

Attachment B – New Westminster
NG9-1-1 Readiness Assessment Service
Request 2025



Esri Canada Consulting Service Request Order

Project Name: NG9-1-1 GIS Readiness Assessment

Customer Name: City of New Westminster

Date Submitted: January 20th, 2025

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Reason for Request / Business Benefit

Across Canada, the public safety 9-1-1 community is facing a pivotal moment in its history. The existing 9-1-1 system was designed in an era of landline telephones and assumes the calls are coming from fixed, known addresses. Today, 80% of emergency calls originate from smartphones and IP devices, often while away from home. As a result, these changes are driving this historic transformation to Next Generation 9-1-1 (NG9-1-1).

In 2017, the Canadian Radio-Television & Telecommunications Commission (CRTC) ordered the implementation and provision of NG9-1-1 networks and services in Canada through Telecom Regulatory Policy CRTC 2017-182¹. NG9-1-1 requires a near complete rebuild of the 9-1-1 infrastructure and will result in a fundamental change to the methods and workflows of datasets as well as the systems supporting emergency services in Canada.

The transition to NG9-1-1 telecommunications technology is well underway migrating from an analogue system to the Emergency Services IP Network (ESInet). This change will add speed, redundancy, and security to the telecommunications system. The current method of using cross-reference tables to link the caller's location to the Public Safety Answering Point (PSAP) servicing that location will be replaced by GIS technology.

To ensure a path forward, the CRTC mandated NG9-1-1 networks to activate their ESInets for voice services by March 1, 2022. The CRTC has also mandated NG9-1-1 to include real time texting at a future date which has yet to be determined. Additional capabilities could be part of the completed NG9-1-1 implementation. By March 4, 2025, the initial transition is supposed to be complete, and the analog 9-1-1 network will be decommissioned, however there is an intervention before the CRTC to have the

¹ See - <https://crtc.gc.ca/eng/archive/2017/2017-182.html>



decommissioning date adjusted as the majority of PSAPs have not yet transitioned to the new network. Decision is expected sometime in the first quarter of 2025. A proof of concept will begin in 2025 where 9-1-1 calls can be routed using GIS technology. The current timeline projects going live with geodetic call routing in May of 2027.

New GIS Data Specifications

The success of NG9-1-1 will be heavily dependent on authoritative GIS data and services to geospatial call-routing, thereby helping to reduce emergency response times and ultimately saving more lives and property – a primary goal of emergency responders and public safety management and stakeholders.

To ensure success, the National Emergency Number Association (NENA) has produced the NENA Standard for NG9-1-1 GIS Data Model², which is in the process of being reviewed and extended to meet Canadian requirements.

The NENA Standard groups the data into layers (or feature classes) and categorizes them into three levels of importance: *Required*, *Strongly Recommended* and *Recommended*. Each layer has specific associated attribute fields with type/format definitions and domains/ranges if applicable.

The following table lists the layers in the NENA Standard:

Importance Category	Required	Strongly Recommended	Recommended
Layers	<ul style="list-style-type: none"> • Road Centerline • Site/Structure Address Points • PSAP Boundary • Emergency Service Boundaries for Police, Fire and EMS • Provisioning Boundary 	<ul style="list-style-type: none"> • Street Name Alias • States/Provinces or Equivalents (A1) • Counties or Equivalents (A2) • Incorporated Municipalities (A3) • Unincorporated Communities (A4) • Neighborhood Communities (A5) • Other Service Boundaries 	<ul style="list-style-type: none"> • Railroad Centerlines • Hydrology Lines • Hydrology Polygons • Location Markers • Cell Sectors • Landmarks

NG9-1-1 GIS Readiness Assessment

We understand that for 9-1-1 purposes, The City of New Westminster (New Westminster) acts as the data creator for the local municipal GIS data and provides the data to downstream users. As such, New Westminster needs to understand what its challenges are with respect to meeting the NENA data standards when they come into effect.

This Readiness Assessment with Esri Canada will include the following;

² See - https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2a_ng9-1-1_gis_.pdf.



1. Assess New Westminster's database model(s) in the context of the NENA data model specifications.
2. Perform an assessment of the completeness and quality of the data compared with NENA data specifications.
3. Assess the information systems infrastructure employed by New Westminster.
4. Review the information management operations employed by New Westminster.
5. Assess New Westminster's corporate commitment and understanding of the importance of GIS data for emergency response services (9-1-1).

Scope Statement / Description of Request

Since New Westminster acts as the creator and custodian of the GIS data used for 9-1-1 purposes, this readiness assessment will focus on New Westminster's GIS data and information management operations. An understanding of how the following users access the data is required:

- TELUS uses this information to route 9-1-1 calls to the 9-1-1 Public Safety Answering Points (PSAPs) serving New Westminster.
- The PSAPs use this information to confirm the location of the caller and to forward the call or manage the dispatch of the appropriate emergency response service (fire, police or paramedic services).
- The emergency response services may also use this data in their vehicles to determine the best route to the emergency.

