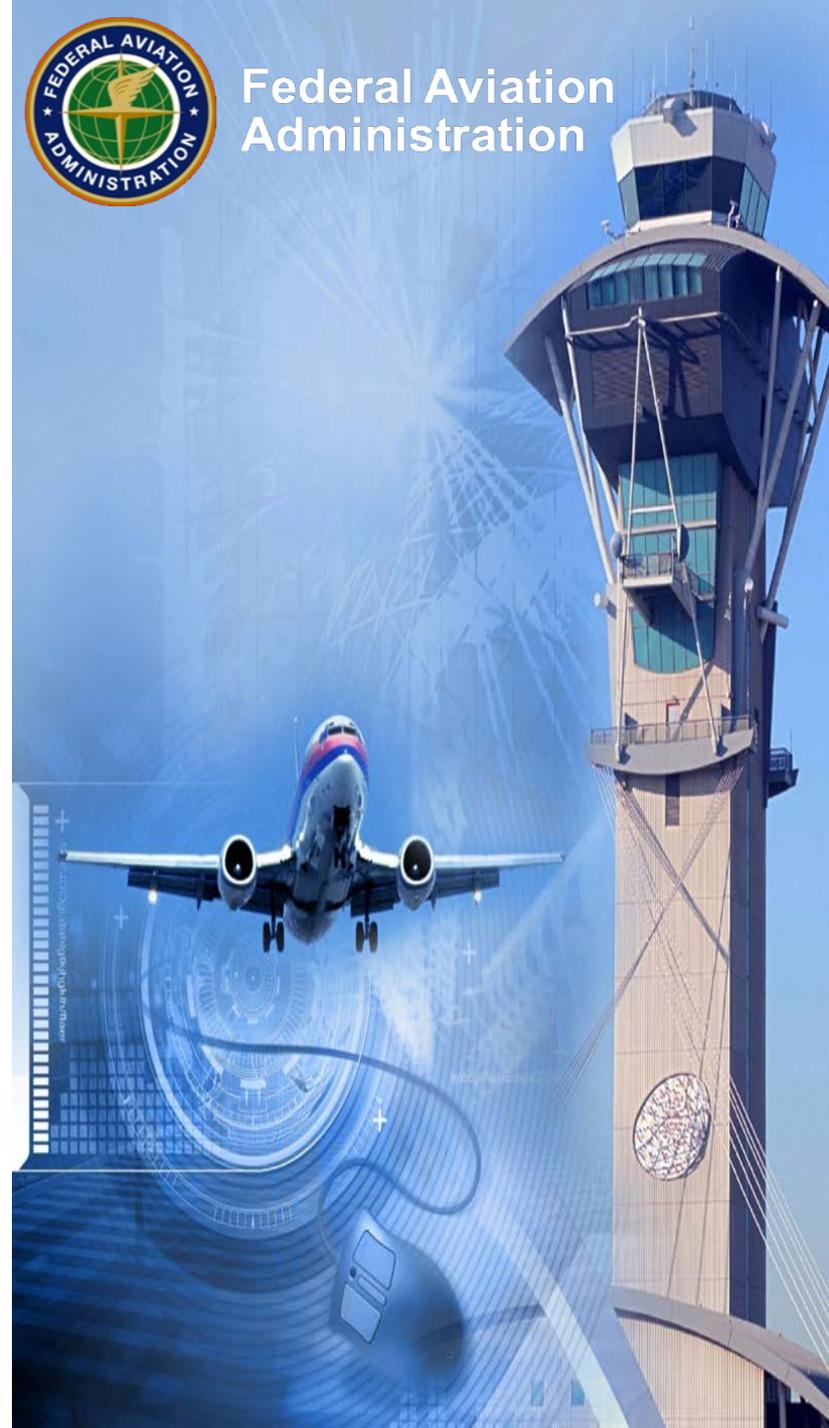




Federal Aviation  
Administration

# NSRR 2.0: Getting Started

January 2016



# Introducing NSRR 2.0

NSRR 2.0 is a complete rebuild of the current implementation of NSRR (HP Systinet-based product) with major goals of achieving better alignment with today's FAA standards and technological approaches, as well as with business requirements that are expected to emerge in the future.



# Objectives

- To advance service discoverability through an enriched metadata interface.
- To align NSRR with current SWIM implementation practices.
- To achieve further alignment with SWIM Governance policies and FAA and international standards.



