



AGENDA COVER MEMO

Memorandum Date: November 6, 2023

Order Date: November 28, 2023

TO: Board of County Commissioners

DEPARTMENT: Sheriff's Office

PRESENTED BY: Lieutenant Ryan Wells
Brian Greig, Radio Network Coordinator

AGENDA ITEM TITLE: ORDER/IN THE MATTER OF ENTERING INTO A CONTRACT WITH AVIAT US, INC IN THE AMOUNT OF \$242,966.00 FOR MICROWAVE UPGRADES BETWEEN BLANTON HEIGHTS AND LANE COUNTY AND DELEGATING AUTHORITY TO THE COUNTY ADMINISTRATOR TO EXECUTE THE CONTRACT

I. MOTION

Move approval of a contract with Aviat US, Inc. in the amount of \$242,966.00 for microwave upgrades between Blanton Heights and Lane County and delegate authority to the County Administrator to execute the contract.

II. AGENDA ITEM SUMMARY

The Board is being asked to approve a contract with Aviat, US LLC to upgrade the microwave link between Blanton Heights and the Lane County Sheriff's Office. This is a planned upgrade which will complete necessary work on the existing microwave links.

III. BACKGROUND/IMPLICATIONS OF ACTION

A. Board Action and Other History

In 2005, the Sheriff's Office (LCSO) entered into an Intergovernmental Agreement with Eugene Water and Electric Board (EWEB) to establish a Public Microwave Radio Network, the Network. The Network was designed so the parties could share in the system to communicate amongst common service territories and with each other.

The Network agreed to manage the components, including microwave and other electronic and non-electronic equipment necessary for transportation of information signals, optical fiber and other network equipment and the technical

and administrative functions necessary to maintain and operate it.

The Network was developed through joint capital contributions and Homeland Security Grant funding. It was agreed that the development, operation and future upgrades would be shared equally between LCSO and EWEB.

B. Policy Issues

None

C. Board Goals

Strategic Priority 1: Safe, Healthy County – Public Safety and Service Delivery

The radio network system is used primarily by first responders and utility companies. A robust network ensures communications will continue throughout the system in times of emergency response.

Strategic Priority 3: Robust Infrastructure – Preparedness and Operational Readiness

Upgrades an infrastructure that supports environmental monitoring and emergency alerts.

D. Financial and/or Resource Considerations

This project is funded equally by EWEB and LCSO. For the portion LCSO is contributing, funds were set aside in the Communication Network program and appropriated through the County's adopted FY 2023-2024 budget. EWEB will reimburse Lane County for their share of the project costs per the terms of the original IGA.

Aviat pricing is through a Cooperative Purchasing Agreement with National Association of State Procurement Officers (NASPO), contract 00318 and is excluded from the competitive bidding process.

E. Health Implications

None

F. Analysis

Currently, Network communications facilities and equipment have aging microwave links which need replaced as they are no longer supported and parts, available only on the used market, are hard to find. One of these links is the Lane County courthouse roof microwave link to Blanton Heights. This link carries a large majority of the radio system traffic between LCSO and Springfield dispatch centers, and east along HWY 126 to the EWEB power facilities control systems.

Due to the age and susceptibility of failure, this link needs upgraded and replaced with the current design provided by Aviat. It is a direct replacement for the older equipment and is in line with all other sites along HWY126 to assure data hand off is uniform to each site and to maintain a single layer of performance and equipment maintenance and repairs.

This project will start within six months pending the arrival of the parts and weather windows. The upgrades support LCSO, EWEB, Lane Regional Interoperability Group, Oregon Department of Forestry and the University of Oregon radio communications equipment, electrical power grid controls, fire cameras and data needed to support all these systems.

G. Alternatives/Options

Due to the design and uniformity needs for this leg of the Microwave system, there are no alternatives to this project. This is a direct upgrade by the manufacturer for the upgrades needed on the entire system.

IV. RECOMMENDATION

Recommend proceeding with the contract with Aviat to provide the upgrade services needed.

V. TIMING/IMPLEMENTATION

This will take 6-12 months to complete and test.

VI. ATTACHMENTS

Board Order
Draft Aviat Contract

BEFORE THE BOARD OF COMMISSIONERS OF LANE COUNTY, OREGON

ORDER NO: 23-11-28-12

In the Matter of ENTERING INTO A
CONTRACT WITH AVIAT US, INC IN THE
AMOUNT OF \$242,966.00 FOR
MICROWAVE UPGRADES BETWEEN
BLANTON HEIGHTS AND LANE COUNTY
AND DELEGATING AUTHORITY TO THE
COUNTY ADMINISTRATOR TO EXECUTE
THE CONTRACT

WHEREAS, the Lane County Sheriff's Office (LCSO) and Eugene Water and Electric Board (EWEB) share equally in a Public Microwave Radio Network (The Network); and

WHEREAS, the microwave links are due for a planned replacement and LCSO and EWEB will share equally in the cost; and

WHEREAS, the LCSO has funding in reserves to pay their share of the upgrades; and

WHEREAS, pricing from Aviat is on a cooperative purchasing agreement, National Association of State Procurement Officials (NASPO) contract 00318, and does not require a competitive bid process.

NOW, THEREFORE, the Board of County Commissioners of Lane County **ORDERS** as follows:

1. Approve the contract with Aviat US, Inc in the amount of \$242,966.
2. Delegate authority to the County Administrator to execute the contract.

ADOPTED this 28th day of November, 2023.

Pat Farr, Chair
Lane County Board of Commissioners

LANE COUNTY GOODS/SERVICES CONTRACT (Contract Form A-1)

BEAR-BLANTON-LCSO COMMUNICATION SITE MICROWAVE UPGRADE

This **Contract** is entered into by and between Lane County, a political subdivision of the State of Oregon (“**County**”), and Aviat US, Inc, a Delaware corporation (“**Contractor**”), each a “**party**,” and referred to collectively in this Contract as “**the parties**.” County and Contractor agree as follows:

1. STATEMENT OF WORK (the “**Work**”)

- 1.1 Contractor will perform microwave networking installation, upgrade, and services needed for radio communications lines between Bear Mountain, Blanton Heights and Lane County Sheriff’s Office, in accordance with the requirements of this Contract.
- 1.2 The scope of Contractor's Work is further described in Exhibit A.
- 1.3 Contractor must perform the Work in a manner consistent with the offers and statements in Exhibit A.

2. CONTRACT DOCUMENTS

- 2.1 **The Contract.** The Contract consists of this Contract Form and the following listed exhibits, which are incorporated into the Contract as referenced here. There are no other Contract documents unless specifically referenced in this Contract.
- 2.2 **Exhibits.** With this document, the following Exhibits are incorporated into the Contract:
 - **Exhibit A** Scope of Work/Proposal
 - **Exhibit B** Standard County Contract Conditions
 - **Exhibit C** Insurance Coverages Required
 - **Exhibit D** Equipment/Fee Schedule
- 2.3 **Precedence.** In the event of a conflict between the requirements of any documents listed in subsections 2.1 and 2.2 above, the conflict must be resolved in the following order of precedence: first, this Lane County Goods/Services Contract Form, then in order: Exhibit C, Exhibit B, Exhibit A, Exhibit D.

3. CONSIDERATION AND PAYMENT

- 3.1 **Consideration.** In consideration for Contractor's performance, County agrees to pay Two Hundred Forty-Two Thousand Nine Hundred Sixty-Six Dollars (\$242,966.00). County is not obligated to pay any amount greater than that stated here.
- 3.2 **Payment.** Any payments will customarily be made within 30 (thirty) days of receipt of a properly submitted and approved invoice from Contractor. Prior to approval and payment, County may require, and if required Contractor must provide, any information which County deems necessary to verify work has been performed properly in accordance with the Contract.
- 3.3 **Invoice.** Send invoices by mail or by email to the following addresses:
 - By Mail:** Lane County Sheriff’s Office, Attn: Fiscal
125 E 8th Avenue
Eugene, OR 97401
 - By Email:** lcso_ap@lanecountyor.gov

4. EFFECTIVE DATE AND DURATION

- 4.1 **Effective Date.** Upon the signature of all parties, this Contract is effective July 1, 2023.
- 4.2 **Duration.** Unless extended or terminated earlier in accordance with its terms, this Contract will terminate June 30, 2025. However, such expiration shall not extinguish or prejudice either party's right to enforce this Contract with respect to any breach or default in performance which has not been cured.

- 5. AUTHORIZED REPRESENTATIVES AND NOTICE.** Each of the parties designates the following individuals as its authorized representative for administration of this Contract. Either party may designate a new authorized representative by written notice to the other.

5.1 County's Authorized Representative

Jonna Hill, Support Services Supervisor
125 E 8th Avenue
Eugene, OR 97401
Phone: 541-682-6689
Email: jonna.hill@lanecountyor.gov

5.2 Contractor's Authorized Representative

Mauricio Martinez, Sales Engineer
200 Parker Drive, Suite C100A
Austin, TX 78728
Phone: 281-229-0554
Email: mauricio.martinez@aviatnet.com

Any notice, demand, consent, approval, or other communication to be given under this Contract must be in writing and provided by email addressed to the party's authorized representative, except as provided below in this section. However, if, in either party's discretion, email is not the most appropriate method for providing notice, then notice may be provided by personal delivery; certified mail, postage prepaid, return receipt requested; or nationally recognized overnight courier. The effective date of notice shall be: for notice by email, the date and time sent if sent between the hours of 8 am and 5 pm, otherwise effective at 8am the following Business Day; for notice delivered in person, the date and time of delivery; for notice by U.S. mail, three days after the date of certification; and for notice by overnight courier, the next business day after deposit with the courier. If no representative is identified in this section, notice may be given to the person executing the Contract on behalf of that party below.

6. SPECIAL CONTRACT PROVISIONS.

- 6.1 Compliance with Coronavirus Guidelines, Laws, Rules, and Orders.** Each of the parties is aware of the continuing COVID-19 emergency and agrees that they are and will remain familiar with the CDC prevention guidelines and with federal, state, and local laws, rules, and orders regarding COVID-19 throughout the term of this Contract, and will take all necessary precautions relating to COVID-19 (and its variants), including those set out in the guidelines, laws, rules, and orders described in this paragraph. The parties have anticipated the costs of compliance with the present guidelines, rules, laws, and orders prior to entering into this Contract, and that no claim will be made by either party for such compliance.

- 7. MULTIPLE COUNTERPARTS.** The Contract and any subsequent amendments may be executed in several counterparts, facsimile or otherwise, all of which when taken together will constitute one agreement binding on all parties, notwithstanding that all parties are not signatories to the same counterpart. Each copy of the Contract and any amendments so executed will constitute an original.

SIGNATURES FOLLOW ON NEXT PAGE

SIGNATURES

CONTRACTOR'S CERTIFICATIONS:

BY EXECUTION OF THIS CONTRACT, THE UNDERSIGNED CERTIFIES TO COUNTY THAT:

- The undersigned person has the power and authority to execute this Contract on behalf of Contractor, and to bind Contractor to its terms,
- Contractor will, at all times during the term of this Contract, be qualified and professionally competent, and possess any licenses required to perform the Work,
- Contractor has not discriminated against minority, women or small business enterprises or a business that is owned or controlled by or that employs a disabled veteran as defined in ORS 408.225, and
- The Contractor has, to the best of its knowledge, complied with Oregon tax laws in the period prior to the execution of this Contract, and will continue to comply with such laws during the entire term of this Contract, including:
 - (a) All tax laws of the State of Oregon, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318,
 - (b) Any tax provisions imposed by a political subdivision of this state that applied to Proposer or its property, goods, services, operations, receipts, income, performance of or compensation for any work performed, and
 - (c) Any rules, regulations, charter provisions, or ordinances that implemented or enforced any of the foregoing tax laws or provisions.
- Pursuant to ORS 305.385(6) and OAR 150-305-0302, the undersigned as Contractor hereby swears and affirms under penalty of perjury that, to best of my knowledge, Contractor is not in violation of any tax laws described in ORS 305.380 (4)(a).

EACH PARTY, BY EXECUTION OF THIS CONTRACT, HEREBY ACKNOWLEDGES THAT IT HAS READ THIS CONTRACT, UNDERSTANDS IT, AND AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

CONTRACTOR:

AVIAT US, INC.

By: _____

Print: _____

Title: _____

Date: _____

Address:

Tax ID No.: _____

COUNTY:

LANE COUNTY

By: _____

Print: Steve Mokrohisky

Title: Administrator

Date: _____

By: _____

Print: Clifton G. Harrold

Title: Sheriff

Date: _____

Lane County Sheriff's Office
125 E. 8th Avenue
Eugene, Oregon 97401

Statement of Work

Lane County, OR
Bear-Blanton-LCSO MW Upgrade
NA220307-68428
Project Services

Release 4.0
03/22/2023

Issue Releases

Issue Number	Issue Release Date	Changes	Preparer
1.0	03/11/2022	Initial Release	C. Menor
2.0	3/11/2022	Services	G. Galvan
3.0	5/10/2022	Services updated to dual channel , No Antenna work	G. Galvan
4.0	3/22/2023	Deleted the Bear-Blanton Heights link	M. Martinez

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1. EXECUTIVE SUMMARY

1.1. Purpose of Document

This Statement of Work ("SOW") specifies the deliverables and defines the responsibilities and other relevant terms applicable to the planning and delivery of microwave and associated products from Aviat U.S., Inc. ("Aviat Networks" or "Aviat") and its partners, as well as the professional services required to engineer and implement the proposed solution for Lane County, OR ("Customer").