Subject to availability of data, Esri Canada will review the following GIS data layers:

- Road Centerlines
- Site/Structure Address Points
- PSAP Boundary
- Emergency Service Boundaries – Police, Fire and Paramedic Services
- Provisioning Boundary

This engagement is sponsored by New Westminster with the participation of the following stakeholders:

- New Westminster Police Department
- E-Comm
- BC Emergency Health Services
- New Westminster Fire Rescue Service
- Metro Vancouver Regional District



Project Approach

The Esri Canada *NG9-1-1 Readiness Assessment* is divided into three activities: Discovery, Analysis and Reporting.

Activity #1: Discovery

The discovery process is comprised of the following activities.

Kick-Off Information Session & Workshop

The Kick-Off Information Session & Workshop informs the participants about NG9-1-1 and the Readiness Assessment engagement. In addition, it is designed to stimulate discussion about how GIS data moves from its creation through to its use. These two back-to-back sessions consist of an information session and a workshop and typically lasts about two hours. The information session usually includes a broader audience while the workshop portion targets a more technical audience and encourages dialogue between the data creators, custodians, and users. The objectives are to:

- Brief participants on NG9-1-1, the scope of this Readiness Assessment Project and their expected roles
- Through a facilitated environment, share with each other the processes that...
 - Data Creators (e.g.: local planning, engineering, and others) undertake to approve addresses or roads and communicate changes
 - Data Custodians (e.g.: GIS/IT) employ to secure and make the data available to others
 - Data Aggregators employ to collect and manage province wide data
 - Data Users (e.g.: police, fire, paramedic call center operations and responders) employ to access and deal with issues they may find with the data

Tasks and Responsibilities

New Westminster

- Ensure that project participants are invited and encouraged to attend the Kick-Off Information Session & Workshop
- Present the project goals and objectives and introduce the Esri Canada team

Esri Canada

- Provide the Virtual Meeting environment (MS Teams, Zoom, etc.) or work with the client to use theirs
- Provide an NG9-1-1 overview
- Facilitate and document the departmental discussions
- Document/record the above

It is anticipated that representatives from the following will be in attendance:



- New Westminster Executives, Management, GIS, IT, Planning, Engineering, Indigenous Coordinator Liaison
- E-Comm
- New Westminster Police Department
- BC Emergency Health Services
- New Westminster Fire Rescue Service
- Metro Vancouver

The purpose of the Information Session is to deliver a consistent message including an overview of NG9-1-1, the critical role GIS plays in NG9-1-1, how different business units maybe impacted, and understanding the importance of the work and resources required to ensure New Westminster is ready for NG9-1-1 from a GIS perspective.

Document Acquisition and Review

The Esri Canada team will review any documents that New Westminster provides describing its policies, procedures and day-to-day operations that manage the GIS data noted above. Examples of the documents that are expected to be reviewed include:

- | | |
|----------------------------------|------------------------|
| • Policies and procedure manuals | • Strategic plans |
| • User manuals | • Data models & schema |
| • Specifications | • Agreements/MOU |

Tasks and Responsibilities

New Westminster

- Provide the documents in digital format

Esri Canada

- Store documentation securely
- Review and comment as required
- Return or delete documents after the project is complete

Interviews

It is expected that the following interviews will be conducted:

- New Westminster GIS/IT
- New Westminster Planning
- New Westminster Engineering



- New Westminster Indigenous Coordinator Liaison
- New Westminster Police Department
- New Westminster Fire Rescue Service
- Metro Vancouver Regional District

If necessary, Esri Canada may communicate with other potential stakeholder organizations and/or may follow-up any communication with questions via email or phone call to fill any information gaps or discuss comments.

Tasks and Responsibilities

New Westminster

- Identify the contacts in the stakeholder organizations that will be participating in interviews
- Facilitate the organization and participate in the interviews

Esri Canada

- Develop questionnaires for the interviews and/or workshops
- Have the appropriate Subject Matter Experts conduct interviews/workshops and document this information as required.
- Analyze the responses



Activity #2: Assessment and Analysis

The Readiness Assessment analyzes the following 5 study areas:

1. **NENA to New Westminster Comparisons** - A field-by-field comparison of the NENA data model with the corresponding New Westminster GIS layers currently used for 9-1-1. NOTE: ONLY the NENA "Required" layers will be assessed.
2. **Data Quality Assessment** - Quality of the GIS data with respect to the NENA standards. This is a visual and random assessment – it is not a complete data audit.
3. **Information Systems Assessment** - The information systems infrastructure employed by New Westminster.
4. **Information Management Assessment** - The information management operations associated with the above.
5. **Organizational Assessment** - The corporate commitment and understanding of the importance of GIS data for emergency response services (9-1-1).

