


TRANSMITTAL MEMORANDUM

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TO: The Honorable Mayor & City Council

FROM: Delilah A. Walsh, City Manager Initials: 

DATE: November 9, 2022 File #: MGR22-006

RE: **Exempt Procurement of ExtraHop Reveal Network Security System from the Competitive Bidding/Written Quotation Requirements of the Ketchikan Municipal Code – iT1; and Authorize Budget Transfer for the Telecommunications Division**

At its meeting of December 19, 2019, the City Council approved the purchase of an ExtraHop Reveal Network Security System combined with an IXIA Vision One Network Security Access System. The security system is due for update and the Telecommunications Division Manager Dan Lindgren has recommended expanding the ExtraHop system to enhance the Division's cybersecurity position. In order to achieve this objective, it is necessary to seek Council approval to exempt the purchase from the Ketchikan Municipal Code (KMC) and directs a budget transfer from appropriated reserves.

Subparagraph 2 of §3.12.050(a) of the KMC provides for exempting the purchase of such services from competitive bidding/quotations when:

"Supplies, materials, equipment or contractual services which can be furnished only by a single dealer, which have a uniform price wherever purchased or which are telecommunications supplies, materials, or equipment purchased by KPU for retail sale or lease."

Further, subparagraph 6 of §3.12.050(a)(6) also allows for exemption when:

"Supplies, materials, equipment, or contractual services which should be purchased from a specific source in order to prevent incompatibility with previously purchased supplies, materials, equipment, or contractual services. For purpose of this subparagraph, the term incompatibility is defined as:

- (a) the inability to interconnect combine, interchange, or join; or
- (b) that which causes substantial duplication in maintenance, expertise or training or in the stocking of parts, materials, supplies or replacements.

Any purchase which is to be excluded from competitive bidding by the authority of this subparagraph which exceeds ten thousand dollars must first be approved by the council."

In addition to this exemption request, Mr. Lindgren is recommending a budget transfer from appropriated reserves in the amount of \$200,000 in order to purchase prior to license expiration on 12/31/2022; we will remove the licensing cost from the FY23 budget prior to finalization.

The rationale for the exemption and budget transfer is detailed in Mr. Lindgren's attached memorandum and needs no further elaboration on the part of the Manager's Office. I concur with the Division Manager's recommendation.

Mr. Lindgren will be attending the City Council meeting of November 17, 2022, in order to address any questions and/or concerns that Councilors may have.

A motion has been prepared for City Council consideration.

RECOMMENDATION

Pursuant to subparagraphs 2 and 6 of §3.12.050(a) of the KMC, it is recommended the City Council adopt the motion exempting the procurement of ExtraHop Reveal Network Security System from iT1 in the amount of \$223,511 from the competitive bidding/written quotation requirements of the KMC; and approving a budget transfer of \$223,511 from appropriated reserves to the Security Capital Improvement Project.

Recommended Motion: Pursuant to subparagraphs 2 and 6 of Section 3.12.050(a) of the Ketchikan Municipal Code, I move the City Council exempt the procurement of ExtraHop Reveal Network Security System from iT1 in the amount of \$223,511 from the competitive bidding/ written quotation requirements of the KMC; and approve a budget transfer of \$223,511 from appropriated reserves to the Security Capital Improvement Project.



Memorandum

To: Delilah Walsh, KPU General Manager

From: Dan Lindgren, KPU Telecommunications Division Manager

Date: November 8, 2022

Subject: **Request to Exempt the Procurement of ExtraHop Reveal Network Security System in the amount of \$223,511 from the Competitive Bid/Written Quotation Requirements of the Ketchikan Municipal Code – iT1.**

The purpose of this memorandum is to request that the General Manager seek City Council approval to exempt the procurement of ExtraHop Reveal Network Security System in the amount of \$223,511 from the competitive bid and written quotations requirements of the KMC and approve a budget transfer of \$223,511 from Appropriated Reserves to the Security Capital Project.

Background

At the December 19, 2019 City Council meeting, the City Council approved the purchase of an ExtraHop Reveal Network Security System combined with an IXIA Vision One Network Security Access System. The system has been working great, but we need to update and expand the Extrahop system so that we may continue our efforts to enhance our cyber security position.

As it relates to protecting itself from crippling ransomware attacks (and/or malware attacks) the City has multiple organizational areas of concern:

1. KPU Telecommunications' network.
2. The City's IT network.
3. KPU Electric's SCADA network.
4. KPU Water's control system.
5. First Responder networks.