Execution of the services listed in this SOW is governed by Aviat's standard terms and conditions ("Agreement"). Neither party is obligated to provide any services until the Agreement is executed by both parties and an order has been placed for services by Lane County, OR and accepted by Aviat Networks. Where the terms of the Agreement differ from the terms of the SOW, the terms in the SOW shall control. Any capitalized term not defined herein shall have the meaning ascribed to it in the Agreement.

1.2. Project Scope

This SOW applies to Bear-Blanton-LCSO MW Upgrade project proposed by Aviat Networks and cannot be extended to other projects. Aviat Networks will provide the following services to Lane County, OR:

- | | |
|--|---|
| ☒ Project Management | ☒ Network Engineering |
| ☒ Transmission Engineering | ☒ Project Engineering |
| ☒ Configuration Engineering/Drafting | ☐ MPLS Network Services |
| ☐ Factory Integration and Testing | ☐ Antenna & Line Installation |
| ☒ Radio Installation and Testing | ☒ Network Integration |
| ☒ Radio Decommission | ☐ Antenna System Decommission |
| ☐ DC Power System Installation and Testing | ☐ DC Power System Decommission |
| ☐ Civil Construction | ☐ Field Technical Support |
| ☐ Structural Mapping | ☐ Structural Analysis |
| ☐ Existing Radio Baseline Testing | ☒ Existing Waveguide Sweeps |
| ☐ Tower/Monopole Design, Supply and | ☐ Shelter Supply and Installation |
| ☐ Additional Scope | |

Prevailing Wages: Yes

Freight Terms: Destination

Any required services or material not specified in this SOW will be provided by Lane County, OR and will not be considered part of Aviat Networks' responsibilities. Aviat Networks reserves the right to quote and perform services not specified in this SOW in accordance with the terms and conditions of the Agreement. Once Aviat Networks approves the new services, the new services will be added to this SOW in a mutually signed amendment to this SOW and the release of a new services purchase order. For a full list of Aviat provided equipment, please refer to the project equipment list.

Lane County, OR and Aviat Networks acknowledge that meeting the planned project completion date requires the cooperation of the parties. Any changes requested by Lane County, OR before the design freeze date stated in Appendix B will be considered part of the design finalization phase of the project and not subject to a formal change order, if at Aviat Networks' sole discretion, the requested change falls within the original scope and hours of the project. Any changes requested by Lane County, OR after the design freeze date will be subject to review by Aviat Networks and may, at Aviat Networks' sole discretion, result in a change order fee and/or a delay in delivery to the field. See Appendix B for more detail on the design freeze.

Completion and accuracy of all deliverables are subject to the integrity of the information provided by Lane County, OR. Aviat Networks is not responsible for validating the accuracy of the information provided by Lane County, OR. Any changes resulting from incorrect information provided by Lane County, OR or any third party associated with Customer, will be charged to Lane County, OR as a billable change order.

Lane County, OR furthermore agrees that any delays caused by inadequate site readiness for which Lane County, OR was responsible for may prohibit Aviat Networks from meeting the project completion date, and Aviat Networks may adjust the

completion date. Unless otherwise agreed to in a mutually signed amendment to this SOW, any cost impact such delays might have on this SOW will be charged to Lane County, OR as a billable change order. In the event of such delays, Aviat Networks and Lane County, OR will make a reasonable effort to resolve the issue and mutually agree on new project milestones.

Documents, deliverables, and work submitted by Aviat Networks to Lane County, OR shall be reviewed and approved in ten (10) working days from the date of receipt. If the documents, deliverables, or work submitted by Aviat Networks include equipment production or OEM ordering, Customer shall not review, approve, or comment on the documents, deliverables, or work, and the documents deliverables, or work shall, at Aviat's option, either be (i) placed on hold or (ii) deemed accepted.

Aviat shall invoice Customer for equipment upon shipment of the equipment. Aviat shall invoice Customer for services upon completion of the services. Customer shall pay all invoices issues by Aviat within thirty (30) days of Aviat's issuance of the invoice. If Customer does not pay an invoice within thirty (30) days of issuance of the invoice, Aviat shall assess a late penalty of the lesser of one-and-a-half percent (1.5%) or the greatest amount allowed by law.

Project Summary

Number of Hops	1	Number of Sites	2
Number of parallel RF Channels	2x	Number of Sites	2
Radio Equipment Family	IRU600 / Eclipse	Frequency Band(s)	L6GHz
Link Capacity	180Mbps per char	Protection Type(s)	MHSB
Traffic Type	ETH+DS1	Project Locations (States)	OR

1.3. Supporting Documents

The following documents will be provided by Aviat Networks in support of this project and must be accepted by Lane County, OR as part of the project completion. It is Lane County, OR's responsibility to provide signed copies of the documents to Aviat Networks before the final project completion.

	Document	Master Document	Requires Customer Acceptance/Sign-off?
Planning	Project Schedule	Project Schedule	Yes
	Statement of Work	This document	Yes
	Statement of Work Sign-off	This document	Yes
Design	DC Power calculations	Design Freeze Package	No
	Design Freeze Package	Design Freeze Package	Yes
	Equipment List	Equipment List	No
	Frequency Datasheets	Path Survey Report	No
	Floor Plan	Installation Specifications	Yes
	IP Plan	Design Freeze Package	Yes
	NMS Plan	Design Freeze Package	Yes
	Path Calculations and Path Profiles	Path Survey Report	No
	Path Survey Report	Path Survey Report	Yes
	Rack Profiles and Wiring Diagrams	Installation Specifications	No
	Site Survey Report	Site Survey Report	Yes
	Synchronization Plan	Design Freeze Package	No
	System Layout	Design Freeze Package	No
	Traffic Plan	Design Freeze Package	Yes
Implementation			
	Antenna Installation Checklist	Installation Specifications	No
	Antenna Mounting Design	Installation Specifications	No
	Antenna System Audit Form	Installation Specifications	No
	As Built Record Sets	As Build Records	Yes
	Change Order Form	This document	Yes
	Equipment Installation Checklist	Installation Specifications	Yes
	Field Acceptance Test Plan	Installation Specifications	Yes

	Installation Specifications	Installation Specifications	No
	Injury and Illness Prevention	Installation Specifications	No
	Project Completion Sign-off	This document	Yes
	Punch List Completion Report	Installation Specifications	Yes
	Site Installation Completion Report	Installation Specifications	Yes
	Traffic Cutover Plan	Installation Specifications	Yes
	RF Cutover Plan	Installation Specifications	Aviat

1.4. System Summary

Part 1 – SYSTEM DESCRIPTION

Our proposal to Lane County, OR includes the design, engineering, supply, and installation of one (1) Eclipse Packet Node microwave radio hops with the following configuration as requested by the County:

- Blanton Heights – LCSO:
 - Existing: 2x MHSB Constellation L6GHz 30MHz 256QAM @ 4xDS3 per channel
 - Proposed Upgrade: 4x MHSB IRU600/Eclipse L6GHz 30MHz 256QAM @ 180Mbps per channel (~720Mbps), Gigabit Ethernet + DS1 with redundant modules.

The proposed new microwave radio system will provide hybrid transport of native Ethernet and native DS1 traffic. The new microwave radio system consists of the Eclipse Packet Node Intelligent nodal unit (INUe) paired with the IRU600 all-indoor RFU. This upgrade project will re-use the existing Eclipse NTUe equipment at the Blanton Heights and LCSO sites which are to be upgraded to support the new radio configuration requirements.

The Packet Nodes will be equipped with redundant Radio modules, GigE switch modules, and DS1 modules. All nodes will be equipped with DC Power and BUS Controller redundancy.

The proposed microwave radio link has been designed to meet or exceed 99.999% two-way annual path availability using the L6GHz FCC band. Our proposed path designs have been based on the existing/working Constellation paths that are being replaced and upgraded per the County's requirement.

The antenna centerlines used are based on the existing systems, with centerlines at each site verified via the existing systems' Comsearch PCN data and FCC ULS data. New dual pol antennas are proposed for the Blanton Heights-LCSO MHSB hop upgrade, with new waveguide runs proposed only for the new assumed H-pol channels being added to the hop. New proposed waveguide lengths are based on an assumption of 40ft horizontal runs in addition to the antenna centerlines. Existing antennas and waveguide runs will be re-used on the Bear Mtn-Blanton Heights MHSB/SD hop.

Our proposal includes new Breaker Panels equipped with the required breaker sizes, which are to be installed on the existing racks at all 3 sites. The proposed new waveguide extensions kits for each IRU600 RFU assumes that the new radios will be installed from the top position of each rack in compliance to Aviat standard rack unit spacing. Adjustments to the quote will be required if radio positions will deviate from Aviat's standard rack positions and spacing.

Each Packet Node INUe shelf will be supplied with 24-port RJ45 patch panels to be used as DS1 demarcation panels. The required -48VDC power plant for each site will also be supplied and engineered by the County. As part of our proposal package, we have included the preliminary Path Calculation reports for reference.

Part 2 – PROPOSED MICROWAVE RADIO EQUIPMENT

- The all-indoor RFU being proposed is the Eclipse IRU600. The IRU600 is optimized for 1+1 protection with options to be configured as 1+0 non-protected with a single XCVR module, and 1+0 repeater or 2+0 with two XCVR modules where each one can be the same or different frequency band. The IRU600 is available in FCC licensed frequency bands 6, 7, 10, and 11 GHz. The IRU600 RFU is software configurable to support 3.75 to 80 MHz channel BW sizes in modulations from QPSK to 4096QAM. The Eclipse IRU600 is equipped with a compact antenna coupling unit (ACU) with standard built-in expansion port which accommodates a low loss (<1dB) interconnection of microwave radios of the same frequency band to share the same antenna feeder system for adjacent channel operation where required.

The IRU600 RFU platform is designed with "Flexible Power Mode". This allows the IRU600 RFUs to support Standard Tx power output by default wherein it's High Tx Power output can be enabled by an optional High Power software feature license.

- The Eclipse RAC70 plug in module is a Packet Node modem card used with the IRU600 RFU. The RAC70 modem card is software configurable to support 3.75 to 80 MHz channel BW sizes in modulations from QPSK to 4096QAM providing air-link capacities up to 723 Mbps per channel. The RAC70 modem cards can be configured to operate for non-protected or protected/diversity operation. Adaptive Modulation is an optional feature providing hitless modulation switching which can be enabled via a software feature license where required.

- The proposed Packet Node indoor nodal unit (INUe) are equipped with the Eclipse DAC GE3 GigE switch module/s providing a total of five (5) Gigabit Ethernet interfaces per card, 3x10/100/1000Base-T + 2x multi-purpose GigE SFP slots). The DAC GE3 interface modules for the proposed link will be 1+1 protected (stacked) which can support either a protected (Dual Feed/Y-optical) or non-protected (Single Feed) interface to the customer's switch or router.

- The proposed Eclipse Packet Node radios will be equipped with the Eclipse DAC 16x modules. Each DAC 16x module is equipped with 16xDS1 tributary ports. Each DS1 tributary port supports circuit cross connections wherein each port can be mapped to any radio module or any supported interface module collocated on the same INUe shelf. All DAC 16x cards will be supplied and configured with 1+1 protection.
- The Eclipse Packet Node Indoor Nodal Unit (INUe) is a 2RU chassis which can support a total of 6 radios (RACs), depending on the number of interface cards (DACs) required. Without using any radio modules (RACs), the INUe can be configured as a Network Transition Unit (NTU). Each proposed INUe and NTUe configuration are equipped with a Node Protection card (NPC) to provide BUS controller redundancy and power redundancy. Our proposal also includes one AUX card per site. Each AUX card provides up to 6 software configurable Alarm I/O ports, and up to 3 user data ports that are software configurable as RS-232 or RS-411/V.11 ports.

The Eclipse INUe is equipped with two separate traffic control planes. The data packet plane (DPP) is used for transport of Gigabit Ethernet traffic, and the High-speed Backplane BUS can be used to transport TDM traffic and/or Ethernet/IP traffic.

Part 3 – PROPOSED OEM EQUIPMENT

- Each existing rack at each site will be supplied with new Trimm breaker panels (6A/6B positions) for -48VDC distribution to all racked equipment. Each panel will be equipped with the appropriate breakers for DC power distribution to the proposed Aviat equipment at each rack.
- The proposed new dual polarized antennas are Commscope HX6-6W series High Performance antennas. Each new antennas will be supplied with dual struts.
- The proposed elliptical waveguide system is the Commscope EW63 series waveguide. Each new waveguide run will be supplied with the required installation accessories and hardware. Adjustments to the quote may be required once any waveguide length change requirements are determined upon completion of formal site surveys.
- The proposed DS1 demarcation panel is the Black Box JPM5E24A 24-port CAT5e RJ45 patch panel.

1.5. MPLS Design Scope for Projects with this Feature

This proposal does not include Aviat IP/MPLS hardware or any related design engineering services.

1.6. Validity of Quote

A Quote is an invitation for an offer and a notice to Customer of these Conditions which automatically expires after one hundred and eighty (180) days from the date of Quote, (i) if Customer has not issued Aviat US a purchase order or (ii) if the Quote is not signed by Customer and returned to Aviat US within such time frame.