In addition to the traditional approach of assessing and reporting, Esri Canada has developed a scorecard model that provides both granular and summary views of the readiness of New Westminster to meet the GIS information requirements of NG9-1-1.

The Readiness Assessment scoring analysis methodology uses a standardized, bottom up, hierarchical approach to quantify New Westminster and the other project participants readiness for NG9-1-1. A description of this model as well as Scorecard examples are provided in the addendum titled 'Scorecard Examples'.

Activity #3: Reporting and Deliverables

The following describe the results of the Assessment & Analysis effort.

Executive Presentation and Final Report:

An Executive level presentation on the study and its findings will be prepared and presented.

Subsequently, the final report will provide an overview of the current:

- Information management cycle
- New Westminster data management operations (data aggregation, maintenance, and use)
- Scorecards for each data layer that is assessed, information systems infrastructure, information management and corporate readiness
- Challenges grouped by the above, along with recommendations



Special Constraints/Considerations/Assumptions:

- All Esri Canada services will be provided remotely through online conferencing (i.e. Microsoft Teams or Zoom)
- New Westminster will coordinate participation of stakeholder groups in the information sessions
- New Westminster will provide the GIS data noted above, in an agreed upon format
- Other departments and external agencies may be providers or users of New Westminster and other participant data. These organizations can be included at additional cost through a Change Request
- The Final Report document provided by Esri Canada will be reviewed by New Westminster and participants within 10 business days.
- The data/data models to be reviewed are those that are provided to the PSAPs. Esri Canada would review the single aggregated dataset and not the data from other local municipalities (multiple data sets)
- If the PSAP and Emergency Service Boundary layers are not available, assessments of these layers will not be conducted

Planned Resources

Customer Project Resources	
Resource Name	Role
Esri Canada Project Resources	
Resource Name	Role
Sharon Koch	Senior Consultant
Marissa Skinner	Application Specialist
Jennifer Rolph	Project Manager
Clio Marsh Nikias	Business Analyst

Cost Summary

Deliverable	Target Date (from project kickoff)	Cost
Phase 1 - Discovery	+3 weeks	\$9000



Phase 2 – Assessment and Analysis	+6 weeks	\$9000
Phase 3 – Reporting and Deliverables	+9 weeks	\$9400
	Total Cost	\$27,400

Service Type:

☐ Time & Materials or ☒ **Fixed Price**

Payment Terms & Conditions

1. Costs are quoted in Canadian funds.
2. Payment must be made within 30 days of Customer's receipt of an Esri Canada invoice.
3. If any estimated expenses or estimated travel disbursements for Esri Canada resources are described above, they will be invoiced at actual cost.
4. Applicable taxes not included.

Project Contact Information

Customer Contact:

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Vancouver, BC

V6E 4A4



CONSULTING SERVICE REQUEST TERMS AND CONDITIONS

Services provided by Esri Canada Limited ("**Esri Canada**", **we**", **"us"** or **"our"** as applicable) under this Esri Canada Consulting Service Request Order ("**Order**") to the customer named under the Order ("**Customer**", **"you"** or **"your"** as applicable) are subject to the following terms and conditions ("**Agreement**"):

PERFORMANCE STANDARDS

1. Esri Canada will provide the services described in the Order ("**Services**") in accordance with this Agreement.
2. Esri Canada will ensure that all persons we employ or retain to perform the Services are competent to perform them and are properly trained, instructed, and supervised.

WARRANTIES AND DISCLAIMERS

3. Esri Canada warrants the Services we provide to you will be materially consistent with the Services description in the Order.
4. Esri Canada warrants the Services we provide to you will be performed using commercially reasonable care and skill.
5. You understand and agree that these warranties are the exclusive or only warranties given by Esri Canada for the Services. These exclusive warranties replace all other warranties, including the implied warranties or conditions under law of satisfactory quality, merchantability, non-infringement, and fitness for a particular purpose. Except for these exclusive warranties all Services we perform are provided "as is".
6. You are solely responsible for the manner of your use of the Services we provide and you agree that Esri Canada will have no obligation or liability to you under this Agreement for your use of the Services.

DELIVERY PERIODS AND ACCESS

7. You agree that any dates or time periods Esri Canada provides for the performance of Services under this Order are estimated dates or time periods which we may extend to account for any delays caused or occasioned by you or your representatives or by any event or circumstance outside our control.
8. We may request access to your premises or infrastructure to perform the Services. If we make this request you must allow us reasonable access as applicable to enable us to properly perform the Services. If you require us to meet any of your applicable access requirements including security requirements, you must inform us in writing of any such requirements.



