



PUBLIC INTEREST FINDING

Traffic Operations Division

To: Chief Traffic Operations Engineer
From: Principal Signals, Lighting, and ITS Engineer
Subject: Recommendation for Public Interest Finding

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Based on review of the following described electronic traffic related item, the Traffic Operations Division recommends that it be certified for procurement as a public interest item in Nevada as documented here in.

Manufacturer: Alcatel Lucent Enterprises

Name/Model: OS 6000 Series Switches

Description of Device:

A field hardened Ethernet switches meeting NEMA TS2 specifications for temperature as well as support for the shortest path bridging (SPB) protocol.

Description of Need:

Shortest path bridging simplifies the deployment of Layer-2 (L2) networks by listening and sending data across all available network data paths. In the spanning tree protocol (STP), being replaced by SPB, only certain paths are made available causing the data network to undergo a massive re-convergence of the system to avoid a possible loop in the network. SPB listens to all paths and uses the path that is the most efficient based on certain performance metrics.

Economic/Cost Analysis:

The economic cost savings is that it requires less effort to maintain a statewide based data network. This manifests itself in fewer outages due to network changes (add, moves, or deletions) or outages since the system automatically, without disruption, falls back to an alternate path.

Jurisdiction/Extent: Statewide

Limitations/Conditions:

The data network environment consists of hundreds of Ethernet switches where operation of the system can be improved by moving to SPB in lieu of STP.

Date of PIF: 10/01/2018

PIF Expiration: 09/30/2020

Justification for PIF beyond 2 years:

N/A



Justification for PIF:

The SPB protocol is a relatively new standard and other manufacturers such as RuggedCom and Control have not built SPB compatible equipment. Another factor is that NDOT's core network (managed by NDOT IT) uses SPB to distribute data across the State. The use of SPB makes sense from an ITS and IT perspective that will ensure compatibility with IT.

DocuSigned by:

A handwritten signature in blue ink, appearing to be 'TMM', is enclosed in a blue rounded rectangular box.

10/17/2018

Chief Traffic Operations Engineer

Date

Approved Rejected