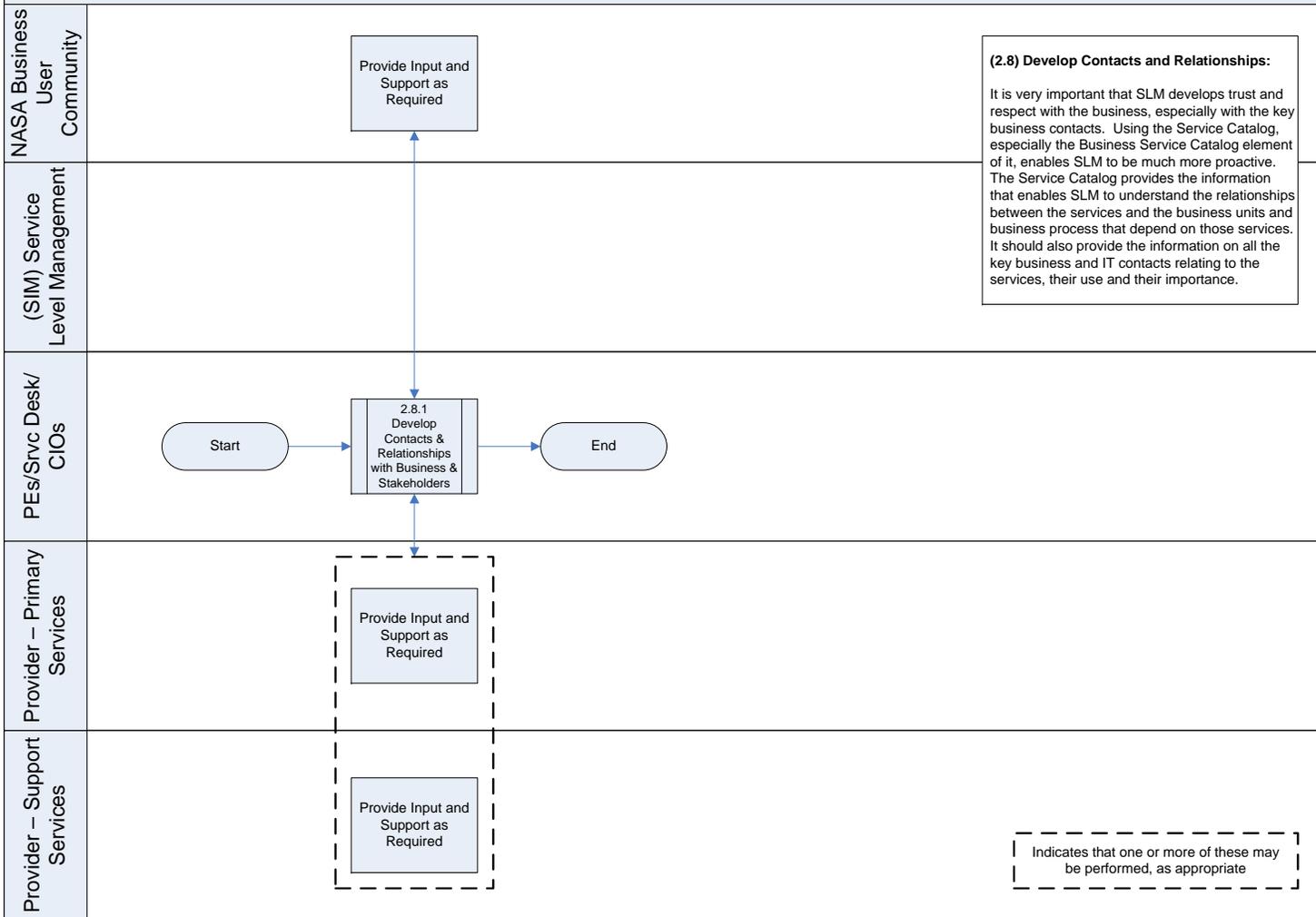
These reviews should also include the overall strategy documents, to ensure that all services and service agreements are kept in liime with business and IT strategies and policies.



