MEMORANDUM

State of Alaska

Department of Transportation and Public Facilities

To: Sean Holland, P.E. **Date:** September 24, 2025

Central Region Regional Director

Thru: Sharon L. Smith, P.E., **Telephone No:** 269-0639

Chief of Contracts

From: Anna Bosin, P.E Subject: Ruggedcom- Brand Name Spec

Central Region Traffic & Safety Engineer

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 Contracting Officer, for those construction contracts.

Items to be specified by brand name:

The Central Region DOT&PF utilizes Siemens Ruggedcom products for network communications, including hardware, software, and associated support services. Typical costs are as follows:

Network Switches: Approximately \$3,000 per unit. Each signal cabinet typically requires one or two switches, depending on configuration.

Routers: Approximately \$10,000 per unit. Routers are required to connect signal systems to the public internet and are also installed at each Signal Operations Center (SOC).

System Management Software: Approximately \$2,000 annually for licensing and support.

Historical Context: Ruggedcom was originally an independent manufacturer of industrial-grade communications devices. Around 2016, the company was acquired by Siemens, which now manufactures and supports the Ruggedcom product line under the Siemens brand.

Justification:

The Ruggedcom communications devices were selected for the following reasons:

1) Ruggedcom devices were originally selected by the signals and communications subcontractor through a competitive bid process for the Central Region DOT&PF's (CRDOT&PF) system-wide communications project in 2012. Since that time, only Ruggedcom communications equipment has been incrementally added to the system with each new signal installation and Signal Operations Center (SOC) upgrade. To date,

- approximately 150 Ruggedcom devices have been deployed. Over nearly a decade of use, these devices have consistently demonstrated high reliability and durability.
- 2) CRDOT&PF staff are trained in the programming and operation of Ruggedcom devices. However, due to the infrequent need for programming, it is challenging to maintain proficiency across multiple operating systems. Standardizing on a single platform offers significant safety advantages, particularly during nighttime repairs, cold weather conditions, and emergency situations. It also enhances efficiency in both training and system operations. When personnel are required to replace failed or damaged detection units—often under adverse traffic, weather, or low-light conditions—familiarity with Ruggedcom equipment streamlines the process. Deploying Ruggedcom devices consistently at intersections throughout the CRDOT&PF benefits the public by minimizing outage durations through the availability of compatible spare parts and improving staff efficiency due to product familiarity.
- 3) Standardizing all devices under a single manufacturer allows the CRDOT&PF to benefit from integrated troubleshooting and support services provided by Siemens. In contrast, when devices from multiple manufacturers are deployed within the same system, the Department's experience has shown that manufacturers are often unfamiliar with each other's equipment. As a result, they are typically unable to provide effective assistance with either immediate or long-term troubleshooting and integration. In many cases, the burden of resolving operational or compatibility issues falls to the owner or a third-party contractor, leading to increased time and financial costs.
- 4) The Northern Region of DOT&PF also utilizes Ruggedcom devices, enabling mutual support through the sharing of equipment and technical expertise. This alignment fosters inter-regional collaboration and enhances operational efficiency.
- 5) One of the objectives behind the Federal Highway Administration's (FHWA) relaxation of requirements for brand-name specifications is to encourage the adoption of new and innovative technologies. Siemens is recognized as a leader in this area. A common cause of project delays and failures is the occurrence of unforeseen product mismatches and integration challenges. By utilizing a single manufacturer for devices, integration, troubleshooting, and training, we are better positioned to adopt emerging technologies with confidence that the system will be implemented and operated as intended.

Submitted by:		9/24/25
	Anna Bosin, P.E.	Date
	Central Region Traffic & Saf	ety Engineer
Recommended by:	DocuSigned by:	
	Sharon Smith	9/24/2025
	Sharon L. Smith, P.E.	Date

Approved by: Sean Holland, P.E.

9/24/2025

Sean Holland, P.E. Date Central Region Regional Director

and Contracting Officer

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Anna Bosin

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Security Level: Email, Account Authentication

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Signature

Sharon Smith

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Regional Director

State of Alaska

Security Level: Email, Account Authentication

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Signature Adoption: Drawn on Device Using IP Address: 158.145.14.57

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Electronic Record and Signature Disclosure				

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

Please read this Electronic Records and Signature Disclosure (ERSD). It concerns your rights regarding electronically undertaking, and the conditions under which you and the State of Alaska agree to electronically undertake, the transaction to which it relates (the "TRANSACTION").

Consent to Electronically Undertake the TRANSACTION

You can electronically undertake the TRANSACTION only if you confirm that you meet the following requirements by selecting the box next to "I agree to use electronic records and signature" (the "AGREE BOX"):

- 1. you can fully access and have read this ERSD;
- 2. you can fully access all of the information in the other TRANSACTION records;
- 3. you can retain all of the TRANSACTION records in a form that you will be able to fully access for later reference;
- 4. you consent to undertake the TRANSACTION electronically; and
- 5. you are authorized to undertake the TRANSACTION. (Please note that falsely undertaking the TRANSACTION may subject you to civil liabilities and penalties and/or to criminal penalties.)

If you cannot or are not willing to confirm each of these five things, do not select the AGREE BOX.

Withdrawing Consent

If you select the AGREE BOX, you can withdraw your consent to electronically undertake the TRANSACTION at any time before you complete the TRANSACTION: simply do not finalize it. The only consequence of withdrawing your consent is that you will not finalize the TRANSACTION.

If you select the AGREE BOX, your consent will apply only to this TRANSACTION. You must separately consent to electronically undertake any other transaction with the State of Alaska.

Paper Option for Undertaking the TRANSACTION

You may undertake the TRANSACTION with the State of Alaska using paper records. (State of Alaska employees who want to undertake the TRANSACTION in paper should contact the agency responsible for the TRANSACTION.) Print the paper records on the website of the State of Alaska agency responsible for the TRANSACTION, or request them from the agency. The State of Alaska homepage is at http://alaska.gov/.

Copies of TRANSACTION Records

After completing the TRANSACTION but before closing your web browser, you should download the TRANSACTION records. Or you can download the records within 30 days after

completing the TRANSACTION using the link in the DocuSign email sent to the email address you used to complete the TRANSACTION. The State of Alaska will not provide a paper copy of the TRANSACTION records as part of the TRANSACTION. Under the Alaska Public Records Act (APRA), AS 40.25.100–.295, you can request a copy from the agency responsible for the TRANSACTION, but if too much time has passed, the agency may no longer have the records when you make your request. If required under the APRA, the agency will charge a fee.

Required Hardware and Software

For the minimum system requirements to electronically undertake the TRANSACTION, including accessing and thereby retaining the TRANSACTION records, visit https://support.docusign.com/guides/signer-guide-signing-system-requirements. These requirements may change. In addition, you need access to an email account.

How to Contact the State of Alaska

To ask a question on this ERSD or the DocuSign document generated after you complete the TRANSACTION or on using DocuSign to electronically undertake the TRANSACTION, contact the Alaska Department of Administration at either of the following addresses:

State of Alaska Department of Administration 550 West 7th Avenue Suite 1970 Anchorage, AK 99501 Reference: DocuSign

doa.commissioner@alaska.gov

Subject: DocuSign

To ask any other question on the TRANSACTION records or to update the information for contacting you electronically, contact the State of Alaska agency responsible for the TRANSACTION using the contact information in the TRANSACTION records or, if those records contain no contact information, using the contact information on the agency's website. Again, the State of Alaska homepage is at http://alaska.gov/.