National Aeronautics and
Space Administration

NASA Shared Services Center
Stennis Space Center, MS
39529-6000
www.nssc.nasa.gov

NASA Shared Services Center Service Delivery Guide

NSSDG-2410-0001   Version 4.0

Effective Date: **March 16, 2022**
Expiration Date: **March 16, 2025 (3 yr. Review)**

ENTERPRISE SERVICE DESK (ESD)

SERVICE DELIVERY GUIDE

Responsible Office: NSSC Enterprise Service Desk

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 2 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

Approved by

Paul J. Rydeen
_____
Paul Rydeen
ESD Service Office Manager,
Enterprise Services Division

3/16/22
_____
Date

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 3 of 18

Responsible Office: Enterprise Service Desk

SUBJECT: **Enterprise Service Delivery Guide**

DOCUMENT HISTORY LOG

Status (Basic/Revision/ Cancelled)	Document Version	Effective Date	Description of Change
Basic	**1.0**	**10/18/2011**	**Basic Release**
Revision	2.0	10/18/2017	- Updated to reflect the current ESD Process
Revision	3.0	02/01/2018	- Updated the Metrics section with a table of additional
Revision	4.0	02/09/2022	- Updated PointSpan to Switch Agent for backup phones – Page 13 - Added Chat Bot feature to Core Capabilities – Section 3.4

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 4 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

TABLE OF CONTENTS

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 5 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

1.0 Background

1.1 The ESD serves as the Tier 1 Single Point of Contact (SPOC) for enterprise Information Technology (IT) services as well as non-IT and Center / Mission Directorate support Agency-wide. The ESD provides full service desk capabilities for the Agency, including ServiceNow access for Center and program support staff.

1.2 The purpose of these services is to standardize processes and interfaces, provide cost-effective services, and improve operational efficiencies to help achieve First Contact Resolution (FCR). ESD services help minimize customer downtime, mitigate risk, and provide better resources to customers through a comprehensive set of Information Technology Infrastructure Library (ITIL)-aligned processes and work instructions.

1.3 The ESD serves as a multi-channeled service desk. Customers and Contacts On Behalf Of (OBO) another customer can contact the ESD by:
- Calling the toll-free number at 1-877-NSSC123 (1-877-677-2123), option 2.
- Submitting a web inquiry through Tier 0/ESD Portal at https://esd.nasa.gov.
- E-mailing the ESD at NASA-ESD@mail.nasa.gov.
- Faxing supplemental information via toll-free fax to 888-525-6497.
   Note: ESD hours of operation: 24 x 7 x 365.

1.4 ServiceNow is used to support customer contacts to the ESD. Specific applications, such as Call Ticket Management, Incident Management, and Service Request Management, are provided within ServiceNow. In the event of a system or network outage preventing escalation of Incidents to Tier 2 Service Providers within the system, the ESD follows a manual escalation process.

2.0 Purpose

The purpose of this Service Delivery Guide is to document the services offered by the NASA Shared Services Center (NSSC) Enterprise Service Desk (ESD) that provide Tier 0 / Tier 1 support to NASA users.

3.0 Applicability/Scope

3.1 Customers access knowledge articles and Frequently Asked Questions generated from the ESD knowledge management tools through the ESD Tier 0 website at https://esd.nasa.gov. Customers submit tickets on the website when support is needed from an ESD agent, and they also call or email the ESD for support.

3.2 The ESD representatives possess knowledge of NASA services and utilize the ServiceNow knowledge base to accurately respond to and resolve routine customer inquiries on the first contact. The ESD maintains the confidentiality of

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 6 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

proprietary, personal, and sensitive information in accordance with NASA policy and relevant and current laws and regulations.

