National Geospatial Collaborative

NAD 2.0 – Action Plan

Current as of September 29, 2025

1. Initiative Overview

Title: National Address Database (NAD) 2.0

Mission Statement: A plan to complete and sustain freshness of the National Address Database with full nationwide coverage of address points validated by 911 for open use to support a broad range of national interests and reduce duplicative government spending.

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Executive Summary

The National Address Database (NAD) began a decade ago and has been gradually gaining momentum as more states and local governments participate as data providers. At this writing, there are 36 states providing a total of 90 million records, equivalent to ~2/3 of the total volume of addresses in the US. Although the NAD is clearly a success story for the National Spatial Data Infrastructure (NSDI) as it is a true "roll-up" of locally produced and maintained data to create a national data asset, use cases requiring nationwide coverage by NAD consumers are not yet supported

For this Action Plan, we asked challenging questions to identify how best to reach the goals of full nationwide coverage of fresh and accurate address data from NAD contributors in support of widespread NAD usage adoption, including:

- To what degree has the NAD served to reinforce and leverage the work of local 911 authorities on keeping their data current for emergency response along with additional benefits for economic development, improved service delivery, and other uses?
- Does the mix of states and local governments participating as data providers represent the "low hanging fruit", and if so, what will be necessary to gain the participation of the remaining states?

- How can we accelerate the completion of nationwide coverage so that nationwide use cases can finally be met with NAD?
- How can we highlight and promote 911-validated data as a true differentiator for the NAD?
- To what degree has the NAD benefitted federal agencies like the US Census Bureau as well as commercial mapping companies like Google?
- In light of the substantial changes happening at the federal level, will existing levels of federal agency leadership and support for the NAD be maintained?

From these questions, we thoughtfully and purposefully propose a path for pursuing the complete NAD that we all desire as a freely available nationwide data asset of the highest quality. The Action Plan lays out two goals for achieving this end-state:

1. The NAD is complete and actively maintained, providing 100% nationwide coverage
2. The NAD data model is both simple and flexible, supporting 911 address validation and facilitating address submission

No other geospatial dataset can match the incredible range of uses as address points, so this focus is intended to generate a huge win for the NSDI with benefits and cost saving up and down the spectrum of government and private sector uses.

We boldly call it **NAD 2.0**.

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2. Problem Statement

The National Address Database (NAD) supported by USDOT aims to provide a comprehensive, continuously updated, and publicly available database of accurate address information such as residential and non-residential structures, interior units, undeveloped parcels, physical mailing addresses, and other critical locations, for various purposes, including transportation safety, Next Generation 9-1-1, and various government, non-profit, and private sector services.

The NAD assembles its address database by working with states (typically the state GIS Office) or counties, which coordinate with their respective local government authorities and 911 systems to gather and harmonize address data and “roll it up” for NAD submission. The USDOT also provides assistance in converting submitted data into the NAD schema. Local governments have the responsibility of assigning addresses following the standards established for 911 support.

The work to launch a freely available National Address Database began a decade ago, in 2015, with the first release of data in 2016.

Despite NAD's stated objectives, a complete nationwide address database, that is normalized, validated, aggregated, maintained, and openly available still does not exist for the US for the below reasons:

> **NAD Coverage:** At present, only 36 states (in whole or through local governments participating directly on their own) are participating as NAD data providers with the total volume of data (90 million records as of the June 2025 Release 19) representing approximately 2/3 of the total addresses in the US. Identified barriers for the remaining states to participate include lack of state address coordination, lack of capacity, or legal issues that block sharing of address data.
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> **NAD Freshness:** The most recent address submissions to the NAD by 8 of the NAD-participating states is more than 2 years in the past. Barriers to providing timely and/or ongoing submissions to the NAD by these states include the same issues non-reporting states encounter, namely, lack of state address coordination and lack of capacity.
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> **NAD Accuracy:** Both intra-record data quality and inter-record data consistency is a concern as NAD address sources originate not only from 911 address data owners, but other state and local sources including real property records, assessment data, etc. The disparate sources of address data may lead to data completeness issues and inconsistency for NAD consumers requiring address coverages extending across multiple NAD-reporting address sources, themselves may be made up at least in part, of non-911 responsible agencies.

The lack of a single-source, maintained and trusted nationwide complete NAD prevents the data from being adopted for any nationwide use cases by the full user community, including federal agencies.

The resultant impact to the multiple federal agencies that currently produce and maintain their own address data (e.g., Census, Postal Service) or license commercial address data to meet their requirements (e.g., Homeland Security, FCC, others) means they will necessarily continue to do so. As an example, the FCC needed a nationwide address database to administer the nationwide broadband program funded at $42.45 billion in 2021. The National States Geographic Information Council (NSGIC) provided comments to FCC during their open comment period recommending that they use NAD data, where available, but FCC and NTIA determined that

they needed a single source of nationwide coverage and contracted for commercially-licensed data from ConstQuest at a total cost of $94 million.