# Content

- NSRR 2.0 contains **all** service metadata which is currently presented in WSDD and JMSDD documents.
- The service metadata in NSRR 2.0 is presented the **same way** as in a WSDD/JMSDD.



# Capabilities

- Allows users to store, manage and discover all SWIM-enabled services' metadata.
- Allows registered stakeholders to subscribe to service notifications.
- Allows service publishers to notify all registered stakeholders about current and upcoming changes to their services.



# Capabilities (cont.)

- Supports service lifecycle management processes in compliance with SWIM Governance Policies and other Governance regulations.
- Provides a powerful search capability for service metadata and associated documents.
- Provides support for Global Registry Identifiers (GRID).



# User Roles and Privileges

## Registry Viewer

- View registry content and menu options
- Search service metadata and content of associated documents
- Subscribe to and manage subscriptions for service notifications
- Provide feedback

## Service Publisher

- Everything that Registry Viewer can do
  - AND -
- Add and modify service metadata
- Upload documents associated with services
- Request promotion through lifecycle stages



# Requesting a User Account

Welcome to the NAS Service Registry/Repository (NSRR)

Quick Search

Enter the Service Name or a phrase it contains

Service Name	Lifecycle Stage
<a href="#">Acknowledge Weather Report (WMSCR)</a>	Proposed
<a href="#">Aeronautical Feature Data</a> <a href="#">NAVLean in R&amp;D</a> <a href="#">... Read More</a>	Proposed
<a href="#">Aircraft Surface Surveillance</a> Aircraft Position data on/near the surface of the airport as detected by the ASDE-X system. This data is based on the binary version of the ASDE-X Cat-11 data set.	Retired

User login

E-mail or username \*

Password \*

[Create new account](#)

[Request new password](#)

Log in



# Requesting a User Account (cont.)

- Fill in Personal Information.
- Select Access Type (“Registry Viewer” or “Service Publisher”).
- Select services to publish and/or create (Service Publisher only).
- Select services to be notified about (optional).
- Add a Note describing how user intends to use the NSRR.