3.3 The ESD works closely with Tier 2 SPs and Centers to ensure
- A SPOC for initial reporting of incidents related to enterprise IT and other services
- A SPOC for ordering enterprise IT and other services
- Collecting Service Level Indicator (SLI)-based performance metrics for enterprise IT and other services using ESD support systems and databases
- Notifications to users for planned/unplanned outages and changes affecting Enterprise IT Services
- The issuing and reporting of enterprise IT and other services surveys

3.4 Core capabilities include:
- A 24 x 7 x 365 service desk dedicated to providing IT and non-IT support.
- A self-service web site offering services such as
    - Access to over 3,000 Self-Help Knowledge Articles (KAs) and Frequently Asked Questions (FAQs)
    - The ability to report issues to the service desk and/or check the status of an existing ticket
    - The ability to provide feedback to ESD based on customer experience
    - The ability to suggest future enhancements
- A service catalog that allows customers the ability to request products and services offered by the Service Providers (SPs) and Centers
- A Knowledge database maintained by the ESD with input from the Tier 2 SPs and Centers
- A notifications tool which gives customers the ability to:
    - Submit notifications to the ESD for publication
    - Sign up for services which notify subscribed customers of planned outages/maintenance
- Coming in April 2022, ESD will introduce Chat Bot which will provide customers with assistance around the clock to resolve issues fast, and get what they need, when they need it, with an AI Powered conversational Chat Bot. The Chat Bot icon will be available on every page in the lower right corner of the ESD Portal Website. Features available are:
    - NDC Password Support
    - Launchpad Password Support
    - Eliminate/Recover Password
    - Search Self Help
    - Create a ticket
    - Order Services
    - Status Update
    - My Assets
    - Provide Chat Bot Feedback

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 7 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

4.0   Privacy Information

All participants involved must ensure protection of all data covered by the Privacy Act.

5.0   Records

5.1   The ESDs modules used in ServiceNow in support of offered services contain official records. Modules containing official records are managed in the NSSC Master Records Index (MRI) for each record type based upon the required retention requirements of these records.

5.2   ESD's manual "paper" tickets are stored for one year from the date of the event occurrence. Upon the one (1) year mark the ESD Records Liaison Officer (RLO) prepares the Records Retention packet requesting the records be destroyed.

6.0   Cancellation/Supersession of Previous Documents

This revision supersedes Basic Version 1.0.

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 8 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

PROCESS 1- INCIDENT MANAGEMENT

Process – Incident Management		
Roles and Responsibilities	**Action**	**Tips/Notes**
Step 1 **ESD Customer or Contact OBO** Submit Inquiry	The customer/contact contacts the ESD to request or report an issue. **Output:** Tier 0, Phone call, E-mail, Fax (supplemental information)	Centers and SPs direct customers to contact the ESD.
Step 2 **ESD Agent** Creates a Call and transfer to an Incident Management Ticket	ESD identifies the correct customer, contact (if necessary), and callback number ServiceNow. **Output:** Call / Incident is recorded in the Call and Incident Management module	ServiceNow is used to select the correct customer and contact (if necessary). Reference the ESD Incident routing diagram in the guide
Step 3 **ESD Agent** Troubleshooting with results – Resolve or Elevate Incident Ticket	The ESD takes the appropriate troubleshooting action based on information gathering provided by the customer in order to resolve or transfer to Incident and elevate to Tier 2. If the issue cannot be resolved by the ESD Agent, the agent assigns the ticket to appropriate Tier 2 based on the knowledge articles used. **Note:** The ESD Agent will execute a warm handoff to the proper SP Contractor, when necessary. Please see the Warm Handoffs section for more guidance.	Responses to calls are completed and issues raised are addressed with a positive tone reflecting the NSSC's commitment to "unparalleled service".

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 9 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

Process – Incident Management		
Roles and Responsibilities	**Action**	**Tips/Notes**
	Output: Call is resolved or elevated to appropriate Tier 2 SP as an Incident.	
<u>**Step 4**</u> **Customer** Resolution Notification including Survey link	Based on the close code selected by the ESD and/or Tier 2, the customer receives an automated e-mail advising their ticket has been resolved. The customer is given the opportunity to provide feedback on their experience leading up to resolution of their issue. The customer also has the ability to access the Survey using ServiceNow **Output**: Electronic E-mail and ServiceNow	The customer may also use the Feedback feature found on Tier 0 to provide feedback.