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3. Justification for Selection as an NGC Priority

This initiative is fully aligned with the NGC mission to *boldly pursue a more effective national geospatial ecosystem*. The NAD is a framework dataset as part of the National Spatial Data Infrastructure under the governance and oversight of the Federal Geographic Data Committee. The FGDC has struggled with gaining sufficient support and momentum for its broad portfolio of responsibilities and we believe that NGC can bring together a coalition of partners and stakeholders to bring new attention, new energy, and new action to bear on the NAD.

A complete and improved NAD will be a hugely important nationwide asset and a significant win for NSDI. No other geospatial dataset supports as many use cases as address data and the wide availability of NAD will improve a broad range of services from local to state to federal government operations. Moreover, the same data is vital to many other users outside of government and will improve any activity that relies on accurately knowing where valid addresses are located.

This initiative will build on the progress of the last decade and expand the range of partners, particularly partners in the 911 community, to better ensure that NAD is assembled and maintained from the very best quality data.

The current scrutiny of federal agency spending provides an opportunity right now to promote the use of NAD and the single source of reliable address data to meet nationwide requirements and eliminate redundant spending and duplication of effort.

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4. Goals, Objectives, & Actions

Goal 1. NAD is complete and actively maintained, providing 100% nationwide coverage

Goal Outcome: NAD meets a broad spectrum of local, state, regional and national use cases. A complete and sustained NAD can eliminate wasteful and duplicative spending at the federal and state level where current uses of commercial address data could be replaced with NAD data,

and will ensure consistency across agencies that currently rely on disparate address data that stymies interagency coordination and data sharing. Further, federal agencies that compile and maintain their own address data (FCC, US Census Bureau and the US Postal Service are the notable examples) could use NAD as their base and add their own enhancements for cost savings and efficiency.

Objective 1: Sustainable address data creation, submission, and maintenance workflows identified, developed, and promoted in service of NAD address data submission and maintenance

Outcome: Increased NAD coverage, accuracy, freshness goals achieved, via consistent and timely update cadences by NAD contributors

Actions:

- Collaborate with USDOT, NGAC, FGDC Address Theme Subcommittee, and data contributors, on cataloging gaps/challenges of existing aggregation and data quality assurance toolings and workflows (e.g., workflows developed by the Address Theme Subcommittee) and identify solutions that produce efficiency gains
- Collaborate with existing and candidate NAD contributor communities on identifying process-gap and personnel and technical resource blockers that either preclude, hinder, or reduce the completeness/quality of their NAD data contributions. Where possible identify opportunities for data contribution from those not currently participating in the NAD.
- Collaborate with the commercial data consumer and geospatial tooling provider and services/consulting community on donating/deploying their respective capabilities for the aggregation/harmonizing, quality-control, and delivery of authoritative address data to NAD.
- Collaborate with NSGIC on exercising existing or developing/administering novel programs (e.g., intern programs) that exercise identified toolings/platforms either for jump-starting or enhancing local/county/state addressing authorities NAD contribution programs
- Partner to define and recommend a long term approach for sustaining the NAD.

Objective 2: Gap-fill address point coverage solutions deployed

Outcome: Jump-start NAD nationwide coverage through data obtained from alternative sources for jurisdictions where public-sector data contributors are not yet able, ready, or willing to contribute data.

Actions

- Inventory local/county/state entities that do not currently contribute address data to NAD.
- Plan, coordinate, and help implement the inclusion of new local/county/state entities that may be able to provide data to the NAD.
- Track and support NSGIC's Advocacy efforts for the release of address data maintained by the US Census Bureau and the US Postal Service from the restrictions of title 13 and Title 39 of the US code.
- Plan, coordinate, and help implement the inclusion of Census and Postal Service address data if and when allowed by legislative changes where public-sector data contributors are not yet able, ready, or willing to contribute data.
- Plan, coordinate, and help implement the use of commercial data obtained under liberal licensing terms for jurisdictions where public-sector data contributors are not yet able, ready, or willing to contribute data until public sources can be included.
- Identify industry dataset owners willing to provide seed data, either address data or data feature types that support generation of address data under amenable licensing terms, of jurisdictions that currently cannot provide address contributions to NAD

Objective 3: NAD terms/limitations updated to reflect inclusion of seed datasets

Outcome: NAD supports gap-fill data from commercial sources, while simultaneously not encumbering NAD's non-commercial limitations or restrictions

Actions:

- Collaborate with policy and legal experts on the generation of applicable terms

Objective 4: Federal agencies currently mapping, compiling, and maintaining address points rely on NAD as their base, adding additional address-related content as needed to meet their missions.