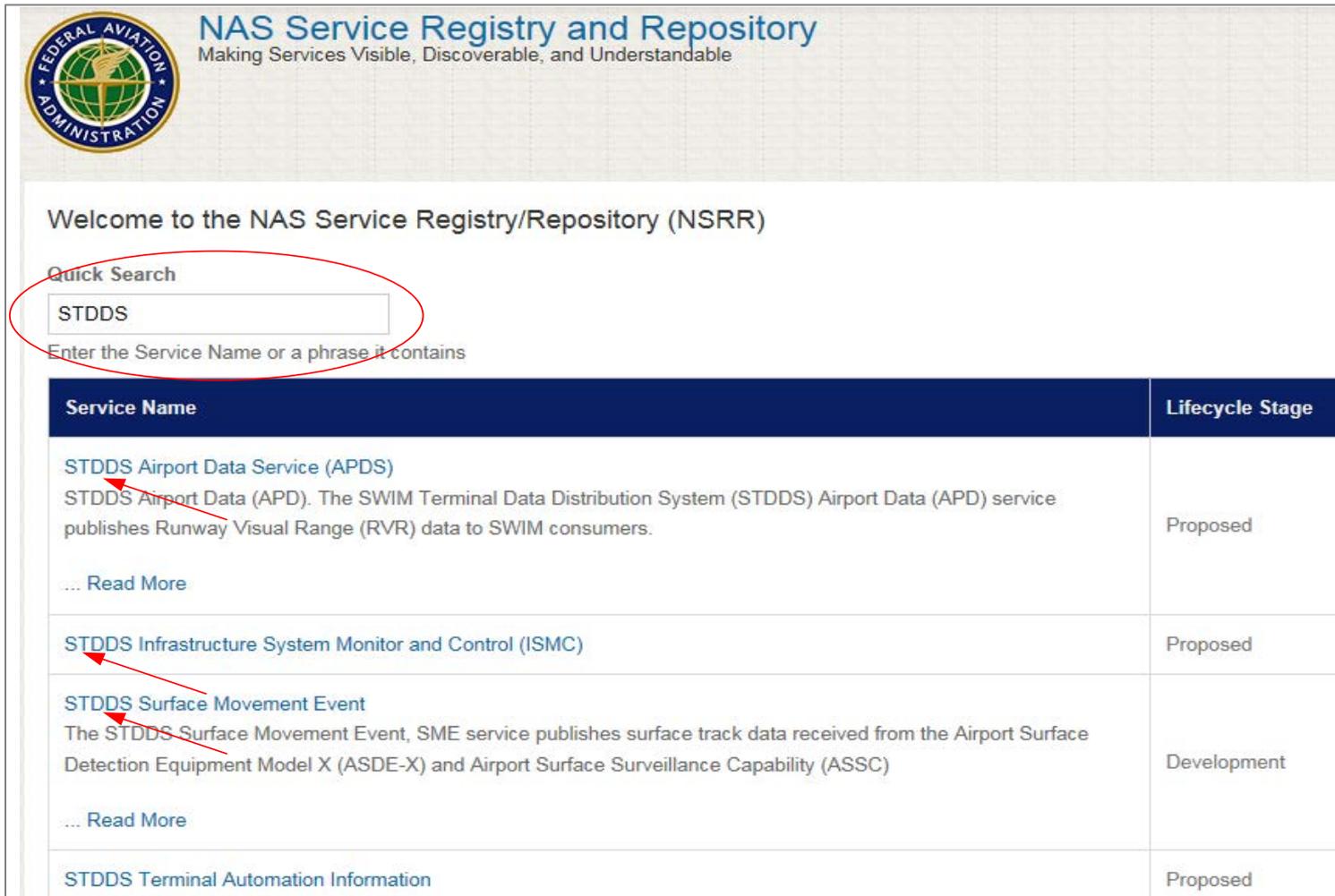


# Viewing and Browsing

- Locate a service using Quick Search on the Home page.
- Click on the name of a service.
- Browse the service content using left side Navigation Menu (note similarity to Table of Contents in a WSDD/JMSDD).



# Using Quick Search



The screenshot shows the NAS Service Registry and Repository (NSRR) website. At the top left is the Federal Aviation Administration logo. To its right is the title "NAS Service Registry and Repository" and the tagline "Making Services Visible, Discoverable, and Understandable". Below this is a welcome message: "Welcome to the NAS Service Registry/Repository (NSRR)". A "Quick Search" section is highlighted with a red oval, containing a search box with the text "STDDS" and a prompt "Enter the Service Name or a phrase it contains". Below the search box is a table with two columns: "Service Name" and "Lifecycle Stage". The table lists four services: "STDDS Airport Data Service (APDS)" (Proposed), "STDDS Infrastructure System Monitor and Control (ISMC)" (Proposed), "STDDS Surface Movement Event" (Development), and "STDDS Terminal Automation Information" (Proposed). Red arrows point from the search box to the first three service entries in the table.

**NAS Service Registry and Repository**  
Making Services Visible, Discoverable, and Understandable

Welcome to the NAS Service Registry/Repository (NSRR)

Quick Search

STDDS

Enter the Service Name or a phrase it contains

Service Name	Lifecycle Stage
<a href="#">STDDS Airport Data Service (APDS)</a> STDDS Airport Data (APD). The SWIM Terminal Data Distribution System (STDDS) Airport Data (APD) service publishes Runway Visual Range (RVR) data to SWIM consumers. ... <a href="#">Read More</a>	Proposed
<a href="#">STDDS Infrastructure System Monitor and Control (ISMC)</a>	Proposed
<a href="#">STDDS Surface Movement Event</a> The STDDS Surface Movement Event, SME service publishes surface track data received from the Airport Surface Detection Equipment Model X (ASDE-X) and Airport Surface Surveillance Capability (ASSC) ... <a href="#">Read More</a>	Development
<a href="#">STDDS Terminal Automation Information</a>	Proposed

# Viewing Service Content

## Service Profile

- Service Background
  - Service Provider
    - Points of Contact
- Service Consumers
- Service Functionality
- Security
- Qualities of Service
- Service Policies
- Environmental Constraints

[Edit »](#)

**QoS Description:**  
This section describes Quality of Service (QoS) for Acknowledge Weather Report. The QoS parameters presented in the sections below provide values for WMSCR and NEMS exchanges only

**QoS Parameters:**

[Edit »](#) [Delete »](#)

**QoS Parameter Name:** Availability  
**Value:** Greater than or equal to 99.900%  
**Definition:**  
Probability that the service is present or ready for immediate use.  
**Calculation Method:**  
 $100 * ((24 - \text{Total Outage Time in Hours}) / 24)$ . Measurements are taken daily and apply to the preceding 24-hour period  
**Unit of Measure:** Percentage, accurate to 3 decimal places



# Viewing Service Content (cont.)

## Service Interface

- › Operations
- › Messages
- › Faults
- › Data

[Edit »](#) [Delete »](#)

**Message** *ERAM Status Information (HS)*

**Message Description:**  
The ERAM Status Information message is sent when an ERAM status change occurs.

**Direction:** Out

**Message Body Type:** Text

[See Message Header](#)  
[See Message Payload](#)

[Edit »](#) [Delete »](#)

**Message** *General Information (GH)*

**Message Description:**  
A general information message is used to communicate a free-form text message from one facility to one or more other facilities. The content of the message is free-form text, contained in an inter-facility remarks field.