1.7. Period of Performance

This project Period of Performance is 20 weeks After Receipt of Order (ARO), any delays beyond Aviat's control will be addressed as a change order to Lane County, OR, this includes any changes to the design, field implementation and coordination requiring additional hours for Network Engineer, Configurations Engineer, Drafter, Transmission Engineer, Program Manager, Project Engineer, and field crews.

1.8. Specific Personnel and/or Field Crew Request

None.

Aviat will make every effort possible to utilize requested personnel. However, if schedule and resource constraints arise demanding the use of alternate personnel, Aviat will communicate such resource plans with the client in a timely manner to allow for proper negotiations.

1.9. Field Crew Mobilization

Aviat has included 1 field crew mobilization(s) for the duration of field implementation phase, additional mobilizations will be billed on a time-and-expenses basis.

1.10. Battery Storage and Charging for projects that include batteries Storage Location

If the battery is not to be installed at the time of receipt, it is recommended that it be stored indoors in a cool [77°F (25°C) or less], clean, dry location. Do not stack pallets or cell terminal damage may occur.

The storage interval from the date of battery shipment to the date of installation and initial charge should not exceed six (6) months. If extended storage is necessary, the battery should be charged at regular intervals until installation can be completed and float charging can be initiated. When in extended storage, it is advised to mark the battery pallets with the date of shipment and the date of every charge. If the battery is stored at 77°F (25°C) or below, the battery should be given a freshening charge within 6 months of the date of shipment and receive a freshening charge at 6-month intervals thereafter. Storage at elevated temperatures will result in accelerated rates of self-discharge. For every 18°F (10°C) temperature increase above 77°F (25°C), the time interval for the initial freshening charge and subsequent freshening charges should be halved. Thus, if a battery is stored at 95°F (35°C), the maximum storage interval between charges would be 3 months (reference Appendix B). Storage beyond these periods without proper charge can result in excessive sulphation of plates and positive grid corrosion which is detrimental to battery performance and life. Failure to charge accordingly may void the battery's warranty. Initial and freshening charge data should be saved and included with the battery historical records.

2. PLANNING AND DESIGN SERVICES AND RESPONSIBILITIES

2.1. Project Management

2.1.1. Project Management Services Provided by Aviat

Assigns an Aviat Networks Project Manager to manage the project

☒ Yes

☐ No

2.1.2. Project Management Responsibilities

Planning:		
	Develop project schedule for Aviat engineers	Yes
	Develop project schedule for Lane County, OR's supporting vendors	Customer
	Establish an action register	Aviat
	Establish a communications plan	Aviat and Customer
	Establish a change management plan	Aviat and Customer
	Establish a risk management strategy	Aviat
	Provide quality standards and procedures document	Aviat
	Establish a resource management plan for Aviat resources	Aviat
	Develop a responsibility matrix, detailing principal team members by function	Aviat
	Provide details of Lane County, OR's principal team members by function	Customer
	Provide details of Lane County, OR's single point of contact for Aviat	Customer
Execution:		
	Act as primary point of contact for Lane County, OR	Aviat
	Finalize project terms and scope with Lane County, OR	Aviat
	Chair meetings to assign tasks, evaluate progress and address issues	Aviat
	Coordinate Aviat Networks' day-to-day activities through to project signoff	Aviat
	Coordinate Lane County, OR's supporting vendors' day-to-day activities	Customer
	Monitor progress against the agreed-upon project milestones	Aviat
	Report on progress as agreed to in the communications plan	Aviat
	Manage project risk through risk identification, quantification and mitigation	Aviat
	Ensure the terms and conditions of the contract are complied with	Aviat
Closeout:		
	Manage project close-out activities	Aviat
	Sign off on close-out activities and final deliverables	Customer

2.1.3. Aviat Networks Project Management Deliverables

- | | |
|--|--|
| ☒ Project Schedule | ☒ Action Register |
| ☐ Risk Management Strategy | ☒ Communication Plan |
| ☒ Change Management Plan | ☒ Progress Reports (as required) |

Refer to **Appendix A** for further details regarding the Project Manager's role.

2.2. Microwave Network Design

Copies of equipment datasheets/user manuals	Aviat
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2.2.1. Network Design Responsibilities

Planning:		
	Microwave system requirements	Customer
	Existing traffic, IP and NMS plans	Customer
	Anticipated channel plan requirements	Customer
	Preliminary system design during or after initial proposal	Aviat
	Preliminary path calculations for selected Aviat Networks radios	Aviat
Design:		
	Final equipment list	Aviat
	Final path calculations and path profiles	Aviat
	Site specific diagram (RP's and wiring diagrams)	Aviat
	DS0 traffic plans	Customer
	DS1/DS3/OC3 traffic plans	Not Quoted
	IP traffic plans	Aviat
	NMS plan	Not Quoted
	Synchronization plan	Customer
	DC power calculations	Aviat
	Traffic cut-over plan and method of procedure	Aviat
	Field acceptance test plan	Aviat
Sign-off:		
	Lane County, OR sign-off on final network design (design freeze)	Customer

2.2.2. Aviat Networks Design Deliverables

- ☒ Equipment List
- ☒ Design Freeze Package

Refer to **Appendix B** for further details regarding the network design.

2.3. Microwave Path Design

Path reliability	99.9995	%
BER	☐ 10 ³	☒ 10 ⁶
Lane County exempt from FCC license fee	☒ Yes	☐ No

2.3.1. Path Design Services Provided by Aviat

RF interference paper study	Aviat
RF field measurements	Aviat

2.3.2. Path Design Responsibilities

Planning:		
☐	Documents relating to tower or structural analysis and drawings	Customer
☐	Documents relating to previous path surveys and frequency coordination	Customer
☐	Historical path performance details on a per link basis	Customer
☐	Path clearance objective for each path	Customer
☐	Federal registration number (FRN) and username and password	Customer
Design:		
☐	Path surveys to confirm path reliability objectives	Not Quoted
☐	Site elevation and coordinates	Customer
☐	Existing antenna mounting structure description and information (tower type)	Not Quoted
☐	Existing building description and information	Not Quoted
☐	Site plan (drawing with major landmarks for location purposes)	Customer
☐	Final path calculations and path profiles for each hop	Aviat
☐	Identify locations of possible sources of spectral reflection	Aviat
☐	Information concerning possible obstructions or obstacles	Aviat
☐	Recommend antenna size, type, and mounting height	Aviat
☐	Radio frequency coordination	Aviat
☐	Tower permit application	Customer
☐	Prepare and submit FCC license application (where applicable – Form 601)	Aviat
☐	Prepare and submit environmental impact data	Customer
☐	Provide required environmental approvals or permits	Customer
☐	File FCC construction completion notice	Aviat
Sign-off:		
☐	Approve recommended antenna size, type and mounting height	Customer
☐	Lane County, OR sign-off on final path design	Customer

2.3.3. Aviat Networks Path Design Deliverables

- ☒ Microwave Path Survey Report
- ☒ Frequency Datasheets

Refer to **Appendix C** for further details regarding the path design.

2.4. Project Engineering

2.4.1. Project Engineering Services Provided by Aviat

Floor plan for Aviat installation scope	Aviat
Traffic cutover plan	Aviat
RF cutover plan	Aviat
Field acceptance test plan	Aviat
Installation specifications	Aviat
Manage civil construction	No
Manage field installation	Aviat

2.4.2. Project Engineering Responsibilities

Planning:	
Documents relating to tower or structural analysis and drawings	Customer
Site access policies and procedures	Customer
Site access as required	Customer
Building/shelter/enclosure access as required	Customer
Design:	
Site surveys	Aviat
Existing tower description and information (tower type)	Aviat
Existing building description and information	Aviat
Site plan (drawing with major landmarks for location purposes)	Customer
Environmental data (if required)	Customer
Flooring, ceiling, racking data, and requirements to mount new hardware	Customer
All power, existing and future, with breaker assignments	Customer
Recommendation for placement of new equipment	Aviat and Customer
Identify and define antenna mounting hardware	Aviat
Identify any grounding issues and recommend improvements	Aviat
Identify demarcation types and location between new and existing equipment	Customer
Existing waveguide dehydrator information and their associated cabling	Not Applicable
All structural information regarding power generator	Customer
Recommendation for any site or shelter upgrades	Customer
Recommendation for tower upgrades	Customer
Execution:	
Coordinate day-to-day field install activities through to project signoff	Aviat
Monitor field installation progress against the agreed-upon project milestones	Aviat
Report on field installation progress as agreed to in the communications plan	Aviat
Ensure proper site readiness prior to the install start date	Customer
Coordinate Aviat change orders until project completion	Aviat
Coordinate system acceptance and project completion	Aviat
Coordinate finalization of project close-out drawings and documents	Aviat
Review quality checklists and photos for defects	Aviat

2.4.3. Aviat Networks Project Engineering Deliverables

- ☒ Microwave Site Survey Report
- ☒ Traffic Cutover Plan
- ☒ RF Cutover Plan
- ☒ Field Acceptance Test Plan
- ☒ Installation Specification
- ☒ Project Closeout Package

Refer to **Appendix D** for further details regarding Project Engineering.

3. Installation, Integration & Testing

3.1. Installation Services

Tower installation	Customer
Antenna system installation	Aviat
Transmission line installation	Aviat
Shelter installation	Customer
Indoor equipment and rack installation	Aviat
AC power equipment	Customer
DC power equipment	Not Quoted
Ground installation	Customer
Antenna alignment	Aviat

3.2. Integration Services

Microwave equipment integration	Aviat
Dehydrator integration	Not Quoted
NMS integration	Not Quoted

3.3. Testing Services

Station test	Aviat
Hop test	Aviat
System test	Aviat
Traffic cutover	Aviat
RF cutover	Aviat

3.4. Installation, Integration, & Testing Responsibilities

General project responsibilities:		
	Obtain all necessary environmental and public agency approvals/documentation	Customer
	Obtain all necessary construction permits and documentation	Customer
	Access to sites in accordance with the project schedule	Customer
	Normal road access for all project related vehicles	Customer
	Transport of Aviat Networks supplied equipment to Customer warehouse	Aviat
	Transport of Aviat Networks supplied equipment to sites	Aviat
	Transport of Aviat Networks personnel to and from sites	Aviat
	Safety and first aid material and supplies to Aviat Networks personnel	Aviat

Site & civil services:		
	Leasing, zoning, permits and inspections	Customer
	Soil analysis or provide report	Customer
	Foundation design for tower/shelter	Customer
	Site construction (demolition, grading, erosion control, drainage, etc.)	Customer
	Civil documentation for existing shelters and towers	Customer
	Structural design package required to support proposed antenna system	Customer
	Structural analysis report for the existing and new antenna system	Customer
	Site layout drawings, plot plans or applicable architectural blueprints	Customer
	Locate and mark all site boundaries and features	Customer
	Secure storage for all equipment including radios, antennas and racks	Customer
	Standard equipment packaging	Aviat
	Unpack Aviat Networks equipment and remove packing material from site	Aviat
	Verify packing list to specifications	Aviat
Installation services:		
	Tower installation:	
	Antenna system support structures: towers, monopoles and tripods	Customer
	Ground resistivity measurements and report of newly installed ground system	Customer
	Install tower foundation	Customer
	Tower painting	Customer
	Provide and install tower lights	Customer
	Provide and install safety climb and safety climb ladder	Customer
	Provide and install lightning rod	Customer
	Provide and install platform	Customer
	Provide and install footing hardware and penetrations for structure on rooftops	Customer
	Adequate earth ground in accordance with EIA/TIE standard 222G	Customer
	Connect tower ground to site ground, in accordance with EIA/TIA standard 222G	Customer
	Provide and install standard tower leg pipe mounts	Aviat
	Provide and paint antennas to match structure or specific color	Not Quoted
	Provide and paint lines to match structure or specific color	Not Quoted
	Provide and install tower or rooftop pole mounts	Customer
	Provide and install any required steel support members for side braces	Aviat
	Provide and install specialized antenna mounts	Not Quoted
	Provide and install standard face mounts	Not Quoted
	All RF/microwave antenna mounting brackets	Aviat
	Antenna feeder window/bridge and cable tray supports	Customer
	Antennas and radomes at specified centerlines	Aviat
	Ice shields at specified locations	Not Quoted
	Cranes, man lifts, snowmobiles, ATV's, or special hoisting equipment	TBD after Surveys
	Transmission line installation:	
	Waveguide ladders	Customer
	Waveguide bridges	Customer
	Rooftop sleepers for transmission lines and ground plates	Customer
	Provide and install cable trays	Customer

