



## NEW MEXICO DEPARTMENT OF INFORMATION TECHNOLOGY

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#### **New Mexico Broadband Data and Workflow Processing Procedure, V4.0**

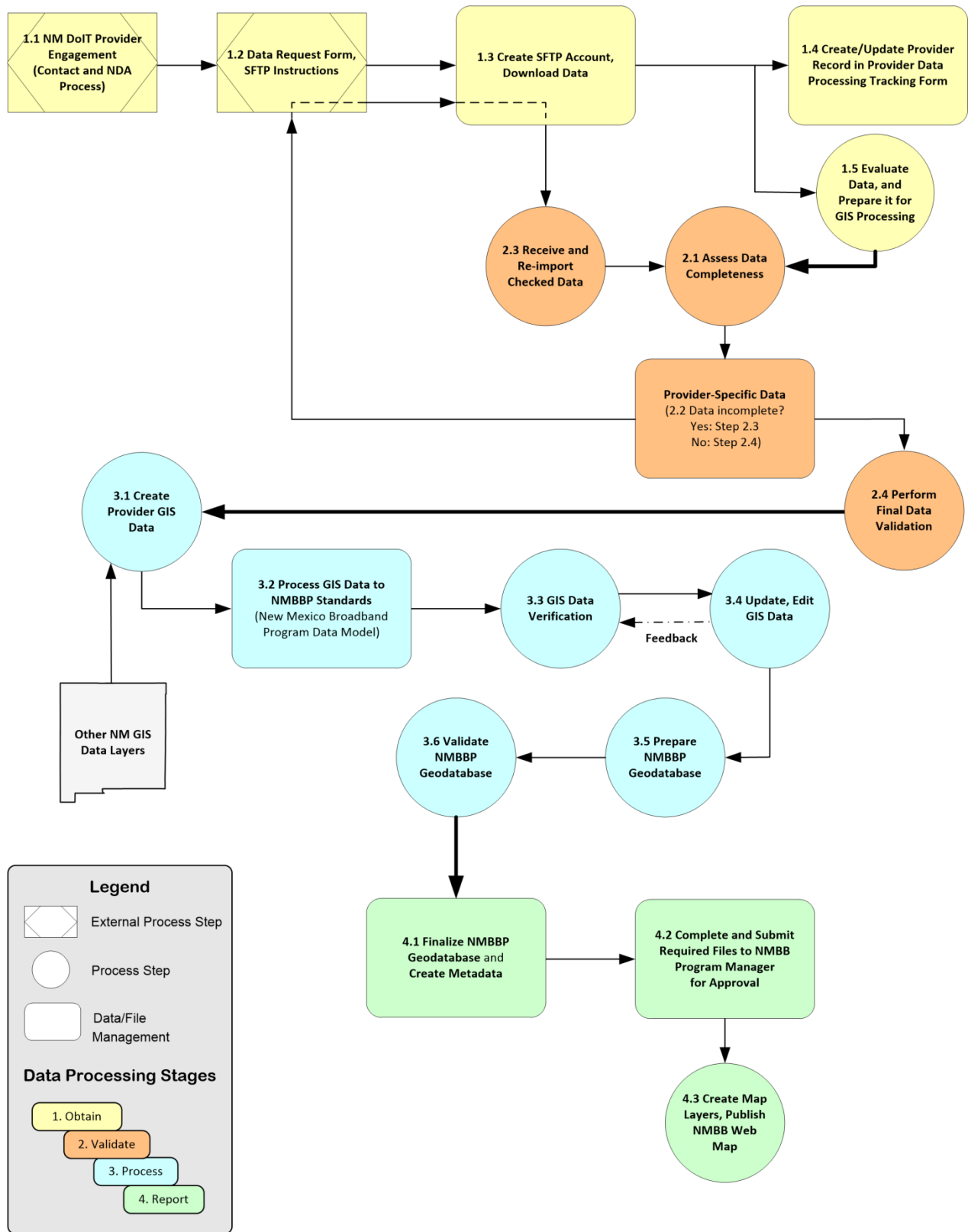
##### ***Summary***

The New Mexico Broadband Program (NMBBP) Data and Workflow Processing Procedure describe the steps to acquire, assess, process, and validate broadband data received from the Internet Service Providers (ISP). These procedures are an important element to define the degree of data reliability both in geometric accuracy and in content completeness before being incorporated into the New Mexico Broadband Data Model. This data and workflow processing document is not static and will be continuously reviewed and amended as needed.