**Direction:** Out

**Message Body Type:** Text

[See Message Header](#)  
[See Message Payload](#)



# Menus

- The **Top Menu** provides a set of service-related functions such as: requesting lifecycle stage promotion, locating a service or its parts, contacting service support team, etc. (note: the menu is role-based).
- The **Navigation Menu** allows users to navigate inside the content of a single service.

Top Menu →



The screenshot displays the NAS Service Registry and Repository interface. At the top, a dark blue navigation bar contains the following menu items: HOME, SERVICES, LIFECYCLE MANAGEMENT, SEARCH, REPORTS, HELP, and LOG OUT. Below this bar, the main header features the Federal Aviation Administration logo on the left and the text "NAS Service Registry and Repository" with the tagline "Making Services Visible, Discoverable, and Understandable". The main content area shows a service profile for "Acknowledge Weather Report (WMSCR)". On the left, a "Navigation Menu" is visible, listing "Service Profile" with sub-items "Service Background" and "Service Provider". On the right, the breadcrumb trail reads "Home » Services » Service Profile" and the "Lifecycle Stage" is "In Review for Promotion from Definition to Development".

Navigation →  
Menu

# Search Functions

- Quick search by Service Name is available on the Home page.
- Service metadata (Search - > Search Services)
  - By keyword
  - In context (messages, service description, etc.)
  - By service categories (taxonomies)
- Documents (Search - > Search Documents)
  - By keyword
  - By document type



# Service Notifications

- Service notification provides a tool to notify interested parties about status of and changes to the service.
- Automated service notifications
  - Produced by the system (with consent of Service Publisher) when Service Publisher updates service metadata/artifacts and the service is also in the Development or Verification lifecycle stages
  - Produced when a service is promoted in the service lifecycle management process
  - Produced when a document is uploaded, changed or deleted, regardless of service lifecycle stage
- Custom notifications by Service Publisher
  - Top Menu: Services -> Service Notification



# Service Notifications (cont.)

- All users can subscribe/unsubscribe to service notifications
  - On the User Account Registration form (subscribe only)
  - Using Top Menu (Services -> Manage Notifications) by selecting a service and Subscribe or Cancel Notifications option

## Manage Service Notifications

### Quick Search

Enter the Service Name or a phrase it contains

Service Name	Notified ▾
<a href="#">En Route General Message Publication</a>	No
<a href="#">En Route Flight Data Publication</a>	No
<a href="#">En Route Operational Data Publication</a>	No
<a href="#">En Route Airspace Data Publication - ReTest v2.18 on 12/4/2015</a>	No