ACCEPTANCE

9. If you do not inform us otherwise in writing within ten (10) days following our delivery of the Services to you, we will treat the Services as properly performed and accepted by you.

CONFIDENTIALITY

10. Each party acknowledges that it may receive confidential information from the other party during the course of our performance of the Services and this Agreement.
11. Confidential information will only include such information classified as confidential by the disclosing party or which should reasonably be regarded as confidential.
12. Confidential information will not include any information which is:
 - (i) publicly available at the time of disclosure; or
 - (ii) subsequently becomes publicly available through no fault of the receiving party; or
 - (iii) is lawfully obtained by the receiving party from another third party without any obligation of confidentiality.
13. Each party receiving confidential information agrees:
 - (i) to maintain the secrecy of the other party's confidential information;
 - (ii) to use such confidential information only for the purpose of performance of this Order;
 - (iii) not to disclose such confidential information to any other person except for those who need to know such information because of the performance of the Services and to bind such persons in writing to keep such information confidential.

PRIVACY

14. Esri Canada will not require any personal information from you for our performance of the Services unless we expressly say so in the Order. If we agree to accept any personal information from you under this Agreement, you must inform us in writing every time you deliver such personal information to us during the course of this Agreement.

PAYMENT, TRAVEL AND EXPENSES AND TAXES

15. You must pay Esri Canada the prices we have quoted in the Order for the Services in accordance with the pricing and payment terms set out in the Order and this Agreement
16. Except quoted in this Order, our prices do not include travel and expenses.



17. The prices we quoted for the Services do not include any provincial, local, and other taxes (except for income taxes payable by us). If such taxes become applicable to the Services, you must pay any such applicable tax as soon as you receive our written notice that such tax is due.

NON-RESTRICTION OF CONTRACTOR BUSINESS

18. You understand that Esri Canada also provides professional services for businesses other than yours including businesses in the same industry as yours. You agree that this Order does not prohibit Esri Canada from representing or performing professional services for such other businesses.

LIMITATION OF LIABILITY

19. **Esri Canada's entire liability for all claims in the aggregate arising from our performance of this Agreement or your use of the Services we provide will not exceed the amount of any actual direct damages up to the amounts paid for any such Services that are the subject of the claim, regardless of the basis of the claim. This limit applies collectively to Esri Canada, its subsidiaries and contractors. Esri Canada will not be liable for special, incidental, exemplary, indirect or economic consequential damages, lost profits, business, revenue, goodwill, or anticipated savings incurred in connection with the Services or this Agreement.**

FORCE MAJEURE

20. Neither party will be liable for any failure of or delay in the performance of its obligations hereunder (except in relation to obligations to make payments) for the period that such failure or delay is due to causes beyond its reasonable control. Such causes may include, but are not limited to, an act of God, cyber-attack, major disruption a public infrastructure system, natural disaster, major power outage, epidemic, public health emergency, act of government or court order.

GOVERNING LAW AND JURISDICTION

21. The performance of this Order and this Agreement is governed by the applicable laws of the Customer's jurisdiction and the applicable laws of Canada.
22. All disputes arising out of or in connection with this Agreement or in respect of any defined legal relationship associated with it or derived from it must, unless the parties otherwise agree, be referred to and finally resolved by arbitration under the applicable arbitration laws and within the jurisdiction of the Customer.

ACKNOWLEDGMENT

23. You acknowledge receipt and accept that the terms and conditions of this Agreement form our entire agreement. This Agreement is effective as of the date of last signature below unless otherwise specified in the customer's Order. The parties may execute this Agreement in counterparts or via



electronic signatures. Any such execution is valid even if the original paper document bearing both parties' original signatures is not delivered.

Any amendments to this Agreement must be in writing under a separate agreement created for such purpose and signed by an authorized representative of each party.

For clarity, any additional or superseding terms contained in any purchase order or other standard form documentation issued by you during the ordering process, other than non-conflicting product descriptions, quantities and pricing, will not apply and are of no effect. No such terms override the terms of this Agreement irrespective of the date of issuance of such ordering process documentation or any performance or action by Esri Canada unless Esri Canada expressly agrees in writing.

APPROVAL SECTION

Customer approval for Esri Canada to begin work in accordance with the requirements of this Order and the terms and conditions of this Agreement.