	Provide and install transmission lines	Aviat
	Provide and install hanger kits and ground kits	Aviat
	Penetrate building walls or roof and install waveguide ports and entry plates	Customer
	Provide and install waveguide or coax boots at entry plates	Aviat
	Provide and install lightning protector at entry points	Aviat
	Provide and install conduit	Customer
	Terminate and label waveguide or coax runs	Aviat
	Shelter installation:	
	Provide shelters, cabinets or enclosures	Customer
	Provide and install shelter foundation	Customer
	Shelter installation	Customer
	Indoor equipment and rack installation:	
	Provide and install cable ladders or trays	Customer
	Provide and install new racks in specified locations	Aviat
	Provide and install bracing supports	Aviat
	Provide and install pressurization equipment	Not Quoted
	AC/DC power equipment and/or ground installation:	
	Perform electrical (underground conduits, trenching, AC power source, etc.)	Customer
	Provide and install ground ring	Customer
	Provide and install generator and fuel tank	Customer
	Provide and install AC circuit breakers to support Aviat Networks equipment	Customer
	Provide and install AC feeds from AC distribution to charger or UPS equipment	Customer
	Provide and install DC circuit breakers to support Aviat Networks equipment	Aviat
	Provide and install charger racks	Not Quoted
	Provide and install battery into charger rack or on floor as required	Not Quoted
	Field integration services	
	Integrate Aviat Networks microwave equipment	Aviat
	Integrate rack ground to ground distribution in shelter	Aviat
	Integrate DC wiring to specified distribution panels	Aviat
	Integrate payload wiring to designated demarcation	Aviat
	Integrate Ethernet wiring to designated demarcation	Aviat
	Integrate alarm contacts to designated demarcation	Aviat
	Integrate battery wiring to designated chargers	Not Quoted
	Connect radio antenna ports to waveguide flex sections	Aviat
	Set dehydrator pressure to 4psi	Not Quoted
	Install and integrate NMS software into Customer's radio network	Not Quoted
	Customize NMS alarm designations	Not Quoted
	Testing services:	
	Review and approve Aviat field acceptance test plan	Customer
	Station test:	
	Perform grounding inspection	Customer
	Perform equipment inspection	Customer
	Hop test:	

	Perform antenna system test	Aviat
	Measure return loss and distance-to-fault of waveguide terminated at antenna within antenna frequency range	Aviat
	Verify airtightness, by turning pressurization valve off for 4 hours and measuring pressure drop on each line (<0.5 PSI)	Not Quoted
	Perform DC power system test	Not Quoted
	Measure charger floating/equalization voltages	Not Quoted
	Measure voltages on each battery cell	Not Quoted
	Verify charger/battery switching	Not Quoted
	Perform microwave equipment test	Aviat
	Perform transmit power output test	Aviat
	Perform receive signal level test	Aviat
	Perform receiver threshold (fade margin) test	Aviat
	Perform transmitter/receiver switching test	Aviat
	Perform Layer 1 link aggregation test	Not Quoted
	Perform Layer 2 link aggregation test	Not Quoted
	Perform adaptive modulation test	Not Quoted
	Perform Ethernet test	Aviat
	Perform AUX alarm/data card test	Aviat
	Perform channel bank test	Customer
	Verify VF continuity/level at 1KHz	Customer
	Verify operation of E/M signaling	Customer
	Perform multiplexer test	Not Quoted
	Perform IP phone test	Not Quoted
	Perform dehydrator test	Not Quoted
	Perform 1-hour BER test on primary radio and 1-hour BER test on standby radio	Aviat
System test:		
	Perform ring wrapping or Ethernet Ring Protection (ERP) tests	Not Applicable
	Perform IP phone test	Not Quoted
	Perform network continuity test	Aviat
	Perform provision element manager test	Not Quoted
	Perform 12-hour BER test on primary side	Aviat
	Perform 12-hour BER test on standby side	Aviat
Traffic/RF cutover:		
	Provide technical personnel familiar with existing equipment and cutover plan	Customer
	Schedule cutover of all complete traffic immediately following installation	Aviat and Customer
	Transfer circuit wiring	Aviat
	Verify integrity of circuits being cutover	Customer
	Perform RF cutover	Aviat
	Perform traffic cutover	Aviat
Final site acceptance procedure:		
	Notify all parties involved of site completion	Aviat
	Perform site installation inspection	Customer
	Complete indoor quality checklist	Aviat
	Complete tower quality checklist	Aviat

	Submit final punch list of all deficiencies to be corrected to Aviat	Customer
	Identify all critical punch list items	Customer
	Review, agree and sign off on final punch list	Aviat and Customer
	Sign off on Aviat Networks site installation checklist form	Customer
Final system acceptance procedure		
	Sign off on Aviat Networks field acceptance test results	Customer
	Resolution of Customer vendor issues affecting completion or project	Customer
	Sign off on Aviat Networks installation completion report	Customer
	Sign off on project acceptance based on acceptance criteria of project	Customer
	Issue final invoice for services upon acceptance of the system	Aviat
	Provide as-built drawings for Aviat provided equipment	Aviat

3.5. *Aviat Networks Installation, Integration, & Testing Deliverables*

- ☒ Site Installation Completion Report
- ☒ Quality Checklists
- ☒ System Installation Completion Report
- ☒ Field Acceptance Test Report (completed)
- ☒ Punch List Completion Report
- ☒ As-built Record Sets

Refer to **Appendix F** for further details regarding the installation, integration, and testing services.

4. Equipment Decommission

4.1. *Decommission Services*

Tower	Not Quoted
Antenna system	Aviat
Transmission line	Aviat
Pipe mount	Aviat
Radio rack	Aviat
DC charger rack	Not Quoted
Battery	Not Quoted
Leave decommissioned equipment at the site	Not Quoted
Transport decommissioned equipment to customer warehouse	Aviat
Dispose decommissioned equipment	Not Quoted

5. APPENDIX A: PROJECT MANAGEMENT

Responsibilities

Aviat Networks will assign an Aviat representative to be the primary point of contact for this SOW ("Project Manager") for the duration of the project. The Project Manager will work with Lane County, OR to facilitate effective resource management, escalations, approval processes, scheduling, communication, and reporting with Aviat engineers and other designated vendors as needed. The Project Manager is responsible for maintaining control of the project and assuring compliance with the project and Customer specifications. Aviat Networks will not be responsible for the resolution of Lane County, OR vendor issues affecting the completion of the project. Any documentation and standards not listed in this SOW will default to Aviat Networks standards, where applicable.

Although face-to-face communication and on-site meetings with Lane County, OR are essential elements of the service, some activities that do not require face-to-face contact will be performed in the Project Manager's Aviat Networks office in order to reduce travel and living costs. These activities are at the discretion of the Project Manager. Refer to section 2.1.2 for a full list of Project Management responsibilities.

Project Schedule

The project schedule for Aviat engineers, Aviat sub-contractors, and for Lane County, OR's supporting vendors will be developed (or updated if a schedule is included with this proposal) and maintained in Microsoft Project and will identify project deliverables, key milestones, resource assignments, and track project progress against each milestone. Lane County, OR and Aviat Networks agree to collaboratively review and agree to the project milestones and deliverable dates prior to the execution of any services on the project. A copy of the project schedule will be available upon request in .pdf or .mpp format.

It will be the responsibility of Lane County, OR to track and deliver against all Lane County, OR internal (including Lane County, OR sub-contractors) milestones. The overall project plan generated by the Aviat Networks Project Manager will show major deliverable milestones, but not internal milestones of Lane County, OR or their contractors. Tracking of Lane County, OR and Lane County, OR's contractor internal milestones will remain the responsibility of the Lane County, OR.

Communications Plan

Establishment of a communications plan will be done in accordance with the principles of project management established by the Project Management Institute (PMI®) unless otherwise agreed to. The plan will involve representatives from Aviat Networks and Lane County, OR and any other entities as mutually agreed between the parties for project kickoff meetings, periodic progress meetings, or problem escalations as needed. The plan will include the location and frequency of any such meetings, the format for formal communication and meeting minutes, attendee or distribution lists with contact details, methods of communication, and escalation and management level lists.

Lane County, OR will make appropriate staff available for regular consultation and meetings with the Aviat Networks Project Manager. Customer's failure to attend regular meetings or respond to Aviat Networks questions in a timely manner could result in a delay of the project deliverables and a billable change order.

Change Management Plan

Establishment of a change management plan will be done in accordance with the principles of project management established by the Project Management Institute (PMI®) and will include confirmation from Aviat Networks and Lane County, OR's understanding of the process. Each party will work closely with the other to manage any scope changes through the term of the project and understand their impact on the project performance from a cost, quality, and schedule perspective. Any such change may be subject to a change order fee and will be communicated to Lane County, OR prior to the implementation of the change. Any change order approvals will be submitted in writing. Refer to section 1.2 and Appendix B for more details on change orders.

Quality Standards and Procedures

Quality standards and procedures documents will be provided by Lane County, OR prior to execution of this SOW. If no documentation is provided by Lane County, OR prior to execution of this SOW, the standards and procedures will default to Aviat Networks best practices guide.

Resource Management Plan

Establishment of a resource management plan will be done in accordance with the principles of project management established by the Project Management Institute (PMI®), identifying principle team members by function, including backup resources (if required).

Closeout Activities

During the project closeout, all quality photos will be reviewed, completion documents will be signed with no exceptions, RMA completed, and final billing and invoicing released. It is recommended that Lane County, OR provide Aviat Networks with performance feedback during this time to promote continuous improvement within Aviat Networks.

Lane County, OR Responsibilities

Lane County, OR shall:

- Provide details of Lane County, OR's principle team members by function during the project kickoff meeting.

- Provide details of Lane County, OR's single point of contact for Aviat during the project kickoff meeting.
- Provide all other relevant documentation or resources to assist in gathering information not stated in this SOW.
- Provide access to sites, shelters, buildings, enclosures, facilities or any other areas as required.
- Provide updates as necessary of any site readiness issues to be resolved prior to start of work. This includes, and is not limited to, permitting, leasing, zoning, insurance, etc.
- Provide security clearances and/or escorts as required for field survey and installation activities.
- Provide access to pertinent databases, planning requirements, including strategic plans, expansion scenarios, growth projections, introduction of new services and wireless technology.

Deliverables

Refer to section 2.1.3 for a full list of Aviat Networks project management deliverables.

6. APPENDIX B: NETWORK ENGINEERING

Microwave System and Network Design

The Aviat Networks representative who oversees the network ("Network Engineer") will provide the overall technical direction of the system design and will work with Lane County, OR to insure system integrity, verify that all sub-systems and Aviat Networks furnished OEM equipment is compatible, and that the desired performance of the system is realized.

The network design portion of the project consists of three phases:

1. Preliminary design
2. Final design
3. Design freeze

Preliminary Design Phase

During the preliminary design phase, the Network Engineer will gather data to establish the design criteria and any special Customer requirements that need to be incorporated into the final design. The Network Engineer will review and translate the system configuration into specific hardware requirements. Equipment selection will be based on the requirements, input and requests from Lane County, OR, functionality of the equipment, and recommendations from the Network Engineer. Aviat Networks will provide Lane County, OR with a summary of the preliminary system design prior to commencing field surveys. All preliminary designs are subject to change. Changes can include, but are not limited to changes based on:

- Survey results.
- Vendor shortages or long lead times.
- Customer requests.
- Engineering recommendations.

Design Finalization Phase

After receipt of the order and the project kickoff meeting, Aviat Networks and Lane County, OR enter into the design finalization phase. During this phase, the Network Engineer will incorporate any required changes stemming from the path and/or site surveys into the design and confirm the final design details. Changes can include but not limited to:

- Antennas (types, sizes, models, quantities, and mounts).
- Waveguide (types and lengths), waveguide accessories and dehydrators.
- Power systems, cabling, and other material that could not be finalized prior to conducting the field surveys.

During this phase, Lane County, OR may also request changes to the system design if the changes fall within the original scope and hours of the projects. Any changes outside of the original scope or agreed schedule are subject to review and acceptance by Aviat Networks to determine the impact and cost on the overall project.

Aviat Networks will provide a formal submission detailing the final system design and equipment list and highlight changes needed to the preliminary design. Lane County, OR shall review the data and schedule a meeting, if necessary, to discuss any concerns. If no concerns are noted, it is Lane County, OR's responsibility to approve the final design in writing (email is acceptable) before the design is frozen and equipment is placed on order (unless otherwise agreed to in this SOW or with the Project Manager). Any delay in the approval of the final design could result in a delay in material delivery to the field. This might require a review by Lane County, OR and Aviat Networks of the project schedule and deadlines.

Design Freeze Phase

As part of the Design Finalization Phase, a date will be set for the design freeze at which the final design and all changes must be approved and accepted by both parties. Following the design freeze, the Bill of Materials and documentation will be submitted to Aviat's factory and the system will be scheduled for manufacturing. The Network Engineer will concurrently review all design documents and finalize any traffic plans, NMS plans, synchronization plans, traffic cutover requirements, as well as any special factory and field acceptance testing requirements for the project. During the Design Freeze Phase, the design is frozen and no further changes to the system design will be accepted without a formal change order and reevaluation of the project and delivery schedules. Refer to the project schedule for details on the planned start and finish dates for each of these phases.

Deliverables

Refer to section 2.2.3 for a full list of Aviat Networks design deliverables.

- The equipment list refers to the final bill of material ("BOM").
- The design freeze package refers to the final path calculations, path profiles, rack profile and system drawings, traffic plans, IP plans, NMS plans, synchronization plans, and/or DC power calculations.

7. APPENDIX C: TRANSMISSION ENGINEERING

Microwave Path Design

The Aviat Networks representative who oversees transmission ("Transmission Engineer") ensures the delivery of the best possible network solution by providing the technical direction for the over-the-path RF performance of Aviat Networks system implementation. All microwave paths designs are preliminary, pending final path surveys and frequency coordination. This includes:

- Antenna selections, antenna centerlines, and antenna mounts.
- Total transmission line lengths.
- Path calculations and profiles.
- The size, type, quantity and configuration of each component.

Equipment proposals are simply a reflection of these preliminary designs and subject to change. It is further understood that any changes to existing or proposed antenna centerlines could justify the need for tower stress analysis or, if modification is impractical, construction of a new tower. Any such requirements will be the responsibility of Lane County, OR unless otherwise stated in the Agreement.