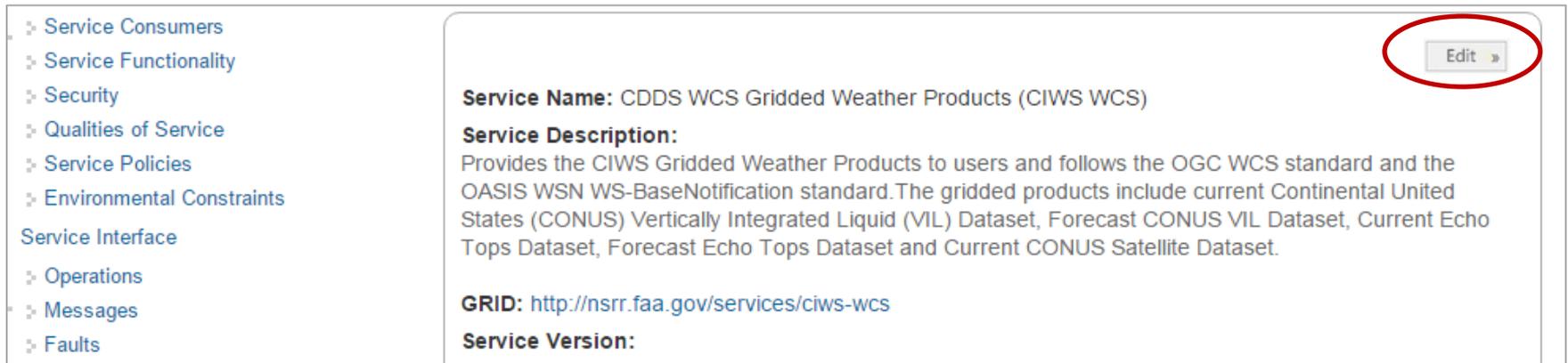
# Creating a New Service

- A Service Publisher does not create a new service by him/herself.
- The Service Publisher requests creation of a new service using the **Contact Us** menu option (Top Menu: Help -> Contact Us).
- SWIM Governance will work together with the Service Publisher to create a new service with a unique name and Global Registry ID (GRID).
- After the new service is created, the Service Publisher proceeds with adding necessary metadata and artifacts.



# Updating Service Content

- A Service Publisher can locate services he/she publishes (Top Menu: Services - > My Services).
- The Service Publisher uses Edit buttons to access Update mode.



The screenshot displays a service management interface. On the left is a navigation menu with the following items: Service Consumers, Service Functionality, Security, Qualities of Service, Service Policies, Environmental Constraints, Service Interface, Operations, Messages, and Faults. The main content area shows details for a service named 'CDDS WCS Gridded Weather Products (CIWS WCS)'. The details include a Service Description, a GRID URL (<http://nsrr.faa.gov/services/ciws-wcs>), and a Service Version field. An 'Edit' button with a right-pointing arrow is located in the top right corner of the main content area and is circled in red.

Service Name: CDDS WCS Gridded Weather Products (CIWS WCS)

**Service Description:**  
Provides the CIWS Gridded Weather Products to users and follows the OGC WCS standard and the OASIS WSN WS-BaseNotification standard. The gridded products include current Continental United States (CONUS) Vertically Integrated Liquid (VIL) Dataset, Forecast CONUS VIL Dataset, Current Echo Tops Dataset, Forecast Echo Tops Dataset and Current CONUS Satellite Dataset.

**GRID:** <http://nsrr.faa.gov/services/ciws-wcs>

**Service Version:**

# Uploading Service Documents

- A Service Publisher can upload service documents using the Service Documents page.



The screenshot shows a user interface for managing service documents. At the top right of the document entry box are two buttons: "Edit »" and "Delete »". The document details are as follows:

- Document Type:** Concept of Operations (ConOps)
- File:**  [CDDS\\_ConceptOfOperations.pdf](#)
- Document Name:** CDDS\_ConceptOfOperations
- Upload Date:** 12/21/2015 - 08:30
- Description:** CDDS\_ConceptOfOperations
- Protected:** No

At the bottom left of the interface, there is a red oval highlighting a button with a plus sign and the text "Add Document".

# Service Lifecycle Support (Compliance)

Service Publishers can check service compliance using Compliance Report (Top Menu: Lifecycle Management - > Check Compliance).

Note: “complete” or “not complete” on the report is only a guideline and human decision will be made regarding service promotion in the lifecycle management process.

*Compliance Report for CDDS WCS Gridded Weather Products*  
*Stage: Proposed*

SOA Assessment - Artifact (Metadata section: Service Documents)	Not complete
Service Version - Data field (Metadata section: Service Profile)	Complete
ATM Service Category - Taxonomy (Metadata section: Service Profile)	Complete
SWIM Service Product Category - Taxonomy (Metadata section: Service Profile)	Complete
Service Interface Type - Taxonomy (Metadata section: Service Profile)	Complete
Service Criticality Level - Taxonomy (Metadata section: Service Profile)	Complete
Service Provider - Data fields (Metadata section: Service Provider)	Complete



# Requesting Lifecycle Stage Promotion

- A Service Publisher requests promotion in the service lifecycle management process (Top Menu: Lifecycle Management - > Request Promotion).
- The request is automatically submitted to SWIM Governance for review.
- While the service is under review, its metadata and artifacts **will not be updatable**.
- The metadata is also **not updatable** when the service reaches the “Production” lifecycle stage.



# Other Functions

- WSDL Validator allows users to check WSDL documents for compliance with industry and SWIM standards (Top Menu: Lifecycle Management - > WSDL Validator).
- Contact Us allows users to communicate with NSRR support team (Top Menu: Help -> Contact Us).
  - Create new service
  - Request changes for user data
  - Questions/Suggestions
  - Noted errors/bugs

