Community TIGER:

A Partnership Tool for Address and Spatial Data Sharing
Community TIGER

- Web (cloud) based data exchange and data management portal
- Phased and iterative
- Leverages enterprise architecture COTS technology, existing systems and proven workflows
- Utilizes and builds upon the next generation of Esri Community Maps
What are we trying to solve?

• The difficulties of address and spatial data exchange between different levels of government in the United States
  – Currently there is not a one system solution for data exchange
  – Different missions
  – Different formats
  – Varying positional and temporal accuracies
  – Inconsistent attribution
  – Over/under geographic coverage
Approach to problem solving

• Define address and spatial standards
• Engage partners and seek input
• Leverage local government data model, ensure interoperability
• Simple but efficient interfaces and tools
• Testing that involves partners
• Incorporate lessons learned from Community Maps program and earlier phases
Simplified System Architecture
Partner Toolbox

Community TIGER Partner Tool Set

- Data Model
- Data Migration Tool(s)
- Address Data Standardization and De-Duplication Tool
- Data Reviewer Batch Job
  - Address Validation
  - Spatial Validation
  - Metadata Validation
- Data Package Tool
- Procedure document
Data Migration

![Data Migration Tool Image]
Data Migration
Data Migration: Set Data Source
Data Migration: Create Workspace
Data Migration: Spatial Data Mapping

![Image of Data Preparation Toolbox](image-url)
Data Migration: Address Data Mapping

[Image of a software interface showing data mapping questions and options]
Data Migration: Data Conditioning
Data Migration: Domain Mapping
Data Migration: Domain Mapping
Data Migration: Data Load Summary

Total Number of Road centerlines: 81
Total Number of Address rows: 1267
Data Validation
Data Validation: QA/QC Results
Data Validation: QA/QC Map
Data Packaging
Data Packaging: Select Workspace
Data Packaging: Summary

1. Schema validation Pass or Fail:
   PASSED

2. Data packaging result Pass or Fail:
   PASSED

3. Upload data package
   [Upload]
Contribution Management System (CMS)

- A file tracking system for all address and spatial data transmitted from a partner to the Census Bureau.

- A secure data exchange environment created for all storage and transmission of partner data, including all required password protection and encryption when necessary.

- Track all partner files delivered to the Census Bureau
  - unedited files (testing purposes)
  - edited files
  - final transaction files
CMS: Data Upload

Community TIGER: Contribution Management

Upload Contribution
1. Upload Data
   - Upload your data
2. Preview Your Data
   - Upload revised data
3. Finalize Contribution
   - Review your map
4. Feedback from Census
   - Not submitted yet

Data Analysis
Automated QC Results
- 0 Errors
- 0 Warnings
- 0 Messages

Layers
Awaiting contribution

Content Analysis
Show on map

Suggested TIGER updates to be sent to Census:
CMS: Data Review

Community TIGER: Contribution Management

Upload Contribution
- Upload Data
- Received: January 31st, 2013
- Preview Your Data
  - Review data analysis results
  - Preview your map
  - Optionally upload revised data to resolve issues
- Finalize Contribution
- Review your map
- Feedback from Census
  - Not submitted yet

Data Analysis
- Automated QC Results
  - 5 Errors
  - 9 Warnings
  - 15 Messages
- Download as file gdc

Layers
- RoadCenterline: 99%
- AddressPoint: 98%

Content Analysis
- Suggested TIGER updates to be sent to Census:
  - RoadCenterline(adds): 12
  - RoadCenterline(modified): 22
  - AddressPoint(adds): 20
  - AddressPoint(modified): 5

Notifications
LiIn's Test

United States Census Bureau
U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
CMS: Data Analysis

Community TIGER: Contribution Management

Data Analysis

Layer visibility: All layers

<table>
<thead>
<tr>
<th>ID</th>
<th>Type</th>
<th>Layer</th>
<th>Description</th>
<th>Mark as exception</th>
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<td>RoadCenterline</td>
<td>Write GP Results to Reviewer Table</td>
<td></td>
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<tr>
<td>2166</td>
<td>Messages</td>
<td>RoadCenterline</td>
<td>Write GP Results to Reviewer Table</td>
<td></td>
</tr>
</tbody>
</table>
CMS: Finalize Contribution

Community TIGER: Contribution Management

Upload Contribution

- Upload Data
  - Received: January 31st, 2013
- Preview Your Data
  - Review data analysis results
  - Optional upload revised data to resolve issues
- Finalize Contribution
  - Review your map

Data Analysis

- Automated QC Results
  - 5 Errors
  - 9 Warnings
  - 15 Messages
- Download as file gdb

Content Analysis

- Suggested TIGER updates to be sent to Census:
  - RoadCenterline(adds) 12
  - RoadCenterline(modified) 22
  - AddressPoint(adds) 20
  - AddressPoint(modified) 5

Layers

- RoadCenterline: 99%
- AddressPoint: 98%

Feedback from Census

United States Census Bureau
U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
CMS: Census Feedback
CMS: Contribution History

<table>
<thead>
<tr>
<th>Id</th>
<th>Status</th>
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<th>Completed</th>
<th>Feedback</th>
<th>Details</th>
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<tr>
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<td>Jun 17, 2012</td>
<td></td>
<td>View Details</td>
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<td>View Details</td>
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<td>3</td>
<td>Completed</td>
<td>Jun 15, 2012</td>
<td>Jun 17, 2012</td>
<td></td>
<td>View Details</td>
</tr>
</tbody>
</table>
Census Dashboard

- The dashboard will be GEO's view of the uploaded submission

- Will allow Census staff to:
  - view Community TIGER submissions against a basemap of TIGER features
  - check the status of partner submissions
  - view quality of data
  - view summary reports

- Query tools are built in for searches by geography or partner ID
Dashboard: Trends and Statistics
Dashboard: Data Quality
Dashboard: Content Analysis
Questions?

CommunityTIGER Team

Matt Jennings
Dolly García Jové
Tiernan Erickson
Mike Clements
Dan Donello

Contact us at: geo.community.tiger@census.gov