Processing the Service Provider data includes four stages:

1. Acquisition – Acquire Provider Data
2. Validate – Test internal and external data consistency using various tools and data sources.
3. Process – Convert and normalize data to a standard geospatial model.
4. Report – Submit geospatial data to the New Mexico Broadband Program repository.

The following diagram (Figure 1) is the current New Mexico Broadband Data Workflow and Processing Procedure. Each step is detailed in the narrative on page three.



New Mexico Broadband Data Workflow and Processing Scheme V4.0 08.05.2019 EDAC  
**Figure 1 New Mexico Broadband Workflow and Processing Procedure**

## **Description**

The following statements track to Figure 1 by task number.

1. Obtain Data
  - 1.1. Provider engagement
    - 1.1.1. NM Department of Information Technology (NM DoIT) establishes contact with the Provider.
    - 1.1.2. Sign NDA with the State and EDAC, if required.
  - 1.2. Request data via the NM Broadband Data Request Form (MS Excel Worksheet), which includes the instructions for securely uploading Provider data to the EDAC SFTP site.
  - 1.3. Create SFTP account; Receive secure data
    - 1.3.1. Set up Provider account on the EDAC SFTP site; record Provider-account information in NMBB SFTP Account Management form; provide unique username and password to Provider.
    - 1.3.2. Data arrive from the Provider in a format that is generally unknown beforehand.
    - 1.3.3. Download Provider data from SFTP site to EDAC network.
  - 1.4. Create or update the specific Provider record in the Provider Data Processing Tracking Form. Ongoing: Report each Tracking Form step with analyst initials and date of task completion.

Below are a few of the items that need to be recorded on such a form.

    - 1.4.1. Record the Holding Company Name, DBA Name, FRN (if available), and if Anchor Institutions data are provided.
    - 1.4.2. Record type of files submitted; date of data submission and the initials of the receiving GIS analyst; and how data were submitted (such as FTP, email, or physical medium).
  - 1.5. Evaluate Provider data and prepare it for processing in a GIS environment.
2. Validate and Verify Data
  - 2.1. Assess the submitted data for completeness according to NMBBP data format standards; identify fields (names, types); check field codes, and standardize the values where appropriate.
  - 2.2. If it is decided that the data table from Step 2.1 is incomplete, notify the data provider and request corrected data and process Step 2.3; otherwise go to Step 2.4. Step 2.2 may involve making a judgment call. Changes and assumptions will be documented.
  - 2.3. If required, receive updated data from the Provider and re-import data.
  - 2.4. Perform final validation: all missing data filled in; all field codes checked and standardized where appropriate.
3. Create GIS Formatted Data
  - 3.1. Create Provider-specific GIS data.
    - 3.1.1. Utilize supplementary datasets as needed, such as New Mexico 911 Roads and Address Points, U.S. Census Bureau Blocks and Tracts, fiber data and other

ancillary datasets available via the New Mexico geospatial clearinghouse -- Resource Geographic Information System (RGIS; <https://rgis.unm.edu>).

- 3.2. Process GIS data per the NMBBP standards, with the required domains (NMBBP data format standards: New Mexico Broadband Program Data Model).
    - 3.2.1. The domains include: Backhaul Technology Type, Community Anchor Institutions, Download Speed Tier, End User, Geographic Unit Type, Last Mile Backhaul Capacity, Owned or Leased, Spectrum Used, Technology of Transmission, Upload Speed Tier, and Yes or No.
  - 3.3. GIS Data Verification
    - 3.3.1. Examine GIS data against tabular version of Provider data (Step 1.5).
    - 3.3.2. Check for accuracy and completeness and flag gaps or inconsistencies.
    - 3.3.3. Send Provider a map portraying data generated for feedback.
  - 3.4. GIS Data Update
    - 3.4.1. Update GIS data based on the feedback received from the Provider.
    - 3.4.2. Generate new feedback map reflecting data updates, and share with Providers for a final approval.
  - 3.5. Prepare NMBBP Geodatabase.
  - 3.6. Validate NMBBP Geodatabase.
4. Report Data to NMBBP Project Manager
    - 4.1. Finalize Geodatabase and create associated metadata.
    - 4.2. Complete and submit Geodatabase and required files (data package spreadsheet, workflow processing scheme, data processing tracking form) to NMBBP Project Manager.
    - 4.3. Create map layers; publish to the New Mexico Broadband Map for public access.