

# MEMORANDUM

## State of Alaska

*Department of Transportation and Public Facilities*

**To:** Joel G. St. Aubin, P.E.,  
Central Region Construction Engineer

**Date:** August 31, 2021

**Thru:** Sharon L. Smith, P.E., *RLM/FS*  
Chief of Contracts

**Telephone No:** 269-0639

**From:** Scott Thomas, P.E. *ST*  
Central Region Traffic & Safety Engineer

**Subject:** Ruggedcom- Brand Name Spec

### Determination:

In accordance with P & P 10.02.050 and Alaska Administrative Code 2 AAC 12.100, this Determination supports the specification of brand specific items for state funded construction contracts and federally funded construction contracts advertised in Central Region for a period not to exceed three (3) years, beginning on the date this Determination is fully executed by the Central Region Construction Engineer who serves as the Contracting Officer for those construction contracts.

### Items to be specified by brand name:

Siemens Ruggedcom communications devices, software, training, and support. Typical cost per device is \$2,000 for a switch, one or two of which are required in each Signal Cabinet and \$10,000 for a router, one of which is necessary for each drop to a Signal System that is connected to the public internet and in each Signal Operations Center (SOC). System management software is about \$2,000 per year. Historical note: Ruggedcom, an independent communications device manufacturer was acquired by Siemens, who now manufacture and support the Ruggedcom line as a brand in about 2016.

### Justification:

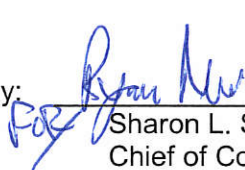


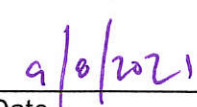
The Ruggedcom communications devices were selected for the following reasons:

- 1) Ruggedcom devices were selected by the signals and communications subcontractor as part of a competitive bid process for our system-wide communications project in 2012. Since then only Ruggedcom communications devices have been incrementally added to the system with each new signal installation and SOC upgrade.. We now have deployed over approximately 130 Ruggedcom devices. Over almost 10 years they have proven to be very reliable and durable.
- 2) Our staff is trained on the programming and operation of Ruggedcom devices. We do not need to do much programming so it is difficult to stay proficient in even one

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operating system, much less with multiple. This has important safety benefits for repairs at night, in the cold, and in emergencies. It has important efficiency benefits for training and system operation. When staff are tasked with replacing failed or damaged detection units, it often times occurs under adverse traffic, weather, and/or limited daylight conditions. Utilizing Ruggedcom devices at intersections throughout Central Region benefits the public through reduced outage time due to compatible spare parts and devices being available, and increased efficiency for staff performing the work due to product familiarity.

- 3) With all devices supported by the same manufacturer we can take advantage of the free troubleshooting and integration services offered by Siemens. When devices of separate manufacturers are deployed in the same system, the manufacturers frequently are unfamiliar with the other devices and unable to assist (free or paid) in troubleshooting or integrating devices. Even worse they require the owner or a third party hired by the owner to resolve operational or integrational issues. This is time consuming and expensive.
- 4) Northern Region uses Ruggedcom devices and we are able to mutually assist each other, sharing devices and expertise.
- 5) One of the purposes of the FHWA's relaxation of requirements for brand name specifications is to promote new and innovative technologies. Siemens is a leader in new and innovative technologies. Unforeseen product mismatch and integration problems are a frequent cause of project failures. With one manufacturer providing the devices, integration, troubleshooting, and training, we can readily adopt new and innovative technologies confident that the system can be completed and operated as represented.

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| Submitted by:   | <b>Scott Thomas</b>   | Digitally signed by Scott Thomas<br>Date: 2021.08.31 13:46:36 -08'00'                                     |  |
|                 | _____<br>Scott Thomas, P.E.<br>Central Region Traffic & Safety Engineer   | _____<br>Date   |  |
| Recommended by: | <br>Sharon L. Smith, P.E.<br>Chief of Contracts  | <br>9/7/2021<br>Date |  |
|                 | _____<br>Sharon L. Smith, P.E.<br>Chief of Contracts  | _____<br>Date   |  |
| Approved by:    | <br>Joel G. St Aubin, P.E.<br>Central Region Construction Engineer,<br>and Contracting Officer | <br>9/8/2021<br>Date |  |
|                 | _____<br>Joel G. St Aubin, P.E.<br>Central Region Construction Engineer,<br>and Contracting Officer   | _____<br>Date   |  |

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