Outcome: Supplanting commercial address use by federal agencies with NAD eliminates or reduces their licensing costs while simultaneously removing restrictions on sharing certain federal address point data

Actions:

- Generate and exercise awareness campaigns targeted to Federal agencies that leverage address datasets in their programs of NAD's fit for purpose and benefits of integrating NAD

Goal 2. NAD data model is both simple and flexible, supporting 911 address validation and facilitating address submission and NAD adoption

Goal Outcome: NAD-reported Address points are derived and validated from state and local 911 systems, and are therefore "authoritative" to the consumer, providing a distinguishing characteristic to the dataset that facilitates NAD adoption.

Objective 1: Increase the percentages of 911-validated addresses reported in NAD by reinforcing to address producers and the state and county NAD contributors, the importance of 911 as the best source of contributed address point data

Outcome: With 911 increasingly comprising the source of NAD data, NAD consumers will have higher confidence in the data quality, providing a key distinguishing characteristic of the NAD to differentiate it from all other nationwide address databases and result in increased NAD adoption/consumption.

Actions:

- Bolster influence with the 911 community via engaging with NASNA and NENA and the NHTSA's National 911 Program.
- Collaborate with NTIA/NHTSA's National 911 Program on policy adoption that future 911 federal grants include language requiring/encouraging 911 addressing sharing
- Promote awareness that validated 911 address data is the preferred data source of NAD contributions

Objective 2: NAD data model enables record-level reporting of “911 validation”, through either leveraging existing NAD data model strategies or NAD schema updates.

Outcome: Maintainers and users of the NAD will have an understanding of the 911 validation status of each record in the NAD over time making the NAD more and more authoritative.

Actions:

- Understand NAD schema update process
- Confirm if an easy path (non-schema update) exists for 911 validation; ie., is there an existing field that can represent this value?
- From above, propose to FGDC any required updates
- Work with NGAC and NSGIC to support the schema change process if needed.

Objective 3: 911 UUID is adopted by NAD community and additionally, is adopted as the permanent linkage to other address-related data housed outside of NAD

Outcome: A lightweight NAD data model; NAD addresses are modelled as a Rosetta Stone, where users can link to other content as needed instead of requiring inclusion of ancillary data within NAD.

Actions:

- obtain buy-in from 911 folks to supply their 911 UID to NAD data model
- initial socialization via NASNA meeting attendance; immediate follow-up with NENA

Objective 4: Schema requirements are evaluated and modified if necessary to ensure Personally Identifiable Information (PII) is not a component of address description

Outcome: Removes PII-focused legal issues that currently block sharing of address data by a subset of candidate NAD contributors

Actions:

- Current schema is reviewed to ensure no PII is present

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5. Working Group

Primary Goal(s):

Establish a high-functioning, cross-sector Working Group that provides leadership, coordination, and accountability for the NAD 2.0 Initiative, ensuring it reflects diverse perspectives and fosters meaningful, sustained progress.

Key Objectives:

Objective 1: Identify and recruit a diverse membership representing state and local governments, tribal entities, academia, private sector, associations, and non-profits.

Objective 2: Establish a consistent meeting schedule and shared workspace prior to Working Group launch, with an initial meeting held within 45 days of finalizing membership.

Objective 3: Formally launch the NAD 2.0 Working Group with clear purpose, roles, and responsibilities defined.

Key Outcome(s):

Short-Term (0–12 months):

- Initial NAD 2.0 proposal socialized with data contributors, US DOT, FGDC, NGAC, NASNA, NENA and others
- Full member roster established, with active participation across sectors.
    - Kick off meeting scheduled and held
    - Regular meetings of the Working group established and scheduled
    - Shared drive set up for use by the Workgroup
- Working Group charter finalized and endorsed.

- Action Plan is adopted by the Working Group and socialized
- Initial set of deliverables scoped and underway.
- Small groups formed to lead individual goal and action efforts
    - Regular small group meetings scheduled
    - Work plan for each goal and associated actions defined with timelines
    - Small group updates at each Working Group Meeting
- Annual report with accomplishments completed

Mid-Term (1–3 years): (We feel the Working group will play a significant role in defining these hence they are not yet well defined.)

- Working Group becomes a hub for coordination, with subcommittees or task forces driving focused efforts.
  Documented contributions to strategic initiatives (e.g., white papers, pilot projects, recommendations).
  Membership retention exceeds 85% annually.

Long-Term (3+ years): (We feel the Working group will play a significant role in defining these hence they are not yet well defined.)

- Working Group is recognized as a national model for inclusive, collaborative geospatial governance.
  Its efforts result in measurable improvements in data integration, access, and use for public benefit.