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 10 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

PROCESS 2- ORDERING SERVICES

Process – Ordering Services		
Roles and Responsibilities	**Action**	**Tips/Notes**
<u>**Step 1**</u> **ESD Customer or Contact OBO**	The customer submits an order for services/products within the Service Catalog from the ESD Website. **Output:** Tier 0	Contacts have the ability to submit orders OBO another customer.
<u>**Step 2**</u> **Approval Process**	Depending on the product or services requested, the order may require up to 3 approvals (Organizational, IT, Resource approvals). **Output:** Enterprise Service Request System (ESRS)	ServiceNow automatically routes the order through the approval process.
<u>**Step 3**</u> **Vendor Fulfillment**	Once all necessary approvals have been captured, the order is transferred to the Vendor for fulfillment. **Output:** Varies by Vendor	Orders are filled based on availability.
<u>**Step 4**</u> Automated Survey	After the Vendor marks the order complete, the customer will receive an automated e-mail requesting the customer to complete the survey based on their experience. **Output:** E-mail	The customer may also access the survey within ServiceNow.

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 11 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

METRICS

The following matrix contains the ESD Service Level Indicators (SLI's). For details of metric collection, you may reference the business rules in the NSSC NexGen contract.

Performance Area	Service Level Indicator (SLI) or Performance Standard	SLI (Y/N)	Method of Surveillance
ESD Call Answer Rate	80% of customer calls are answered within 60 seconds	Y	Review of automated workload system, ServiceNow, data warehouse and desk audits
ESD Customer Satisfaction (Tier 1)	90% Customer Satisfaction Rating	Y	Review of automated workload system, ServiceNow, data warehouse and desk audits
ESD Call Abandonment Rate	The call abandonment rate shall be less than 7%	Y	Review of automated workload system, ServiceNow, data warehouse and desk audits
First Contact Resolution - ESD	95% of routine customer ESD inquiries received by ESD are resolved on the initial contact (call, Tier 0, email). Routine is defined as a knowledge article exists to resolve the inquiry.	Y	Review of automated workload system, ServiceNow, data warehouse and desk audits
First Contact Resolution - ALL	70% of routine customer inquiries are resolved on the initial contact (call, Tier 0, email). Routine is defined as a knowledge article exists to resolve the inquiry.	N	Review of automated workload system, ServiceNow, data warehouse and desk audits
Time to escalate/resolve incidents submitted via Tier 0	90% of incidents submitted via Tier 0 are escalated or resolved by ESD within 2 hours of receipt.	Y	Review of automated workload system, ServiceNow, data warehouse and desk audits
Time to escalate/resolve incidents submitted via email.	90% of incidents submitted via email are escalated or resolved by ESD within 2 hours of receipt.	Y	Review of automated workload system, ServiceNow, data warehouse and desk audits

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 12 of 18

Responsible Office: Enterprise Service Desk
SUBJECT: **Enterprise Service Delivery Guide**

SYSTEM COMPONENTS

Existing Systems

IT System Title	IT System Description	Access Requirements	IT System Interfaces
Incident Management	*Documents and tracks customer inquiries to the ESD* *Incident Management is used to report key customer service metrics such as first call resolution, right-first time allocation, and time to escalate*	*Read/write access for Tier 1 and Tier 2 (SP Contractors)*	*ServiceNow is a cloud-based platform.*
Problem Management	*Manages related Calls and Incidents with a common root cause*	*Read/write access for Tier 1 and Tier 2 (SP Contractors)*	*ServiceNow is a cloud-based platform.*
Knowledge Management	*Allows SP's to create, maintain and share up-to-date knowledge articles for Tier 0 and Tier 1 ESD agents*	*Read/write access for Tier 1 and Tier 2 (SP Contractors)*	*ServiceNow is a cloud-based platform.*
Cisco Internet Protocol for Contact Center (IPCC) including Voice over Internet Protocol Phone (VoIP)	*Automatic Call Distribution (ACD) for call agents*	*ESD personnel only*	*VoIP Call Manager*
Centergy Manager	*Backup ACD for call agents*	*ESD personnel only*	*Switch Agent*
ESD Notification Tool	*ServiceNow*	*NASA Account Management System (NAMS)/Identity and Access Management Tools*	*ServiceNow is a cloud-based platform.*

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2022
	Page 13 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