Each of these entities (as well as any number of key/larger organizations in Ketchikan) enjoys one common/unique factor – they are 'networked together' via KPU Telecommunications' OWAN fiber network. This provides KPU-Tel the unique capability (if equipped with the proper Security System(s) of providing powerful ransom/malware surveillance and detection services – identifying typical 'bad actor' network activity/infiltrations prior to an attack.

Many municipalities (including at least one in Alaska) have been subject to crippling ransomware attacks, and increasingly electric utilities are under cyberattack. Ransomware attacks are infamous for shutting down municipal networks and services – holding all data and operations

hostage for days or weeks – until a ransom is paid – or the victim-municipality spends hundreds of thousands (or millions) of dollars completely rebuilding their networks.

Past Practices vs Present Danger

In the past most organizations – including KPUT – have practiced a “castle and moat” approach to preventing an attack. Simply put, this approach utilizes best technical preventative practices in an attempt to keep the bad actors from ever getting inside the ‘castle walls’.

Unfortunately, the bad-actors have become (as evidenced by the increasing number of federal, State, and local government ransom attacks) adept at breaching the typical castle/moat security protections. The past practices, while still necessary, are not enough.

Increasingly cybercriminals are penetrating organizations by taking advantage of the ubiquitous nature of the ‘Internet of Things’ (IoT). In today’s IoT world – where seemingly every device is connected to WiFi and/or the Internet – cybercriminals seek to (and only need to) infect a single device. Having done so, the cybercriminal has crossed the traditional ‘moat’, is now inside the ‘castle wall’ – at which point the cybercriminal’s software can begin spreading laterally (or ‘East-West’) throughout an organization’s network – seeking and establishing the administrative points at which it can take the network hostage (or otherwise do catastrophic damage).

Accordingly, to supplement our existing ‘castle/moat’ network security, and to best-protect KPU-Tel’s critical telecommunications network – KPU-Tel invested in the ExtraHop Reveal Network Security system that will provide lateral ‘East-West’ visibility inside our network (‘inside our castle walls’).

KPU-Tel’s investment in the requisite security system(s) provides an extraordinary additional benefit which has enhanced our cybersecurity capabilities immensely. KPU-Tel has also offered this ‘East-West’ visibility throughout the City’s network, as well as to our commercial customers (any customer connected to KPU-Tel’s fiber OWAN network). This advanced (and otherwise unaffordable) data/network security service is available to multiple agencies and businesses throughout Ketchikan and we have customers ordering and looking at ordering this service.

Vendor Selection

KPUT researched this issue extensively, including a review of technologies utilized by other ILEC’s throughout the United States. Based upon that research, and onsite trial of systems provided by several vendors. KPU selected the Extrahop’s Reveal(x) system (when utilized with a complementary software system provided by Ixia) provided the visibility and threat assessment capability inside our network (‘behind the moat’):

Since this expenditure is above \$10,000, this purchase requires competitive bids or written quotations unless the City Council approves an exemption. Section 3.12.050(a)(6) of the Ketchikan Municipal Code provides an appropriate exemption for this transaction. Subparagraph (6) states the following:

“Supplies, materials, equipment, or contractual services which should be purchased from a specific source in order to prevent incompatibility with previously purchased supplies, materials, equipment, or contractual services. For purpose of this subparagraph, the term incompatibility is defined as:

- (a) the inability to interconnect combine, interchange, or join; or
- (b) that which causes substantial duplication in maintenance, expertise or training or in the stocking of parts, materials, supplies or replacements.

Any purchase which is to be excluded from competitive bidding by the authority of this subparagraph which exceeds ten thousand dollars must first be approved by the council.”

KPU has utilized the Extrahop Reveal Security System (in concert with the Ixia system) for the past 3 years.

Specifically, only these two systems (Extrahop and Ixia) are compatible with KPUT’s existing network – because only these two systems are capable of interconnecting with KPUT’s very complex multicast multi-layered telecommunications network (consisting of multiple layers of traffic simultaneously streaming millions of streams of voice, video, and Internet data) such that:

1. We can tap directly into KPUT’s fiber network to filter out specific traffic requiring analysis (otherwise avoiding a costly, unaffordable and very complex connection into the Core).
2. We can necessarily scale and prioritize exactly which network elements and traffic is analyzed – thereby providing the requisite level of accuracy.
3. We can avoid unaffordable pricing-models (typically designed for large Enterprise corporate customers) - based upon ‘address-space-addresses’. As an ILEC, KPUT’s network utilizes tens of thousands of ‘addresses’ throughout its network. Only the ExtraHop and Ixia solutions enable KPU to filter-out the addresses (avoiding other vendor’s exorbitant per-address fees) for billing purposes.