Indicates that one or more of these may be performed, as appropriate

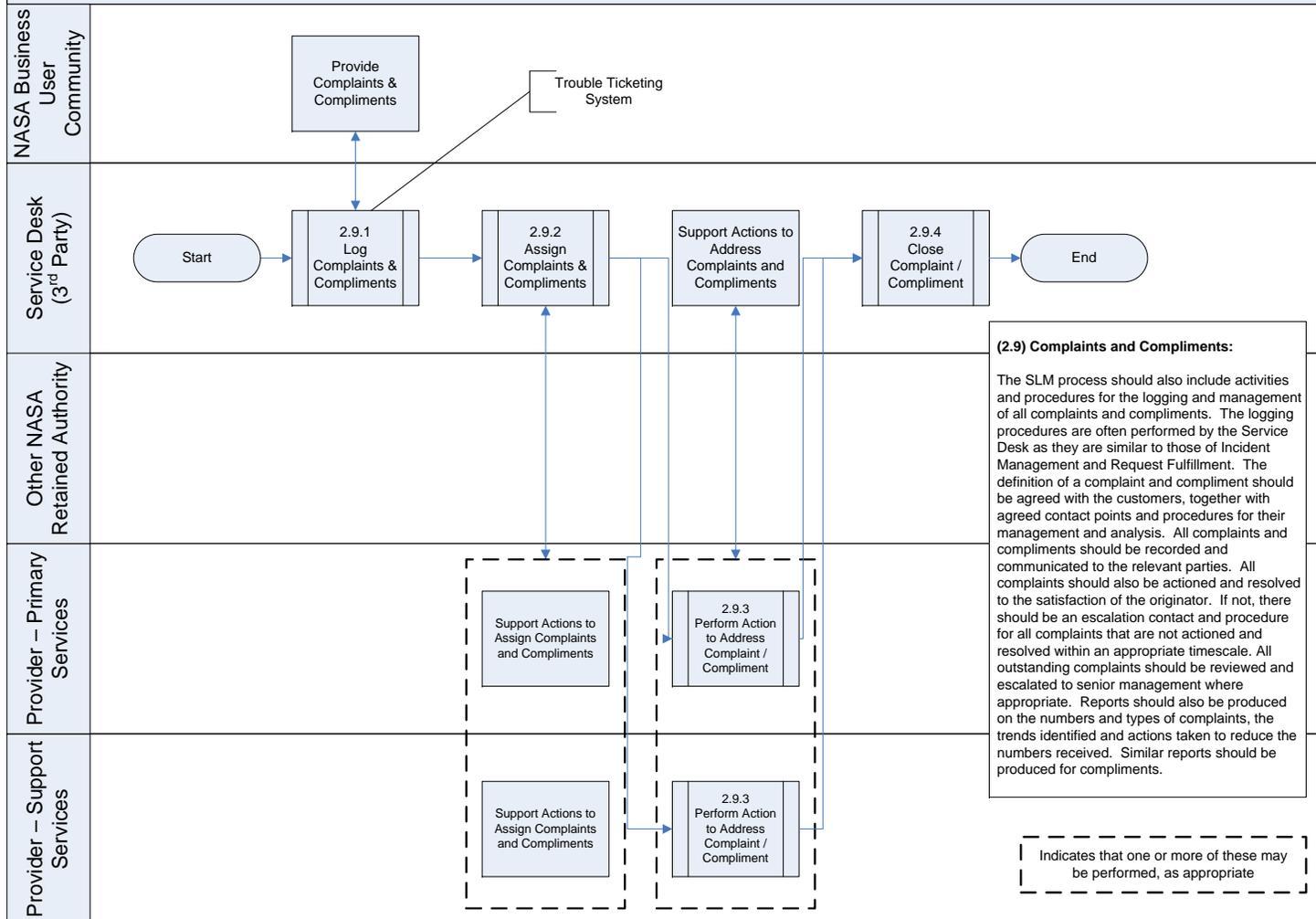
SD-2.8 Develop Contacts & Relationships with Business and Stakeholders

3/9/2009



SD-2.9 Record and Manage Complaints & Compliments

3/9/2009



IT Service Level Management Roles and Responsibilities

A number of roles and responsibilities have been identified as essential to the IT service level management process. The purpose of this section is to define those functional roles and responsibilities necessary for effective IT service level management, including but not limited to, **NASA's** staff, management, partners, providers, and contractors, regardless of physical location, involved in identifying and supporting IT service levels to **NASA's** IT environment.