APPENDIX A - ACRONYM LIST

ACD   Automatic Call Distribution

ARM   Action Request Module

ASA   Average Speed to Answer

CI   Configuration Item

CMS   Change Management System

CRM   Customer Relationship Management

ESD   Enterprise Service Desk

ESRS   Enterprise Service Request System

IMS   Incident Management System

IPCC   Internet Protocol for Contact Center

IT   Information Technology

ITIL   Information Technology Infrastructure Library

KMS   Knowledge Management System

KPI   Key Performance Indicator

MTTR   Mean Time to Repair

NAMS   NASA Account Management System

NASA   National Aeronautics and Space Administration

NSSC   NASA Shared Services Center

OBO   On Behalf Of

OLA   Operating Level Agreement

PII   Personally Identifiable Information

SIC   Strategic Integration and Communications Division

SLA   Service Level Management

SME   Subject Matter Expert

SMT   Service Monitoring Team

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 14 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

SP   Service Provider

SPOC   Single Point of Contact

TBD   To be Determined

UC   Underpinning Contract

VIP   Very Important Person

VoIP   Voice over Internet Protocol

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1 2025
	Page 15 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

APPENDIX B – INCIDENT MANAGEMENT WORKFLOW

For each customer inquiry received, the ESD processes a Call ticket (received via Tier 0, E-mail, or Phone contact) for the customer or the contact, if reporting an issue on behalf of (OBO) another customer. Both the contact and the customer will have visibility of the Call / Incident via Tier 0. Customers will be offered the opportunity to complete a brief phone survey at the end of a call. Inquiries resolved per the Incident Management process (Incidents) will generate a Customer Satisfaction Survey based on the Close Code selected.

Within the ESD, events are broken into three primary categories:

a. Incidents – Events affecting the regular operation of processes and procedures. The Incident Management process includes processing of Call tickets as the first point of reference (not escalated beyond the ESD) and the progression to Incident and escalation to Tier 2 if not able to be resolved at Tier 1.
Example: A user being locked out of the computer would result in a Call resolved at Tier 1, while an undocumented error message appearing during normal system operation would require escalation of a Call to an Incident which would be assigned to Tier 2.

   The ESD Incident Severity levels are as follows:
   - Severity Level 1 - A complete loss of critical business IT functions / systems / services / applications / infrastructure with no workaround.

   - Severity Level 2 - A partial degradation or loss of critical business IT functions / systems / services / applications / infrastructure impacting a [large or significant] number of people/organizations with no workaround.

   - *Severity Level 3 - A loss or degradation of non-critical business IT functions / systems / services / applications / infrastructure impacting a small number of users with a workaround.*

   - Severity Level 4 - A loss or degradation of non-critical business IT functions / systems / services / applications / infrastructure impacting a single user with a workaround.

b. Problems – Events underlying the cause of several Incidents, or the result of an Incident for which the ESD has no knowledge in its knowledge base. The ESD uses a Master Incident Ticket process for problems associated with Agency

NSSC	NSSDG-2410-0001 Version 4.0
Service Delivery Guide	Number
	Effective Date: March 1 2022
	Expiration Date: March 1, 2025
	Page 16 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

services. The Problem Management application is used in ServiceNow for internal NSSC problems.
Example: A core configuration issue causing conflicts with resources.

c. Known Errors – Problems without a permanent solution in place. A workaround will be documented in the knowledge base.
Example: Issues waiting on Change Management processes to take place.

Most information used in Incident Management comes from the following sources:

- Call and Incident Records containing:
    - Unique reference number

- Call and Incident Classification containing:
    - Date and time of recording
    - Identity of the Customer and Contact
    - Name / organization / contact details of affected customers(s)
    - Description of the symptom(s) being reported
    - Details of any actions taken and results of those actions
    - Categorization
    - Impact
    - Urgency and priority
    - Relationship with other Incidents
    - Relationship with Knowledge Articles
    - Equipment Asset Information
    - Problems
    - Changes or Known Errors
    - Closure details

- Incident Management tools containing information about:
    - Call, Incident and Problem History
    - Categories
    - Action taken to resolve Incidents
    - Diagnostic Scripts

The ESD representatives possess knowledge of NASA services and utilize the ServiceNow knowledge base to accurately respond to and resolve routine customer inquiries on the first contact. The ESD maintains the confidentiality of proprietary,