In the event that Lane County, OR elects not to use Aviat Networks to perform path surveys, the performance of the microwave system will not be guaranteed by Aviat Networks and it will be up to Lane County, OR to resolve any path reliability or obstruction issues. Refer to the [Warranty of Path Engineering Services](#) section below for further detail.

In the event that Customer selects Aviat Networks to perform the path surveys, a formal submission detailing the results of the path survey and highlight changes needed to the preliminary design will be submitted to Lane County, OR. It is expected that Lane County, OR review the path survey data and schedule a meeting, if necessary, to discuss any concerns or alternate means of providing path continuity/system reliability. If no feedback is received from Lane County, OR before the final system design approval, Aviat Networks will assume Lane County, OR's acceptance of the survey data, and will immediately proceed with frequency coordination (if applicable).

Microwave Path Survey, Frequency Planning and Licensing

The microwave path survey shall include the following services:

- Identify geographical location of sites and antenna, waveguide length and tower requirements.
- Verify path clearance objectives for each of the paths from existing or new tower locations.
- Document obstruction, critical points, and reflection points in each of the paths.
- Verify tower coordinates and site elevations.
- Establish coordinates and height requirements for new towers, as needed for governmental agency registration and licenses filed by Lane County, OR.
- Confirm antenna centerlines and waveguide length requirements. Catalog antennas on the existing structures noting any space limitations in the survey report. An Aviat engineer will review the tower for new antenna design space limitations specific to this project only but will not perform a complete tower audit.
- Perform frequency coordination based on available FCC records to reduce the potential for interference between internal or external radio sources on a given system or network.
- Aviat Networks, upon receipt of Lane County, OR's authorization, will prepare the FCC License Application Form 601 with the appropriate technical data. Information such as site location, radio type, and frequency will be listed. Aviat Networks will complete and submit the Construction Complete Form 601 on line via FCC Universal Licensing System ("ULS").
- File Antenna Structure Registration ("ASR") form for towers over 200 feet.

The results of the survey will be utilized by Aviat Networks for preparation of final performance calculations, frequency coordination, government licensing, and tower registration requirements. In the event where Aviat Networks will not be performing the path survey, Lane County, OR shall provide all the documents needed for Aviat Networks to complete the frequency coordination, licensing, and final system design. Aviat Networks will not be held accountable for validating the accuracy of the information provided by Lane County, OR and assumes no responsibility in any inaccuracies of any part of the path engineering based on the information provided by Lane County, OR or any contact affiliated with Lane County, OR. Any corrective action required as a result of this will be billed to Lane County, OR as a billable change order.

Survey Procedures

Preliminary path profiles are drawn based on the supplied site coordinates and contour information extracted from the best available topographic mapping. A field site survey is conducted to verify site coordinates and elevations based on North American Datum 1983

("NAD83") and gather information related to the proposed radio equipment and antenna locations, site access, and site development constraints. A field path survey is then conducted to verify path profile elevations, measure all natural and manmade potential obstructions and assess the reflective potential of all natural and manmade surfaces. Antenna centerline heights were calculated for the proposed frequency band by applying suitable clearance criteria based on the propagation characteristics of the geographic area. The path survey report is considered to be a representation of the information gathered in the field and as such, reflects a snap-shot in time at the time of the survey. It is not intended to show the final as-built configuration if any of the parameters were changed or updated after the survey report has been released.

Path calculation sheets are then generated for each hop, based upon the recommended centerline heights. Antenna sizes and the choice of propagation protection diversity are chosen to meet the required fade margin and the desired path propagation reliability. Propagation outage and reliability calculations are based on the Vigants model (ref. "Space Diversity Engineering", BSTJ, 1/75).

Design Criteria

Path clearance criteria must be established for each path on the basis of total system performance objectives, economic considerations, and careful analysis of local atmospheric conditions derived from published climatological data, where available, and reported microwave transmission experience pertinent to the area. Antenna heights much greater than actually needed cause an unwarranted increase in system cost, and on paths with significant ground reflections, this can increase the exposure to multipath and ground reflection signal fading. It is desirable to locate the antennas high enough so that even under severe super-standard atmospheric refractive conditions (surface ducting) there is adequate clearance such that signal entrapment does not significantly degrade the fade margin of the path or generate excessive multipath fade activity. The choice of clearance criteria for a microwave path is a balance between cost and performance.

The path clearance criterion as applied to a given geographic area is a function of the degree and direction of atmospheric beam bending and can conveniently be defined by the equivalent earth radius K factor:

$$K = \frac{\text{Effective Earth's Radius}}{\text{Actual Earth's Radius}}$$

The median propagation value of $K = 4/3$ allows the normal microwave horizon to be slightly extended when compared to the optical horizon; however, under certain meteorological conditions (for example, during nighttime super-refractivity usually associated with temperature inversions) the value of K increases to 2 or greater for periods of several minutes to several hours. This increases the path clearance and results in the heavy multipath fade activity seen on some reflective paths and antenna decoupling power fading on others.

Clearance Criteria

The criteria used to design a radio path in regions where the C-factor is equal to or less than 1:

- Main to Main:
 - 100% first Fresnel zone radius over $K=4/3$, or
 - 60% first Fresnel zone radius over $K=1$, whichever is greater
- Main to Diversity:
 - 60% first Fresnel zone radius over $K=4/3$ (Not Applicable)

The criteria used to design a radio path in regions where the C-factor is greater than 1:

- Main to Main:
 - 100% first Fresnel zone radius over $K=4/3$, or
 - 30% first Fresnel zone radius over $K=2/3$, whichever is greater
- Main to Diversity:
 - 60% first Fresnel zone radius over $K=4/3$ (Not Applicable)

Microwave path performance calculations and warranties

The microwave path design models most frequently employed within the industry (e.g., Vigants, and ITU-R P-530) provide a reasonably accurate (and therefore usually guaranteed) estimate of the cumulative time a path will be out of service due to random atmospheric multipath fading under normal atmospheric conditions. **These models do not (and cannot) accommodate abnormal, unusual, anomalous, or otherwise unpredictable conditions of weather or atmospheric refractivity.**

Microwave frequency engineering/inter-system interference analysis

Aviat Networks will partner with Comsearch, a CommScope company, to provide cost-effective frequency planning and FCC licensing services for radio communications systems (if required). The planning software used, considers specific operating parameters of both the proposed microwave system and the environment microwave systems (license and proposed) to properly consider the interference potential of the new path or system. Parameters and data elements incorporated into the modeling include, but are not limited to:

- Antenna type, antenna height, elevation, antenna radiation pattern
- Receiver filter performance
- Terrain
- Radio modulation

- Path orientation
- Receiver threshold

These elements are required to accurately predict specific interfering levels into and from the existing microwave systems. The accuracy of the calculations is ensured by real-time maintenance of the Comsearch point-to-point microwave, earth station, radio equipment, antenna, interference objective, and contact database.

Microwave frequency selection

The interference analysis performed on the microwave system identifies available frequencies considering existing and proposed systems found in the Comsearch database. When applicable, an analysis of the systems in the adjacent bands can be done to ensure the microwave system does not receive unwanted threshold degradation. In bands shared with satellite systems, an analysis of potential interference with earth stations and with the geo-stationary satellite orbit can also be done. Additionally, co-located or nearby transmitters already licensed in the required frequency band can be identified in order to reduce the possibility of “bucking” an existing high/low frequency plan that could increase the possibility of receiver overload or reflective interference from a nearby system.

Microwave frequency coordination and FCC licensing

The majority of microwave bands subject to FCC Rule Part 101 require prior coordination with existing licensees. Aviat Networks will partner with Comsearch to perform the frequency coordination and FCC licensing on behalf of the Customer (if required). The procedure will include notification of the technical parameters of the proposed system to all existing and proposed licensees in the area and frequency band of operation. Frequency coordination will also be performed with Canadian and Mexican authorities in border areas when necessary. By FCC rule, recipients are given 30 days to respond, or in some cases an expedited response can be requested.

Upon completion of the prior coordination process, documentation required to satisfy FCC Rule Part 101.103 (d) can be prepared on behalf of the Customer. This will include any necessary exhibits, including supplemental showings required upon submittal of the requested license application. The FCC filing process includes:

- Filing of the FCC Form 601 microwave application upon written approval from Customer and providing an electronic copy of the application to Customer via email.
- Tracking the status of the application until the license is granted by the FCC. Amendments will be handled expeditiously on behalf of Customer for any questions or concerns from the FCC.
- Email notifications to the licensee when the license is granted by the FCC.
- Filing of the required completion of construction notification with the FCC upon written approval from the licensee and notification of the filing via email.

Special Considerations

On all microwave radio paths traversing urban areas there exists the possibility of multiple on- and off-path structural reflections which generate long-delayed echoes, as well as terrain scatter RF intra- and inter-system interference. Long delayed, low-level echoes have no effect on digital radio performance; however, the terrain scatter mechanism cannot be accurately predicted nor precisely measured without an extensive and expensive field trial. Consequently, this mechanism is specifically excluded from all current industry-wide path survey and frequency coordination performance guarantees.

The structure supporting the microwave antenna can take many forms. The antenna is most often mounted on a tower but can be mounted on a variety of structures such as roof tripods, penthouse wall, wooden telephone pole, or metal monopole. It is recommended that Customer conduct a structural analysis of the support structure to determine if the structure will support the additional loading imposed by the antenna and its mount. The structure must also meet the twist and sway requirements per EIA/ANSI 222G.

Site Access

Access to work sites will be made available by Lane County, OR for a minimum of 10 hours per day, 5 days per week or per the agreed schedule in the project plan. All roads leading to work sites shall not require more than a 4-wheel drive vehicle unless stated otherwise and agreed to by both Lane County, OR and Aviat Networks. Any delays or additional cost caused by poor road conditions or site access issues not discussed prior to the start of the surveys will be billed to Lane County, OR as a billable change order and could have a negative impact on the project completion schedule.

FCC Rules for Filing Accuracy

CFR 47, Part 1.929 specifies that filing accuracy for site coordinates shall be (+/-) 1” latitude and longitude, and for ground elevation (+/-) 1 meter (3.28 ft.). Part 1.929(k) (covering modification of FCC licenses) specifies that any change in site coordinates >5” latitude or longitude shall require prior authorization and re-coordination. Therefore, wherever our survey results deviate more than (+/-) 5” latitude or longitude, or more than +3.28 ft. site elevation, frequency re-coordination will be recommended.

Terms and Conditions

When Aviat Networks performs reliability calculations or path studies (path profiles from mapping or digitized data only) based solely on information supplied by or on behalf of the Customer, these calculations and studies are provided solely for budgetary purposes and shall not be construed as or be used for an installable design.

When conducting a path survey, Aviat Networks will verify site coordinates and ground elevations, and record trees and man-made fixed obstructions on the path. This information will be recorded on the profile for that particular path. Aviat Networks will assign an appropriate growth factor to tree heights.

When Aviat Networks performs frequency planning based, in part or its totality, on data provided by the Customer at the time of the study, Aviat Networks will not be responsible for any interference case that might arise due to errors or omissions in such data. As the usage of microwave bands increase and there is more sharing with satellite services, it may be necessary to perform frequency interference studies and additional path surveys (to determine blockage) to alleviate the possibility of interference from satellite earth stations.

Warranty of Path Engineering Services

Aviat Networks warrants that the installed radio communication path will conform to Customer's multipath performance reliability objectives when Aviat Networks has performed the path survey, recommended the path design, and implemented such recommendations. This warranty is for a period of fifteen (15) months from the date of the survey or one (1) year from the date of installation of the microwave path, whichever expires first. All Aviat Networks field activities and path propagation analysis will utilize current hardware, software, engineering practices and judgment with the goal of meeting normal Path Loss, as defined in TIA/EIA Standard RS-252-A.

Aviat Networks is not responsible for paths that it does not survey, nor for changes in path design beyond those specifically allowed in the path survey report or in writing after the field survey is completed, including but not limited to:

- Any change in path design;
- Any movement in site locations;
- Any building or other structure built on-path after date of survey;
- Any disturbance of the terrain which may cause blockage or reflection;
- Any additional frequency interference source;
- Any change of available antenna mounting space on tower.

Any one of these changes listed will nullify the warranty, and the Customer shall in such case bear the total cost of determining that such change was the cause.

Aviat Networks will not be responsible for degraded path performance when such degradation is due to such anomalous propagation conditions as:

- Long-term loss of fade margin due to antenna decoupling misalignment caused by widely-varying k-factor changes;
- Long-term loss of fade margin due to atmospheric boundary layering ("ABL") causing wave front defocusing (beam spreading), signal entrapment (blackout fading), ducting, and other such occurrence.
- Excessive rain outage rates beyond the published crane and/or chart data used in the calculation;
- Degradation resulting from certain types of multipath interference attributed to unidentifiable off-path terrain features or structures;
- Any other technological or atmospheric condition not foreseeable through the exercise of prudent engineering knowledge and judgment.

Additionally, Aviat Networks will not be responsible for degraded path performance when:

- Non-Aviat Networks radio equipment is installed on a surveyed path;
- Aviat Networks radio equipment is not installed by Aviat Networks;
- Existing antenna and waveguide system is used without test and inspection performed by Aviat Networks.

