ITS Network Documentation and Asset Management Best Practices

Tony Taylor\textsuperscript{1}; Matt McLaughlin\textsuperscript{2}

Abstract

The Iowa DOT has implemented a state-of-the-art asset management approach to improve the reliability and operations of the statewide Intelligent Transportation Systems (ITS). To properly manage, maintain and document the existing ITS communication assets statewide, the Iowa DOT currently operates a live GIS-based (Geospatial Information System) platform and network engineering software, NetDesigner, and developed a documentation standards manual for consultants, fiber contractors and the statewide ITS maintenance contractor to adhere to. The Iowa DOT also developed a workflow process, a systematic approach to manage changes, by which the responsible parties will use to define coordination steps to keep the asset management and configuration documentation up-to-date. This presentation will answer key questions regarding ITS assets including: What are the benefits of collecting and maintaining up-to-date communication assets? What kind of an approach is required to complete the task? Accurate network configuration documentation allows owners to manage their systems effectively and save time and money by avoiding unnecessary down time and improving network availability.

This presentation will describe best practices for ITS network documentation and asset management and outline important strategy considerations for public agencies to consider supporting full life cycle management.

Objectives:

1. Describe the best practices of communication asset management and network documentation as it applies to ITS assets.
2. Overview of the proposed solutions associated with as-built documentation. The solutions include all responsible parties: owners, owner’s representatives (consultants), construction contractors and maintenance contractors.

3. Overview of the benefits associated with maintaining up-to-date network configuration and documentation including: improved network availability, quicker trouble shooting, lower network management costs and enhanced partner connection communication.

4. Highlight the Iowa DOT statewide program management standard as-built documentation workflow process as an example of managing the complex task of maintaining current, up-to-date network configuration documentation.

Keywords: Practical Solutions, Preparing for the Future, Workflow Process, Smarter, Simpler

1ITS Program Manager; Iowa Department of Transportation; 800 Lincoln Way, Ames, IA 50010; 515-239-1902; Tony.Taylor@iowadot.us

2ITS Engineer; HDR; 8404 Indian Hills Drive, Omaha, NE 68114; 712-326-3742; Matthew.McLaughlin@hdrinc.com

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