(Customer)

By:

Signature

Name and Position

Signature Date

Esri Canada Limited

By:

Signature



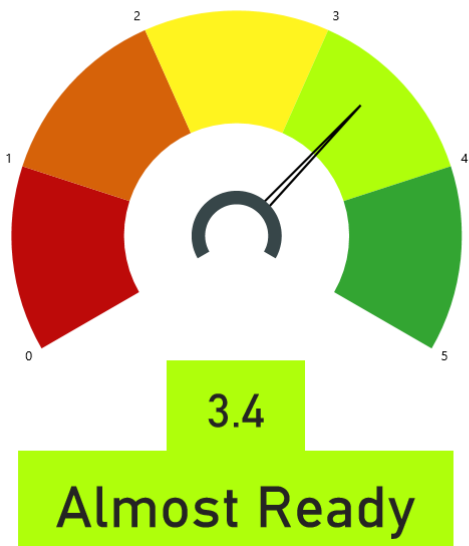
Name and Position

Signature Date



Scorecard Examples

NG9-1-1 Overall Readiness [Summary]



Areas of Assessment:

Organizational Readiness	3.8	Almost Ready
Information Management	3.1	Almost Ready
NENA Field Readiness	3.3	Almost Ready
Data Quality	3.4	Almost Ready

Figure 6 - Overall Readiness Summary [Sample]

NENA Field Readiness - Road Centerline

Field Readiness Distribution

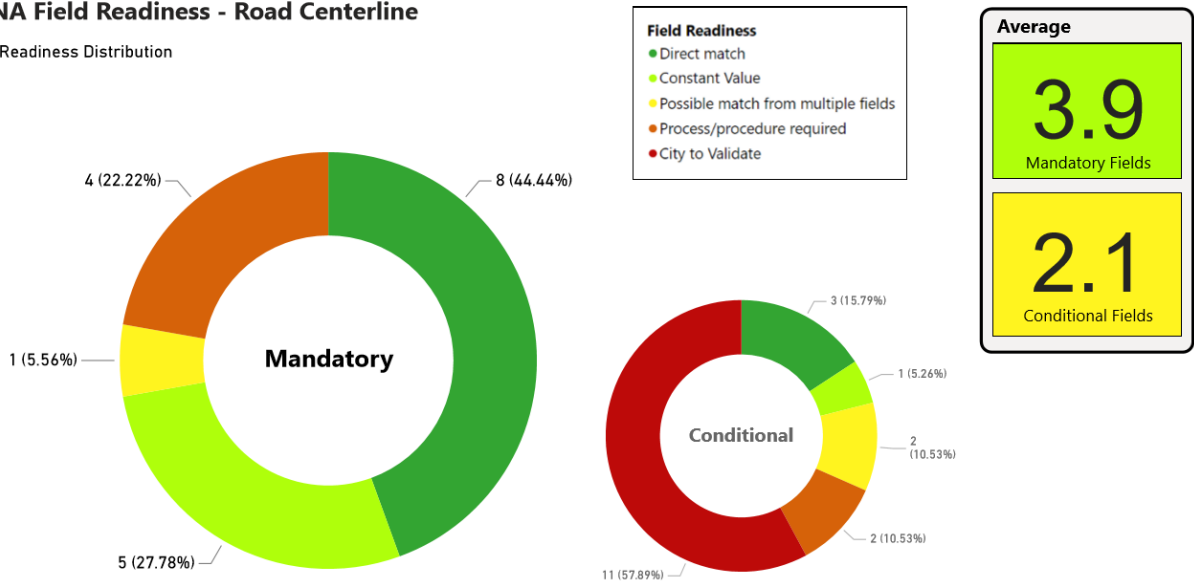


Figure 7 - NENA Field Readiness - Road Centerline [Sample]



The following describes the assessment and analysis tasks as well as the how the scoring model is applied.

Study Area 1 – Data Model Comparison

The data model comparison is a field-by-field comparison of the NENA data model field with the corresponding field in the data model provided by the organization.

Each NENA layer in the Required **Category**. As noted above the NENA required layers are:

- i. Road Centerline
- ii. Site/Structure Address Points
- iii. PSAP Boundary(s)
- iv. Emergency Service Boundaries (Police, Fire, EMS)
- v. Provisioning Boundary

The comparison of each field for each layer is scored using the following criteria:

Table 1 - Field Readiness Ranking Criteria

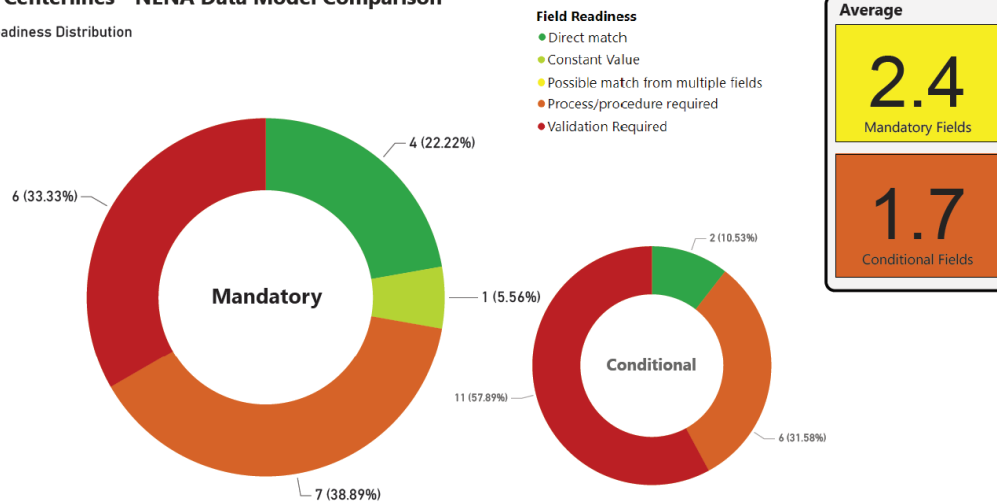
Topic Score	Readiness Description
5	Match / Ready <ul style="list-style-type: none"> Data model meets NENA standards. (Ready to be used or transferred into NENA format for use with an active NG9-1-1 system). No adjustment required.
4	Constant / Almost ready <ul style="list-style-type: none"> The values for this field are a constant that can be completed using an ETL process (ex. Populate the province as “Ontario” for all values).
3	Possible Match / Almost ready <ul style="list-style-type: none"> Multiple fields can be matched to this field. County will need to review which is the most appropriate for populating the NENA field.
2	Process / procedure / Almost ready <ul style="list-style-type: none"> Data requires adjustment and manipulation for use in an active NG9-1-1 system. (ex. County domains must be adjusted to match the NENA required domain values).
1	County to review / Not ready <ul style="list-style-type: none"> No field contains the corresponding information in the data evaluated. Data may be present in other datasets that were not evaluated.

Figure 1 - Data Model Assessment Scorecard Example



Road Centerlines - NENA Data Model Comparison

Field Readiness Distribution



Study Area 2 – Data Quality Assessment

Data quality assessment checks for errors or omissions will be conducted on the data. Note that this check is informal and should not be considered to be a full audit of the data.

Table 2 - Data Quality Scoring Criteria

Score	Data Quality Assessment Descriptions and Goals
5	Ready <ul style="list-style-type: none"> Attribute accuracy <ul style="list-style-type: none"> Checks do not reveal any errors in the fields, duplicates or values that are not meaningful (ex. Not marked “Unknown”). Required fields contain no nulls Any domain values match NENA standard domain values. Completeness/ coverage <ul style="list-style-type: none"> The coverage for the provisioning area is complete – no gaps. Topology <ul style="list-style-type: none"> No polygon/boundary gaps were found The intersections and road segments are connected. Positional Accuracy <ul style="list-style-type: none"> Checks revealed no conflicts with other features (e.g.: roads in water, overlapping parcels, address points in water, etc.) were found.
4	Almost Ready <ul style="list-style-type: none"> Attribute accuracy <ul style="list-style-type: none"> There are few missing attribute values, duplicate, conflicting or invalid attribute values (ex. Speed of –1) and most values are meaningful (ex. Not “unknown”). Completeness/coverage



	<ul style="list-style-type: none"> ○ There are a few missing features; this may be due to different production cycles (e.g.: the missing data may be in the production queue). • Topology <ul style="list-style-type: none"> ○ Few gaps and overlaps were found and were very small in scale (ex. Measured in centimeters). • Positional Accuracy <ul style="list-style-type: none"> ○ Checks reveal very few conflicts with other features (e.g.: roads in water, overlapping parcels, address points in water, etc.).
3	<p>On Track</p> <ul style="list-style-type: none"> • Attribute accuracy <ul style="list-style-type: none"> ○ There are a moderate number of issues with consistency, classification, ranges or validity. There is a mixture of meaningful and non-meaningful values. • Completeness/coverage <ul style="list-style-type: none"> ○ There are some gaps in coverage found, this may be due to different updates of the data sets that were examined. • Topology <ul style="list-style-type: none"> ○ Some area gaps and overlaps were found, and/or were not small in scale (ex. meters). • Positional Accuracy <ul style="list-style-type: none"> ○ Some features were found to be inaccurate (e.g.: a site/structure address point may be misplaced – perhaps because the parcel fabric was changed but not the address point for the property).
2	<p>Improvement Recommended</p> <ul style="list-style-type: none"> • Attribute accuracy <ul style="list-style-type: none"> ○ there are systemic quality issues (e.g.: an attribute item such as the parity value on the road centerline data is missing...). • Completeness <ul style="list-style-type: none"> ○ Some layer data did not cover the entire provisioning area. • Topology <ul style="list-style-type: none"> ○ Multiple instances of gaps and overlaps or disconnected road segments were found in the data. • Positional Accuracy <ul style="list-style-type: none"> ○ The random checks or the stated accuracy of the data reveals that the data is not meeting the NENA spatial accuracy objective of $\pm 5m$. Ex. Multiple features are found to be inaccurate (ex. Buildings on roads, addresses in water, overlapping parcels etc.)
1	<p>Significant Improvement Recommended</p> <ul style="list-style-type: none"> ○ The layer is not managed by the organization or was not in the data provided for evaluation.