Aviat Networks designs the microwave path based upon engineering practices and standards common to the industry. When path loss or reliability objectives are not achieved, Customer's sole remedy, and Aviat Networks' exclusive liability in connection with path engineering, shall be that Aviat Networks will provide incremental labor and material to optimize the antenna system to meet the requirements created during initial installation.

Where anomalous propagation is suspected in an installed microwave path, Aviat Networks will work with the Customer to obtain reasonable evidence that such condition exists. The total retroactive costs for such study shall be the responsibility of the Customer, and Aviat Networks will provide in-office engineering support at Customer's expense. The cost of relocating towers, antennas, passive reflectors, or other measures required to remedy this type of problem shall solely be the responsibility of the Customer.

Deliverables

Refer to section 2.3.3 for a full list of Aviat Networks path design deliverables.

Limitations

THE LIMITED WARRANTY CONTAINED IN THIS SOW CONSTITUTES AVIAT NETWORKS' SOLE AND EXCLUSIVE LIABILITY HEREUNDER AND CUSTOMER'S SOLE AND EXCLUSIVE REMEDY FOR DEFECTIVE OR NON-CONFORMING EQUIPMENT, SERVICES, AND SOFTWARE MEDIA OR LICENSED PROGRAMS. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES (EXCEPT AS TO TITLE), WHETHER ORAL, WRITTEN, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, ANY IMPLIED WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OR CONDITION ARISING OUT OF COURSE OF DEALING, COURSE OF PERFORMANCE, OR CUSTOM OR USAGE OF TRADE. CUSTOMER AGREES THAT NO CIRCUMSTANCE CAUSING CUSTOMER'S EXCLUSIVE AND LIMITED REMEDIES TO FAIL IN THEIR ESSENTIAL PURPOSE SHALL INCREASE OR EXTEND ANY AVIAT NETWORKS WARRANTY. THE TOTAL LIABILITY OF AVIAT NETWORKS AND ITS LICENSORS UNDER THIS WARRANTY SHALL IN ANY EVENT BE SUBJECT TO THE LIMITATIONS IN THIS SOW.

ANY WARRANTY CLAIM NOT SENT TO AVIAT NETWORKS IN WRITING DURING THE APPLICABLE WARRANTY PERIOD IS WAIVED BY CUSTOMER. REPLACEMENT EQUIPMENT, SERVICES, SOFTWARE MEDIA AND LICENSED AVIAT NETWORKS PROGRAMS ARE WARRANTED ONLY FOR THE BALANCE OF THE UNEXPIRED PORTION OF THE ORIGINAL WARRANTY PERIOD, IF ANY.

CUSTOMER IS EXPRESSLY NOTIFIED THAT UNDER NO CIRCUMSTANCES SHALL AVIAT NETWORKS BE LIABLE FOR (A) ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES OF ANY PARTY, INCLUDING THIRD PARTIES, EVEN IF SUCH DAMAGES ARE FORESEEABLE, OR (B) LOSS OF REVENUE, LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE, LOST SAVINGS, OR LOST OR CORRUPTED DATA, OR (C) LOSSES RESULTING FROM SYSTEM SHUTDOWN, FAILURE TO ACCURATELY TRANSFER, READ OR TRANSMIT INFORMATION, FAILURE TO UPDATE OR PROVIDE CORRECT INFORMATION, SYSTEM INCOMPATIBILITY OR PROVIDING INCORRECT COMPATIBILITY INFORMATION OR BREACHES IN SYSTEM SECURITY EVEN IF AVIAT NETWORKS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION SHALL APPLY TO ANY CLAIM OR CAUSE OF ACTION WHETHER IN CONTRACT OR TORT (INCLUDING NEGLIGENCE, STRICT LIABILITY OR BREACH OF WARRANTY).

IN NO EVENT SHALL AVIAT NETWORKS' TOTAL LIABILITY TO CUSTOMER OR ANY PARTY CLAIMING THROUGH CUSTOMER EXCEED THE LESSER OF ONE HUNDRED THOUSAND UNITED STATES DOLLARS (\$100,000.00 USD) OR THE ACTUAL SALES PRICE PAID BY CUSTOMER FOR ANY EQUIPMENT, SOFTWARE OR SERVICES SUPPLIED UNDER THIS SOW.

THIS SECTION SHALL SURVIVE THE TERM OR EXPIRATION OF THE AGREEMENT. CUSTOMER AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS AVIAT NETWORKS AGAINST ALL LOSS OR LIABILITY FROM CLAIMS BY CUSTOMER OR A THIRD PARTY ARISING OUT OF OR RELATING TO CUSTOMER'S INSTALLATION, OPERATION, OR MISUSE OF THE EQUIPMENT OR LICENSED PROGRAMS, WHETHER ON ACCOUNT OF NEGLIGENCE OR OTHERWISE.

8. APPENDIX D: PROJECT ENGINEERING

Microwave Site Design

The Aviat representative overseeing implementation ("Project Engineer") will perform field site surveys to verify that telecommunications equipment can be installed, powered and commissioned effectively at each site, antennas, waveguide and accessories can be connected to radios (towers, shelters and buildings), and Customer traffic, alarms and dehydrator lines are fully engineered.

Microwave Site Survey

The microwave site survey is intended to gather data and identify the gap(s) between the site's present state and the site readiness for equipment installation, document any visible issue with the existing infrastructure and equipment that would pose a quality or safety issue during installation, gather environmental data and requirements for telecommunication equipment to function properly (including but not limited to HVAC, temperature, humidity, the general state of the facility as well as seismic evaluation and compliance if required), record flooring, ceiling, racking data and requirements to mount new equipment (including floor plans, relay rack profiles, aisle numbering plans, and ceiling hangers, ladders, and anchor materials required to meet quality and safety standards.

The survey is also intended to record AC, DC, grounding (as is and to be), and breaker assignments and ensure power and grounding standards are met, identify demarcation types and location between new and existing equipment as well as the type of termination and the details required to terminate to the Customer provided equipment, identify existing radio equipment (fixed and mobile) as well as their operating frequencies, record existing waveguide, dehydrator component and their associated cabling, identify all required or existing tower structures, mounting structures, antenna mounting types, waveguide ladder systems, entryway into telecom shelters, and energy sources.

The results of the survey will be published and released in a site survey report and will be utilized by Aviat Networks for preparation of final power calculations, waveguide requirements, field OEM requirements, installation specifications, field test plans, and traffic cutover plans. In the event where Aviat Networks will not be performing the site survey, Lane County, OR shall provide all the documents needed to Aviat Networks to complete the site engineering and final system design. Aviat Networks will not be responsible for validating the accuracy of the information provided by Lane County, OR and assumes no responsibility in any inaccuracies of any part of the site engineering and microwave site design when such design is based on the information provided by Lane County, OR or any contact affiliated with Lane County, OR. Any corrective action required as a result of this will be billed to Lane County, OR as a billable change order.

Site Access

Access to work sites will be made available by Lane County, OR for a minimum of 10 hours per day, 5 days per week or per the agreed schedule in the project plan. All roads leading to work sites shall not require more than a 4-wheel drive vehicle unless stated otherwise in this SOW and agreed to by both Lane County, OR and Aviat Networks. Any delays or additional cost caused by poor road conditions or site access issues not discussed prior to the start of the surveys will be billed to Lane County, OR as a billable change order and may have a negative impact on the project completion schedule.

Field Installation Management

Aviat Networks will manage the day-to-day activities of the field installation with support from Lane County, OR to ensure the project remains on schedule as per the agreed project schedule.

Deliverables

Refer to section 2.4.3 for a full list of Aviat Networks site design deliverables.

9. APPENDIX E: INSTALLATION, INTEGRATION & TESTING

The installation, integration, and testing services include design-supported methodologies, product expertise, and field-proven processes to help ensure a quality installation and testing of critical system paths and hardware so that the network performs according to its design. Aviat Networks will designate a primary point of contact to answer any Lane County, OR questions, provide guidance, and address issues specific to this service.

This SOW is based on an Aviat Networks standard installation schedule of 10-hour days, 5 days per week. Aviat Networks will adjust this SOW for work week schedules outside of Aviat Networks' standard. Installation work performed during maintenance windows is not included in this SOW unless specifically identified. All work will be done in accordance with Aviat Networks' best practices guide.

Scope

Delivery of this service will utilize the design documentation developed as part of the planning and design phase. Field crews will utilize this documentation to:

- Install antenna systems
- Install transmission lines
- Install indoor microwave equipment, racks and components
- Perform antenna alignment
- Perform system integration
- Perform system testing

System implementation is predicated upon completion of civil construction and complete site readiness. Antenna, waveguide and equipment installation activities will be performed at the same time on a per-site basis. As part of the delivery of this service, Aviat Networks may choose to integrate equipment at the manufacturer's location to minimize onsite installation time and provide a common point for quality assurance inspections. If staging areas are utilized as part of the project, equipment and materials will be delivered from these facilities to site by the installation crews. ***It is recommended that Lane County, OR provide maintenance technicians during any service affecting work.***

The successful completion of all installation, integration, and testing services are based on uninterrupted, contiguous-site installation and testing. Additional mobilizations are not included in the pricing and project schedule. If installation is delayed due to inclement weather, inaccessible sites(s), incomplete site preparation, or construction, the following charges may apply and will be billed to Lane County, OR as a billable change order:

- Standby time for antenna installation teams will be charged at a rate of \$1,150 per person per day.
- Standby time for radio teams will be charged at a rate of \$1,250 per person per day.
- If re-mobilization of the installation crew is necessary, then a two-week advance notice is required.
- Re-mobilization will be billed on a time-and-expenses basis.
- Service costing assumes use of 4-wheel drive vehicles for all project related vehicles. Additional requirements such as ATVs may require additional service costs.
- If the field crew(s) is required to work out of contiguous sequence due to conditions beyond the control of Aviat Networks, a charge equal to one day for each crew person will be assessed to the Customer for each occurrence.

Site Access

Access to work sites will be made available by Lane County, OR for a minimum of 10 hours per day, 5 days per week or per the agreed schedule in the project plan. All roads leading to work sites shall not require more than a 4-wheel drive vehicle unless stated otherwise in this SOW and agreed to by both Lane County, OR and Aviat Networks. Any delays or additional cost caused by poor road conditions or site access issues not discussed prior to the start of the installation, integration or testing services will be billed to Lane County, OR as a billable change order and could have a negative impact on the project completion schedule.

Site Services

All work permits, public agency approvals, leasing agreements, zoning permits or inspections required at each site, soil analysis, foundation design, civil documentation for existing shelters or towers, architectural blueprints, plot plans, structural analysis for new or existing antenna systems, location of all site boundaries and features (including locating and marking tower location, true North, property boundaries, paved areas, landscaping, fences and any other underground/overhead obstruction which could interfere with construction and access), and/or other related documentation for this project will be obtained, conducted, completed and made available to all parties involved prior to the start of any installation, integration or testing services. All other construction and installation work will be conducted in accordance with local city, county, state, and government laws and regulations.

All equipment including radios, antennas and racks will be stored by Customer in a secure location at the site or at a designated location. Lane County, OR shall be responsible for the loss of any equipment, tools, or personal belongings from any secured location provided or monitored by Lane County, OR.

Installation

Lane County, OR shall verify that each site is ready for installation and commissioning activities, including Lane County, OR supplied equipment installation and power up prior to the start of any such services and shall be responsible for any delay caused or cost incurred due to sites not being ready, as stated in the project scope of this SOW.

An inspection will be performed with Lane County, OR after completing the physical installation. Workmanship deficiencies will be noted on a punch list for immediate correction. This inspection is not intended to verify operation of the new system or suitability of components, but rather to inventory and document that all equipment and materials from the schedule of values are installed to acceptable workmanship quality standards. Site drawings will be reviewed and red-lined to reflect the installed condition.

Testing

Test crews will begin work immediately after installation is complete. Testing, based on a standard set of Aviat Network test cases, will be performed on all provided equipment to confirm configuration, operation and manufacturer's specifications. Test data will be recorded on field test sheets, by technical field personnel who will also be responsible for documenting test results and any changes made to the design documentation.

The test crews will be trained on the equipment and utilize test equipment to perform all tests. Test equipment will have valid calibration certifications, which can be verified prior to commencing any tests. It is recommended that Lane County, OR take the opportunity to have their maintenance technicians witness or participate in field commissioning testing to gain on-the-job training and experience on the new system components.

Commissioning tests will consist of a set of standard Aviat Networks test cases and include turn-up and performance verification tests and circuit tests to verify end-to-end continuity and equipment operation as well as any other tests documented in the field acceptance test plan. The field acceptance test plan shall be approved and agreed to by Aviat Networks and Lane County, OR prior to test execution. Test results will be recorded on field test data sheets and submitted to Lane County, OR. Refer to the field acceptance test document for details on the test to be performed.

System tests will be performed on a logical section/loop of the system. The system tests will be designed to demonstrate performance and functionality of system features as-well as end-to-end operation of individual circuits/services. System test results will establish benchmark system performance and operation prior to cut-over and acceptance. The test data sheets prepared during commissioning and system testing will become the base line document for maintenance and performance evaluation of the system over an extended period of time. Lane County, OR will be required to review the commissioning and acceptance testing and results and red-lined drawings and provide approval of the data and authorization to proceed with cut-over activities.