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 17 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

personal, and sensitive information in accordance with NASA policy and relevant and current laws and regulations.
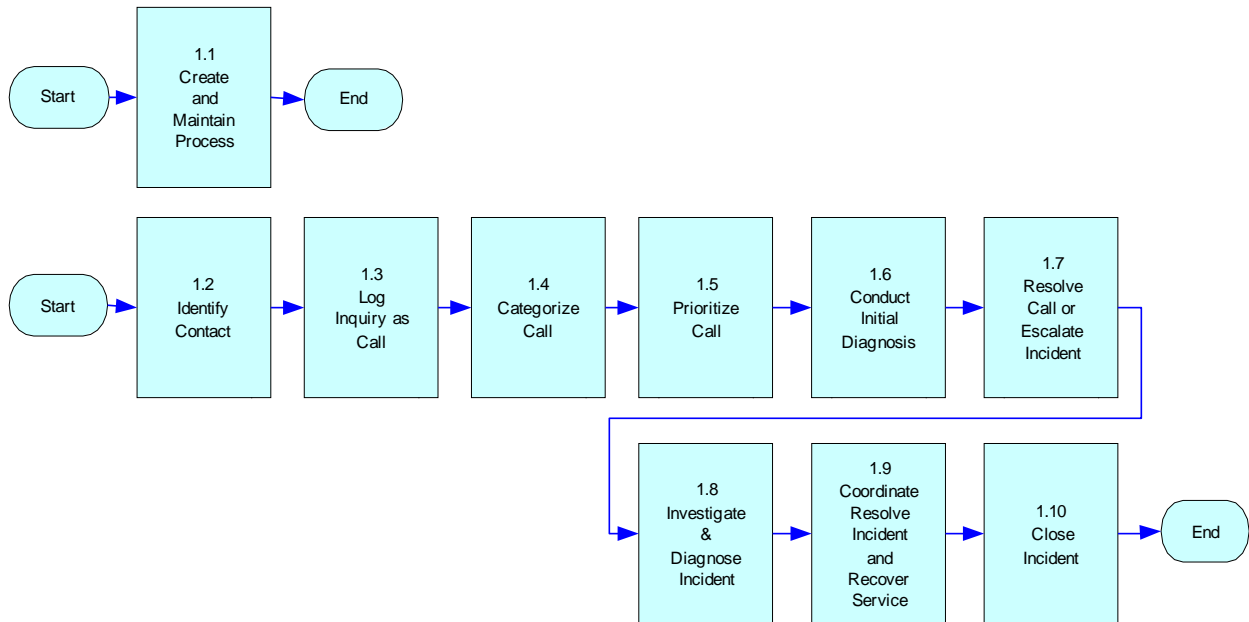

Figure 1: ITIL v3 Incident Management Process Flow

NSSC Service Delivery Guide	NSSDG-2410-0001 Version 4.0
	Number
	Effective Date: March 1, 2022
	Expiration Date: March 1, 2025
	Page 18 of 18
Responsible Office: Enterprise Service Desk	
SUBJECT: **Enterprise Service Delivery Guide**	

APPENDIX C- ROLES AND RESPONSIBILITIES

1. ESD Agents are responsible for:
   - Acting as the first live contact for ESD customers
   - Opening a Call in the ServiceNow database for every inquiry made to the ESD.
   - Resolving routine and predictable inquiries regarding ESD supported services agreed upon by the SP
   - Staying current with ESD training

2. ESD Guardians are responsible for:
   - Providing technical assistance to ESD agents as they work customers' issues.

3. ESD Training Coordinator is responsible for:
   - Training the ESD staff on new products, services, and policy/procedures
   - Up-training the ESD staff on changes to existing products, services, and policy/procedures

4. ESD Supervisors are responsible for:
   - Reviewing and publishing Center and SP-authored knowledge articles
   - Workforce Management
   - Performing quality review of Call Tickets and Incidents
   - Writing and reviewing Work Instructions, Training Plans, and Customer Guides
   - Monitoring real-time call volume and adjusting staff assignments to accommodate call volume spikes
   - Monitoring metrics performance
   - Identifying opportunities for process improvement