Accordingly, I recommend seeking approval from the City Council to exempt this procurement in the amount of \$223,511 from the competitive bidding and written quotation requirements of the KMC.

Budget Transfer:

This project is technically for the 2023 budget period as our present system licenses expire on 12/31/22. Extrahop provided discounted pricing if we purchase in November, and as a practical matter a PO would need to be executed prior to 12/31/22 so it cannot wait until the 2023 budget is finalized. We are recommending that we complete a budget transfer from appropriated reserves to the 2022 Security Capital Project to complete this purchase now and take advantage of the offered discount. We will be able to reduce the 2023 Security Capital Budget by \$200,000 to offset the transfer from Appropriated Reserves.

Recommended Motion:

Pursuant to Section 3.12.050(a)(6) of the Ketchikan Municipal Code, I move the City Council exempt the procurement of ExtraHop Reveal Network Security System from IT1 in the amount of \$223,511 from the competitive bid and written quotations requirements of the KMC and approve a budget transfer of \$223,511 from Appropriated Reserves to the Security Capital Improvement Project.

Cc: Lacey Simpson, Assistant KPU Manager
Michelle Johansen, City Finance Director

Appointments to Boards and Commissions – Mayor Sivertsen

Mayor Sivertsen asked if there was any objection to appointing James W. Castle to the Port & Harbors Advisory Board, and no objections were heard.

**Exempting Procurement of Programming Content for KPU
TV From Competitive Bidding – Visions Alaska II LLC**

Moved by Bergeron, seconded by Kiffer pursuant to Section 3.12.050(a)(2) of the Ketchikan Municipal Code, the City Council exempt the procurement of KPU TV programming content from competitive bidding requirements of the Ketchikan Municipal Code; authorize the general manager to purchase programming content from Visions Alaska II LLC; and approve funding from the 2019 Telecommunications Division's Broadcast Content Fees Account No. 630.04.

Motion passed with Flora, Coose, Kiffer, Gage and Bergeron voting yea; Zenge absent; one seat vacant.

**Budget Transfer – Exempting the Procurement of an
ExtraHop Reveal Network Security System From the
Competitive Bidding/Written Quotation Requirements of the
Ketchikan Municipal Code – Zones LLC**

Moved by Bergeron, seconded by Kiffer pursuant to subparagraph 6 of Section 3.12.050(a) of the Ketchikan Municipal Code, the City Council exempt the procurement of an ExtraHop Reveal Network Security System from the competitive bidding/written quotation requirements of the Ketchikan Municipal Code; authorize the acquisition of such a network security system from Zones LLC at a cost of \$189,772; approve a budget transfer in the amount of \$189,772 from the Telecommunications Division's 2019 4G/LTE Capital Account to CO Transmission – Network Monitoring Capital Account; and direct the general manager to execute the contract documents on behalf of the City Council.

Motion passed with Flora, Coose, Kiffer, Gage and Bergeron voting yea; Zenge absent; one seat vacant.

**Budget Transfer – Exempting the Procurement of an Ixia
Visions One Network Security Access System From the
Competitive Bidding/Written Quotation Requirements of the
Ketchikan Municipal Code – CDW-G**

Moved by Bergeron, seconded by Kiffer pursuant to subparagraph 6 of Section 3.12.050(a) of the Ketchikan Municipal Code, the City Council exempt the procurement of an Ixia Vision One Network Security Access System from the competitive bidding/written quotation requirements of the Ketchikan Municipal Code; authorize the acquisition of such a network security access system from CDW-G at a cost of \$82,961; approve a budget transfer in the amount of \$82,961 from the Telecommunications Division's 2019 4G/LTE Capital Account to the CO Transmission – Network Monitoring Capital Account; and direct the general manager to execute the contract documents on behalf of the City Council.

Motion passed with Flora, Coose, Kiffer, Gage and Bergeron voting yea; Zenge absent; one seat vacant.