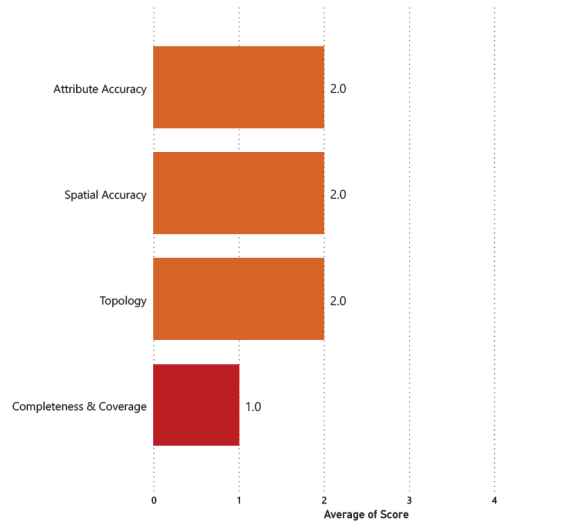
Figure 2 – Data Quality Assessment Scorecard Example



Road Centerline - Data Quality



Data Quality by Category



Study Area 3 – Information Systems Management Environment

A high-level assessment of the Information Systems Management Environment will be conducted to understand the following.

- Whether the GIS data is managed in a modern GIS systems environment.
- Are there corporate policies and procedures to govern software update cycles.
- Whether user access management/controls and change tracking processes are in place.
- Are business specific editing applications employed to reduce or eliminate human error when updating the data.
- Is there a backup and recovery process for data are in place in case the data is corrupted or lost.
- Are staff aware that the data they manage is used for the delivery of emergency services.

The following table lists the Information Systems Management assessment evaluation.

Table 3 – Information Systems Environment Scoring Criteria

Information Systems Management Evaluation	
Category	Goal
Enterprise System	<ul style="list-style-type: none"> • The GIS software products and solutions are enterprise or departmental systems and are centrally managed.
Software Update Cycles	<ul style="list-style-type: none"> • There are corporate policies and procedures to govern software update cycles.

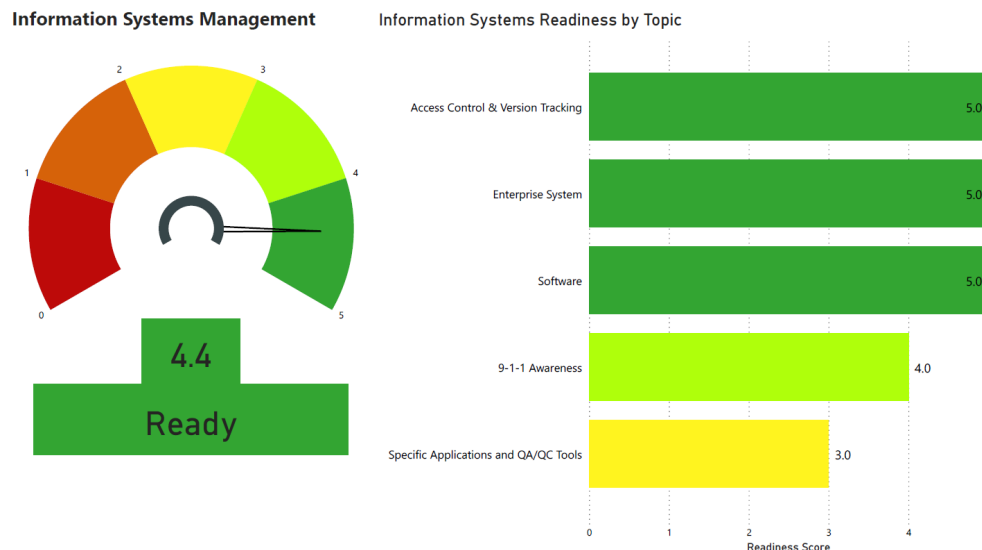


Access Control & Version Tracking	<ul style="list-style-type: none"> User access management/controls and change tracking processes are in place.
Specific Applications & QA/QC Tools	<ul style="list-style-type: none"> There are business specific editing applications employed to reduce or eliminate human error when updating the data. QA/QC tools and procedures are in place.
Disaster Management	<ul style="list-style-type: none"> There a backup and recovery process for data in place in case the data is corrupted or lost.
9-1-1 Awareness	<ul style="list-style-type: none"> Staff are aware that the data they manage is used for the delivery of emergency services.

