Advancing Geographic Place-Based Understanding for Decision-Making

FGDC Service Status Checker

Monitoring the Performance and Reliability of Geospatial Web Services

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Background

Geospatial Service Health

- Web Services *discovery, availability* and *quality* are critical in fostering adoption and re-use of geospatial information.
- Service Status Checker (SSC) established to *provide service health analytics* to assess geospatial service health
SSC Objectives

Monitor • Diagnose • Alert

• Monitor and score spatial web services
• Identify performance issues
• Provide diagnostic service information
• Notify owners of service issues
• Consume results through web services
SSC Monitored Services

**Metadata Services**
- Catalog Services for the Web (CSW)
- Web Accessible Folder (WAF)
- Application Profile for Geospatial Metadata (Z39.50)

**Data Services**
- Web Map Service (WMS)
- Web Feature Service (WFS)
- Web Coverage Service (WCS)
- Sensor Observation Service (SOS)
- Open-source Project for a Network Data Access Protocol (OPeNDAP)

**Data Services**
- ArcGIS Map Server
- ArcGIS Image Server
- ArcGIS Feature Server
- ArcIMS Image Service

**Service Status Checker**
- Services
- Testing Operations
- Test Results
SSC Features for Service Providers and Developers

- Monitoring
- Notifications
- Developer API

Ensure Your Geospatial Services Are Operational

Geospatial services are designed to be interoperable so it is critical that they remain operational. Our service automatically tests and monitors a majority of Open Geospatial Consortium (OGC) service types. The only thing you need to do to get started is create an account and setup a list of your services to be tested.
SSC Features for the user community

Service Reliability
Accomplishments – *Increases in Monitoring*

<table>
<thead>
<tr>
<th>Service Type</th>
<th>January 1, 2016</th>
<th>July 10, 2016</th>
<th>Increase</th>
</tr>
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<tbody>
<tr>
<td>WMS</td>
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<td>WFS</td>
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</tr>
</tbody>
</table>

Total Services Tested Daily

- **January 2016:** 15,424
- **July 2016:** 63,939

*Increase*
Accomplishments – Design, Performance, Economy

- New Website Design
- Performance Improvements
- New Platform
- New Architecture

Http://statuschecker.fgdc.gov
Implementation Highlight Federal - GeoPlatform

NGDA HEALTH STATUS REPORT

- Very Reliable: 2779
- Mostly Reliable: 718
- Sometimes Reliable: 12
- Frequently Unreliable: 1
- Very Unreliable: 9

Date: 7/10/2016
Implementation Highlight International - GeoSur

- South America & Caribbean
- Implementation
  - Joomla with ESRI Geoportal open source
- SSC Integration
  - Joomla component
  - API v2

Http://www.geosur.info
Implementation Highlight – North Carolina

http://data.nconemap.com/
What’s Next?

GIS Service Health

- 2016 - In progress Prototypes
  - GEO Data Access Broker
  - AmeriGEOSS

- 2016 - Planned Outreach
  - GeoNode Open Source
  - GeoNetwork
  - Oskari Open Source

- 2017 - Implement new service types:
  - REST, WPS
  - KML
  - RSS/Atom feeds

- 2017 - Collect & report service attributes
  - Supported projections
  - Published file types

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FEDERAL GEOGRAPHIC DATA COMMITTEE
Summary

- SSC Supports discovery and accessibility of GIS
- Monitors a variety of services
- Supports service providers, developers, users
- Improvements in usability, performance and expandability
- Many Success Stories
- Future development and prototypes to add additional platforms and service monitoring types

Questions?

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