Traffic Cut-over

Cut-over activities are anticipated to occur as DC, antenna and radio sub-systems are implemented. The Commissioning and system-level test activities verify that the new system is ready to accept traffic. Preparation, planning, logistics, and technical support are the critical elements in transferring existing services to a new system. Lane County, OR infrastructure is utilized for control of mission critical infrastructure; therefore, processes must also be put in place to minimize interruptions as well as to restore the original service in the event of unforeseen situations.

Safety

The health and safety of all individuals, whether in the field, plant or office, takes precedence over all other concerns. Management's goal is to prevent accidents and to reduce personal injury and occupational illness and comply with all safety and health standards. A code of safe conduct is important to the efficiency of operations. To the greatest degree possible, Lane County, OR will provide physical safeguards required for personal safety and health in keeping with the highest standards. Aviat Networks requires a written report from Customer for all accidents and incidents, no matter how small.

Safety and first aid material and supplies will be provided to all Aviat Network construction and installation personnel or made available at each site for the duration of this project. All safety and first aid material will be stocked at acceptable levels and will have not exceeded the expiration dates where applicable. Lane County, OR will be responsible for providing Aviat Networks with the location and phone numbers of all local emergency agencies.

Deliverables

Refer to section 4.5 for a full list of Aviat Networks installation, integration, & testing deliverables.

10. APPENDIX F: ASSUMPTIONS & EXCLUSIONS

The following assumptions will govern the delivery of the project management service:

- This SOW and associated pricing is based on Lane County, OR completing all items set forth in this SOW as being Lane County, OR responsibility to ensure site readiness.
- Any inaccuracies in FCC data may drive additional services costs during field implementation. In addition, any other troubleshooting tasks related to frequency interference issues that are not directly attributable to Aviat Networks are subject to additional service fees at rates defined in this SOW.
- All equipment interconnections or termination points, unless specified otherwise, are estimated to be fifty (50) feet. This project does not include any cabling between buildings, rooms, or floors, unless specifically identified in this SOW.
- Customer provided construction drawings will have sufficient details for Aviat engineering to order antenna mounting or any other related material required. Any re-engineering to provide correct mounts or material required by Aviat Networks may increase cost to Lane County, OR.

Unless otherwise stated in this SOW, the services provided by Aviat in this SOW shall be subject to the following terms:

- Aviat shall not be responsible for managing Lane County, OR project responsibilities and deliverables.
- This SOW is a listing of roles and responsibilities to be provided by Aviat Networks. Aviat Networks shall not be responsible for the condition of existing equipment or the deficiencies of non-Aviat Networks provided labor. Only the labor addressed in this SOW shall be provided by Aviat Networks.
- On-site technicians will decline any Lane County, OR request for work outside the scope of work defined and agreed upon in this SOW unless it is addressed in a change order.
- Aviat Networks proprietary documentation used by service delivery teams to perform this service is not available to Lane County, OR.
- Aviat shall not provide proprietary information on methods, procedures, or tools to perform the services in this SOW.
- Aviat shall not perform any and services that are not specifically described within this SOW as being provided by Aviat Networks.
- Aviat Networks will not be responsible for the resolution of other vendor issues affecting the completion of the cutover. Aviat Networks can provide guidance and support to Lane County, OR in resolving interoperability issues, where applicable.
- Aviat shall not repair equipment not in the engineering drawings. Equipment requiring repair that is not included in the engineering drawings but is still under warranty must follow Aviat's repair and return procedures.
- Additions or changes to ironwork, cable racks, or fiber ducts are not included and can be quoted separately after site visit information is collected.
- AC power drop wiring within three (3) feet of DC power plants is excluded, unless specifically quoted.

11. APPENDIX G: FIELD CHANGE ORDER PROCEDURE

Any change to the proposed system configuration, the number of sites, type of equipment, type of services or project responsibilities, or any other change to this SOW will be considered as a change in scope and will be subject to the following process:

- The Customer or Aviat Networks identifies a change of project scope of work.
- Aviat Networks Project Manager or Network Engineer will submit a proposed field change order authorization or an amendment to this SOW containing documentation of the proposed additional activity and an additional cost.
- An authorized Customer representative shall review and approve the field change order authorization or the amendment to this SOW in writing prior to changes to the scope of work being started.

Aviat Networks
200 Parker Drive, Suite C100A
Austin, Texas 78728
United States
Phone: (512) 582-4600
Fax: (512) 582-4605

CHANGE ORDER FORM

Lane County, OR
Bear-Blanton-LCSO MW Upgrade
NA220307-68428

This amendment hereby modifies and amends the Statement of Work ("SOW") between Aviat, U.S., Inc. ("Aviat Networks") and Lane County, OR ("Customer") entered into on [insert SOW effective date here] as follows:

The following products **and** services are hereby **<added/deleted>** to the SOW at the specified prices. All other terms and conditions of the SOW remain unchanged.

Customer:	Lane County, OR	Contract #:	
Phone:		Contract Date:	
Fax:		Change Order #:	
Email:		Aviat SO #:	

Line #	Description	QTY +I(-)	Unit Price	Ext Price +I(-)
1				
2				
3				
4				
5				
6				
7				
8				
9				
Subtotal Booking				\$
Tax (as applicable)				\$
Freight				\$
Other				\$
TOTAL THIS CHANGE				\$

Aviat U.S., Inc.		Lane County, OR	
Approved By:		Approved By:	
Print Name:		Print Name:	
Title:		Title:	
Date:		Date:	

12. STATEMENT OF WORK SIGN-OFF

Lane County, OR
Bear-Blanton-LCSO MW Upgrade
NA220307-68428

Aviat Networks and Lane County, OR agree that this SOW will govern the scope, roles, and responsibilities associated with the delivery of this project.

The parties also agree that material changes to the project scope or deviations from the assignment of responsibilities between Aviat Networks and Lane County, OR shall require a change order or amendment to the project schedule.

Aviat U.S., Inc.		Lane County, OR	
Approved By:		Approved By:	
Print Name:		Print Name:	
Title:		Title:	
Date:		Date:	

13. PROJECT COMPLETION SIGN-OFF

Complete one page for every site.

Lane County, OR

Bear-Blanton-LCSO MW Upgrade

NA220307-68428

<Site Name>

Equipment:

The Aviat Networks supplied microwave equipment has been completely installed and tested and has been accepted for traffic use with the following exceptions:

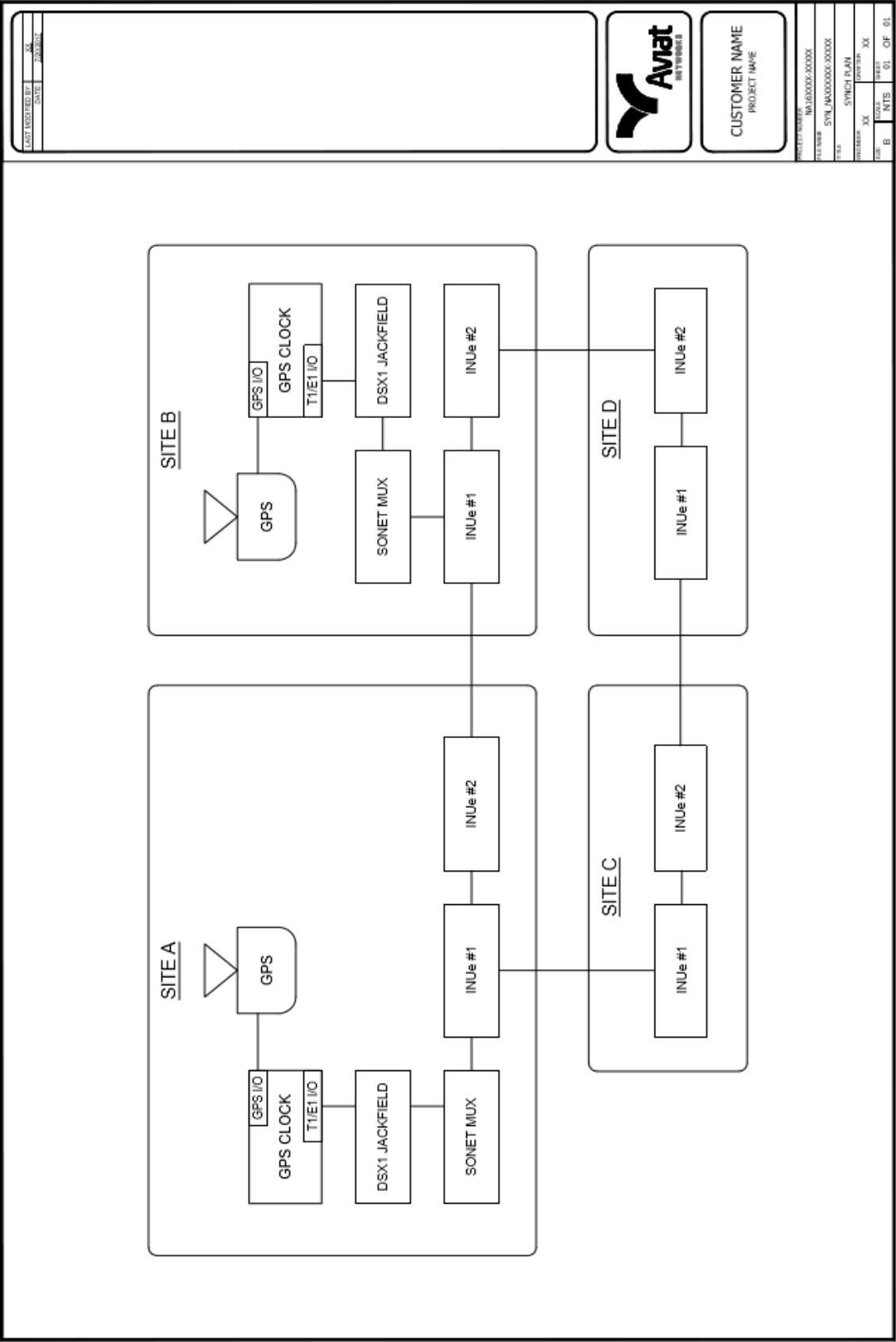
Exceptions (use additional sheets if required):

Please call Aviat's customer service hotline at 1-800-227-8332 for service, equipment repair, training or miscellaneous sales or visit Aviat's customer service website at <http://www.aviatnetworks.com>.

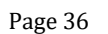
Aviat U.S., Inc.		Lane County, OR	
Approved By:		Approved By:	
Print Name:		Print Name:	
Title:		Title:	
Date:		Date:	

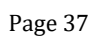
14.Aviat Standard Drawings

Synch Plan









Network Engineer: M. Del Fierro

Site Name: Princeton

Total AMPS @ 48Vdc: 3.90 A

Additional AMPS @ 48Vdc: 0.00 A

NOTE: Dehydrators operate with AC power

Hours Reserve	2	4	6	8	12	24		
Amp-Hour multiplier	2.8	4.7	6.4	8.0	10.9	19.3		
Temperature F(Deg)	0	10	20	40	60	70	77	
Correction Factor	2.0	1.85	1.59	1.3	1.11	1.04	1.0	
Battery Size (Min)	=	Station Load	X	Amp-Hour Multiplier	X	Correction Factor		
Charger Size (Min)	=	(1.15 X Battery Size / Recharge Time)	+	Station Load				

Sample IP Plan

EQUIPMENT				ACCESS & CONFIGURATION										Additional Radio			DATES			STATUS										
SITE NAME	Site Address	Vendor	Component	Tier	SSH	HTTP	HTTPS	Web Interface	Terminal Server	Default Ethernet IP Address	Default Ethernet Subnet Mask	Username (A/B/C)	Password (A/B/C)	Enable Secret (A/B/C)	Access Info (A/B/C)	System Name (A/B/C)	Read Write Privs (A/B/C)	Write Privs (A/B/C)	Peer Site Name	Peer Site IP	Peer Site Name	Display Name (A/B/C)	Radio Mfg Date	Radio Mfg Date	Provision Date	Launch Date	Element Update Date	Element Status	Current SW Version	Radio in Provision
Princeton		Aviat	Edge	NA	Yes	Yes	Yes	Yes	NA	10.0.0.1	255.255.255.240 (/28)	default	default	default	default	terminal	terminal	terminal	Turquoise	Tennessee Pass	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	N/A
Turquoise		Aviat	Edge	NA	Yes	Yes	Yes	Yes	NA	10.0.0.17	255.255.255.240 (/28)	default	default	default	default	terminal	terminal	terminal	Princeton	Tennessee Pass	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	N/A
Turquoise		Aviat	SiteBoss S550-6	NA	Yes	Yes	Yes	Yes	NA	10.0.0.18	255.255.255.240 (/28)	default	default	default	default	terminal	terminal	terminal	Turquoise	Tennessee Pass	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	N/A
Tennessee Pass		Aviat	Eclipse	NA	Yes	Yes	Yes	Yes	NA	10.0.0.33	255.255.255.240 (/28)	default	default	default	default	terminal	terminal	terminal	Turquoise	Tennessee Pass	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	N/A
Tennessee Pass		Aviat	SiteBoss S550-6	NA	Yes	Yes	Yes	Yes	NA	10.0.0.34	255.255.255.240 (/28)	default	default	default	default	terminal	terminal	terminal	Turquoise	Tennessee Pass	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	11/20/2014	N/A