The above uses a pass/fail scoring model for each category:

Score	Scoring Explanatory Note
5	The goal is met (pass).
1	The goal is not met (fail).
0	The category was not evaluated.

Figure 3 - Information Systems Environment Assessment Scorecard Example





Study Area 4 – Information Management

Being able to manage, maintain and improve an organization's data holdings is dependent on having a strong and robust information management environment. The following table list the components that make up the information management assessment evaluation categories.

Table 4 - Information Management

Category	Goal
PSAP Data Match	<ul style="list-style-type: none"> The data used is the same for all PSAPs and responders (police, fire and paramedic services).
Update Cycles	<ul style="list-style-type: none"> Update cycles are the same for all services and changes are within NENA goal of 72 hours.
Data Linage	<ul style="list-style-type: none"> The relationship between data creators, curators and stakeholders is understood.
Change Management	<ul style="list-style-type: none"> All stakeholders/data users are notified of changes.
Issue Management	<ul style="list-style-type: none"> The reporting and resolution of data issues is formal or coordinated.
Documentation	<ul style="list-style-type: none"> Emergency Services are noted in SOP/MOU/Service Agreements.

The following table describes the information management scoring criteria for the categories noted above.

Table 5 – Information Management Assessment Scoring Criteria

Category Score	Information Management Scoring Criteria
5	Ready – meets the goal(s) for each category noted above
4	Almost Ready – all but one of the goals noted above are in place
3	On Track – all but two of the goals noted above are in place
2	Improvement Recommended – several of the goals noted above are missing
1	Significant Improvement Recommended – many of the goals noted above are missing

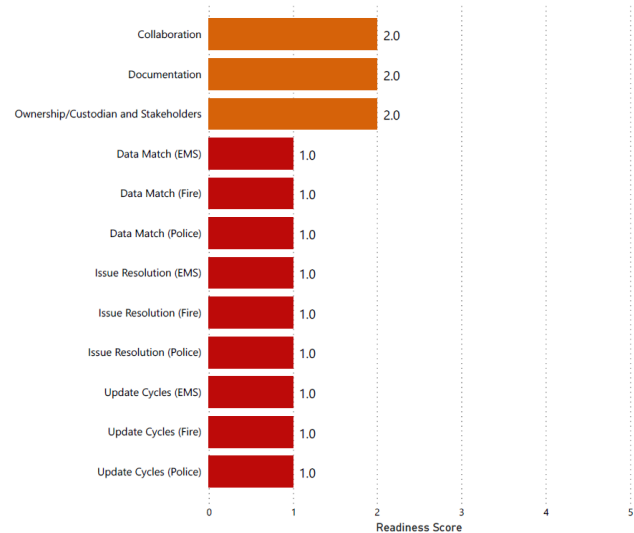
Figure 4 - Information Management Assessment Scorecard Example



Information Management



Information Management Readiness by Topic



Study Area 5 – Corporate understanding and support for GIS data used for 9-1-1 emergency response.

The NG9-1-1 corporate understanding of the NG9-1-1 initiative is critical to the transition to the new system. The following are the evaluation goals that are applied to this assessment study area.

Table 6 – Organizational Readiness for NG9-1-1

Organizational Readiness Goals	
Category	Goals
Governance	<ul style="list-style-type: none"> There is a transition team or assign responsibility for communicating and preparing for NG9-1-1.
Leadership	<ul style="list-style-type: none"> Senior management and executive leadership are aware of NG9-1-1 and the implications for the organization.
Priorities	<ul style="list-style-type: none"> The emergency response services and the associated data needs, a priority for the organization (e.g. is data provision for emergency services support an objective for the GIS/IT group).
Resources	<ul style="list-style-type: none"> Is there a commitment of resources (personnel & funds) to prepare for NG9-1-1.
Collaboration	<ul style="list-style-type: none"> Does the organization have a communications plan for staff and stakeholders to inform them about NG9-1-1.



The following table describes the organizational readiness scoring criteria for the categories noted above.

Table 7 - Organization Readiness Scoring Criteria

Category Score	Organizational Readiness Scoring Criteria
5	Ready – meets the goal(s) for each category noted above
4	Almost Ready – all but one of the goals noted above are in place
3	On Track – all but two of the goals noted above are in place
2	Improvement Recommended – several of the goals noted above are missing
1	Significant Improvement Recommended – many of the goals noted above are missing

Figure 5 - Organizational Readiness Assessment Scorecard Example