Roles	Responsibilities
(SIM) Service level Management Process Owner	<ul style="list-style-type: none"> • Responsible for the documentation, modification, and update of all IT service level management process documentation • Responsible for assuring that the service level process meets organizational performance expectations • Ensures that individuals/groups adhere to the service level process • Accountable for the efficiency, effectiveness, and accountability of the process • Responsible for service level management performance reporting
Business Relationship Coordinator	<ul style="list-style-type: none"> • May interface to multiple customer constituencies • Creates/maintains service catalog offered by the organization • Formulates and maintains an appropriate service level structure • Develops and refines service level agreements (e.g. service based, customer based or multi-level) • Coordinates service level agreements, operational level agreements, and products/services • Support third party supplier/contract relationships • Accommodates existing service Improvement plans/programs • Produces regular reports on service performance • Reviews outstanding actions with current performance • Primary interface for pro-active relationship management • Establishes IT's performance measurement structure in relation to customer needs
Product/Service Manager	<ul style="list-style-type: none"> • Identifies and structures business relevant IT products/services • Assembles and manages IT products/service catalog • Reports on IT product/service performance and utilization
Service Level Coordinator	<ul style="list-style-type: none"> • Assists with service level management reporting and documentation • Assists with service level timeliness, follow-up, and integration with other processes (e.g., change management)

Identification and Categorization of IT Performance

Successful IT service level management requires IT to articulate service/product performance in relation to specific customer requirements. Effective service level management requires IT to:

- Identify relevant IT performance items
- Develop an IT product/service catalog
- Identify relevant IT key performance indicators
- Categorize customers into appropriate groupings
- Identify those performance indicators that are relevant to the customers
- Correlate customer' and IT' KPIs
- Agree on measurement units
- Align products/services with agreed KPIs
- Develop appropriate collection and reporting vehicles

Service Level Reporting and Communication

Service level reports will be negotiated between IT customers and IT representatives (e.g., service level managers). The following service level items must be negotiated:

- Service level agreement reviews will be performed periodically (e.g., annually) to assess value, relevance, etc.
- Service level reports will be delivered periodically (e.g. monthly) to [Name/Department] by [Name/Department].
- Penalties for missing agreed to service levels may be levied at a rate of [x%] of monthly service cost
- Service level managers will be responsible for coordinating all interactions between IT their business customers

IT Service Catalog Development

IT must be able to articulate its offerings and capabilities to effectively set and manage customer expectations. It is imperative, therefore, for each IT community to provide the following IT product/service catalog components:

- A listing of products/services delivered by each IT community
- A definition for each IT product/service delivered
- Key performance indicators for each IT product/service delivered
- Relevant cost components for each IT product/service delivered

IT Service Level Management Performance Measures

NASA will measure and maintain the performance of its IT service level management process with the following performance measures:

- Avg. customer satisfaction (1=low, 5=high)
- Frequency of customer satisfaction surveys (in Months)
- SLA reporting Frequency (Monthly, Quarterly, Semi-annual)
- # of relevant service levels managed/communicated
- Preferred method of reporting

- Paper reports
- In-person presentations
- Electronic methods
- Product/service catalog is in place (yes/no)
- # of service level agreements
- # of people dedicated to service level management
 - # of service level/account managers
 - # of report creators
 - # of product managers
- Service-level management budget
- % of services covered under a SLA
- Frequency of SLA reviews (in months)
- Time lag for clearing issues
- # of outstanding issues

IT Service Level Management Key Integration Points

Effective IT service level management requires significant integration between those technology and business communities that support, or request support of, **NASA's** IT environment. As such, the IT service level management process should include, but not be limited to, the following process integration points:

- Inputs
 - Service level Management
 - Business Partners
 - Identify business relevant performance measurement
 - IT Communities
 - Identify what measures can be captured
 - Incident Management, Monitoring and Configuration Management
 - Performance feeds
- Outputs
 - Configuration Management
 - Service level Management
 - Business Partners
 - IT Communities

Document Maintenance

The Service Integration Management office and associated parties will review the IT service level management process document annually for performance and refinement opportunities.

Additional reviews may be conducted as needed to amend policies to reflect changes in **NASA's** IT and business strategies, service offerings, and changing conditions in legal, regulatory, and market conditions. Suggestions or feedback

regarding the IT service level management process document may be submitted to the document owner, who will formalize and submit draft document revisions for review and approval by the document review board. Once approved, the document owner will update and distribute the document.