EXHIBIT B – STANDARD COUNTY CONTRACT CONDITIONS

1. **INDEPENDENT CONTRACTOR STATUS.** The performance of this Contract is at Contractor's sole risk. The service or services to be rendered under this Contract are those of an independent contractor that is not an officer, employee or agent of the County as those terms are used in ORS 30.265. Contractor is solely liable for any workers' compensation coverage; social security, unemployment insurance, retirement payments, and federal or state taxes due as a result of payments under this Contract, whether due on account of Contractor or Contractor's subcontractors.
2. **INSURANCE AND INDEMNIFICATION**
 - 2.1 **Contractor's Required Insurance.** Contractor must provide and maintain all types and amounts of insurance called for on the Exhibit titled "Insurance Coverages Required" and must notify Lane County Risk Management of any material reduction or exhaustion of aggregate limits. Contractor may not commence any work until Contractor furnishes evidence of all required insurance specified by the County and has obtained the County's approval as to limits, form, and amount. Commercial General Liability and Auto Liability coverage must include an Additional Insured Endorsement naming the County and its officers, agents, and employees that includes completed operations, and which is primary and non-contributory with any other insurance and self-insurance.
 - 2.2 **Contractor to Maintain Insurance.** Contractor may not cancel, materially change, or not renew insurance coverages. If any policy is canceled before final payment by County to Contractor, Contractor must immediately procure other insurance meeting the requirements. Any insurance bearing on adequacy of performance must be maintained after completion of the Contract for the full guarantee period. If Contractor fails to maintain any required insurance, County reserves the right to procure such insurance and to charge the cost to Contractor.
 - 2.3 **Workers' Compensation.** Contractor, its subcontractors, and all employers working under this Contract are subject employers under Oregon Workers' Compensation Law, and must comply with ORS 656.017 and provide Workers' Compensation coverage for all their subject workers unless exempt under ORS 656.126.
 - 2.4 **No Limitation.** Nothing contained in these insurance requirements limits the extent of Contractor's responsibility for payment of damages resulting from Contractor's operation under this Contract.
 - 2.5 **Contractor's Indemnification.** To the fullest extent permitted by law, and to the extent otherwise provided for in private contracts of insurance, Contractor shall indemnify, defend, and hold harmless the County and its officers, agents, employees, and volunteers from all damages, losses and expenses, including but not limited to attorney fees and costs related to litigation, and to defend all claims, proceedings, lawsuits, and judgments arising out of or resulting from Contractor's performance of or failure to perform under this Contract. The provisions of the foregoing notwithstanding, Contractor will not be required to indemnify County for any liability arising solely out of wrongful acts of County.
 - 2.6 **Intellectual Property.** If the Work of this Contract includes work product or any tangible or intangible items delivered to County under the Contract that may be the subject of protection under any state or federal intellectual property law or doctrine, the Contractor's indemnification shall extend to any claim that the County's use thereof infringes any patent, copyright, trade secret, trade mark, or other proprietary right of any third party.
3. **CONTRACTOR'S OBLIGATIONS**
 - 3.1 Except as provided in the bidding or procurement documents, Contractor must meet the highest standards prevalent in the industry or business most closely involved in providing the goods or services required by this Contract.
 - 3.2 Contractor must make all provisions of the Contract applicable to any subcontractor performing work under the contract.

- 3.3 Contractor agrees that County will not be responsible for any losses or unanticipated costs suffered by Contractor as a result of the contractor's failure to obtain full information in advance in regard to all conditions pertaining to the work.
- 3.4 Contractor certifies that Contractor has all necessary licenses, permits, or certificates of registration necessary to perform the contract and further certifies that all subcontractors will likewise have all necessary licenses, permits or certificates before performing any work.
- 3.5 Contractor may not permit any lien or claim to be filed or prosecuted against the County on account of any labor or material furnished, will be responsible for satisfaction of any lien so filed or prosecuted, and must defend against, indemnify, and hold the County harmless from any such lien or claim.
- 3.6 Unless otherwise provided by the Contract or law, Contractor agrees that County and its duly authorized representatives may have access to the books, documents, papers, and records of Contractor which are directly pertinent to this Contract for the purpose of making audits, examinations, excerpts, copies and transcripts. Contractor must retain and keep accessible such books, documents, papers, and records for a minimum of 6 years after County makes final payment on the Contract. Copies of applicable records must be made available upon request, and payment of copy costs is reimbursable by County.
- 3.7 Contractor must, in the course of carrying out Contractor's Work, comply at all times with the then-current "Mandatory County Policies for Vendors" published on County's Procurement and Purchasing webpage at: www.lanecountyor.gov/bids.

4. **CONTRACTOR'S OBLIGATIONS REQUIRED BY LAW**

- 4.1 Contractor must promptly make payments for labor and material, and pay all contributions due to the Industrial Accident Fund, in accordance with ORS 279B.220 or ORS 279C.505, as applicable.
- 4.2 Contractor must promptly make payments for any costs described in ORS 279B.230 and 279C.530, as applicable.
- 4.3 Contractor must comply with requirements related to employed persons' hours of work and payment for overtime work, in accordance with ORS 279B.235, 279C.520, and 279C.540, as applicable.
- 4.4 If Contractor is a nonresident bidder and the Contract price exceeds \$10,000, Contractor must promptly report to the Department of Revenue on forms provided by that Department the total contract price, terms of payment, length of contract and such other information as the Department may require before the County will make final payment on the contract, in accordance with ORS 279A.120.
- 4.5 Contractor and any subcontractor must pay to the Department of Revenue all sums withheld from employees, in accordance with ORS 316.167.
- 4.6 Contractor acknowledges that, pursuant to ORS 210.190, no payment may be made by County on account of this Contract if Contractor is indebted to Lane County in any manner, except for taxes not delinquent. Contractor expressly grants County the right to deduct from any payments due on this Contract the amount necessary to satisfy such indebtedness until any such debt has been satisfied.
- 4.7 **Equal Employment Opportunity.** During the performance of this Contract, Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. Contractor will comply with all applicable requirements of 29 CFR Part 471, Appendix A to Subpart A (copy available at: www.dol.gov/olms/regs/compliance/EO13496.htm), and will include the terms of these requirements in all subcontracts entered into under this Contract.
- 4.8 **Oregon False Claims Act.** Contractor acknowledges that the Oregon False Claims Act (ORS 180.750 to 180.785) applies to any action or conduct by Contractor pertaining to this Contract that constitutes a "claim" as defined by the Act. By its execution of this Contract, Contractor

certifies the truthfulness, completeness, and accuracy of any statement or claim it has made may make, or causes to be made that pertains to this Contract or to the Work of the Contract.

- 4.9 Compliance with Law.** In connection with its activities under this Agreement, Contractor must comply with all applicable federal, state and local laws.

5. MODIFICATION AND TERMINATION

- 5.1 Modification.** No modification or amendment to this Contract will bind either party unless in writing and signed by both parties. In lieu of termination pursuant to subsection 5.2.4 below, County may propose modifications to the Contract sufficient to allow County to perform its obligations.

5.2 Termination:

5.2.1 The parties may jointly agree to terminate this Contract at any time by written agreement.

5.2.2 County may terminate this Contract for its convenience at any time with no liability on its part, except to pay for services previously provided, by giving Contractor not less than 30 days' advance written notice.

5.2.3 If County reasonably believes that Contractor is in material breach of Contractor's obligations or any representation or warranty contained in this Contract, County may suspend the Work of this Contract at any time without notice. Upon notice to Contractor of such breach, and failure of Contractor to cure such breach within 7 days of receipt of County's notice, County may terminate this Contract.

5.2.4 County certifies that it has sufficient funds currently authorized for expenditure to finance the costs of this Contract for the period within the current budget. However, Contractor understands and agrees that: (1) if County fails to appropriate funds for any successive budget year, the Contract will terminate at the end of the last fiscal year for which payments have been appropriated, and (2) if County's funding, appropriations, or expenditure authority are reduced to a level insufficient, in County's reasonable administrative discretion, to perform its obligations under this Contract, County may terminate this Contract immediately upon notice to Contractor.

5.2.5 Upon termination pursuant to this subsection, County will have no further obligation to Contractor except for payments for amounts earned prior to the termination date.

- 5.3 Remedies and Default.** County may exercise any of the following remedies for Contractor's failure to perform the scope of work or failure to meet established performance standards: reduce or withhold payment; require Contractor to perform, at Contractor's expense, additional work necessary to perform the identified scope of work or meet the established performance standards; or declare a default, terminating the Contract and seeking damages and other relief available under the terms of the Contract or applicable law.

- 5.4 Force Majeure.** Neither County nor Contractor will be held responsible for delay or default due to force majeure acts, events, or occurrences, including but not limited to fires, riots, wars, and epidemics, unless such delay or default could have been avoided by the exercise of reasonable care, prudence, foresight, and diligence by that party. If delays or nonperformance are caused by a subcontractor of Contractor, Contractor will be liable for such supplies or services if the supplies or services were obtainable from other sources in sufficient time to permit Contractor to meet the required schedule. County may terminate this Contract upon written notice after determining that a delay or default caused by force majeure acts, events, or occurrences will reasonably prevent successful performance of the Contract.

6. DISPUTES

- 6.1 Dispute Resolution.** The parties are required to exert every effort to cooperatively resolve any disagreements that may arise under this Contract. This may be done at any management level, including at a level higher than the persons directly responsible for administration of the Contract. In the event that the parties alone are unable to resolve any conflict under this Contract,

they are encouraged to resolve their differences through mediation or another cooperative dispute resolution process.

- 6.2 Choice of Law, Venue, and Jurisdiction.** All matters in dispute between the parties to this Contract arising from or relating to the Contract, including without limitation alleged tort or violation, are governed by, construed, and enforced in accordance with the laws of the State of Oregon without regard to principles of conflict of laws. All disputes and litigation arising out of this Contract will be decided by the state or federal courts of Oregon, CONTRACTOR HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF SAID COURTS AND WAIVES ANY OBJECTION TO VENUE IN SUCH COURTS, AND WAIVES ANY CLAIM THAT SUCH FORUM IS AN INCONVENIENT FORUM. Venue for all disputes and litigation will be in Lane County, Oregon. This section does not constitute a waiver by County of any form of defense or immunity, whether governmental immunity or otherwise, from any claim or from the jurisdiction of any court.
- 6.3 Attorney Fees.** In the event an action, suit of proceeding, including appeals, is brought for failure to observe any of the terms of this Contract, each party shall be responsible for that party's own attorney fees, expenses, costs and disbursements for the action, suit, proceeding or appeal.

7. MISCELLANEOUS PROVISIONS

7.1 Taxes.

7.1.1 County's Tax-Exempt Status. County is a political subdivision of the State of Oregon, and has been granted tax-exempt status by the Internal Revenue Service, affirmed March 26, 2010, reference number 0248464840. County is not obliged to pay or reimburse any costs for taxes upon goods or services furnished under this Contract. Such taxes are included in Contractor's administrative costs for the Contract and any changes thereto.

7.1.2 Contractor's Taxes. Contractor is independently responsible for its obligations for federal, state, and local sales and income taxes, including the Oregon Corporate Activity Tax, and no amount will be chargeable to County for such taxes.

- 7.2 Public Records.** The parties acknowledge that this Contract and all records held by County are public records and subject to public disclosure unless a statutory exemption applies, and agrees that County shall have no liability for the disclosure of any confidential information in response to a public records request where such disclosure is required by court or district attorney order, or by County's good faith interpretation of its statutory requirements.
- 7.3 Merger and Construction.** This Contract contains the entire agreement of County and Contractor with respect to the subject matter of this Contract, and supersedes all prior negotiations, agreements and understandings. This Contract is the result of an open procurement process and negotiations between the parties, and the provisions of this Contract are to be interpreted and their legal effects determined as a whole, with no part to be construed against the drafter of such part.
- 7.4 Waiver.** Failure of County to enforce any provision of this Contract does not constitute a waiver or relinquishment by County of the right to such performance in the future nor of the right to enforce that or any other provision of this Contract.
- 7.5 Severability.** If any provision of this Contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions are not affected; and the rights and obligations of the parties are to be construed and enforced as if the Contract did not contain the particular provision held to be invalid.
- 7.6 Survival.** The provisions of this Contract with respect to governing law, indemnity, insurance for completed products and operations, warranties, guarantees and, if included in the Contract, attorney fee provisions and limitations, will survive termination or completion of the Contract.
- 7.7 Time is of the Essence.** The parties agree that time is of the essence with respect to all provisions of this Contract.

- 7.8 Non-Assignment.** Contractor may not assign or transfer its interest in this Contract without prior written approval of County.
- 7.9 Binding on Successors and Assigns.** The provisions of this Contract are binding upon and inure to the benefit of the parties to this Contract, their respective successors, and permitted assigns.
- 7.10 No Third-Party Beneficiaries.** County and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives or may be construed to give or provide any benefit or right to third persons, either directly or indirectly, that is greater than the rights and benefits enjoyed by the general public, unless that party is identified by name in this Contract.
- 7.11 Headings.** The headings and captions in this Contract are for reference and identification purposes only and may not be used to construe the meaning or to interpret the Contract.

Contractor shall not commence any work until Contractor obtains, at Contractor's own expense, all required insurance as specified below. Such insurance must have the approval of Lane County as to limits, form and amount. The types of insurance Contractor is required to obtain or maintain for the full period of the contract will be:

☒ **COMMERCIAL GENERAL LIABILITY WITH ADDITIONAL INSURED STATUS** shall include:

Policy must include:

- Commercial General Liability
- Damage to Rented Property (\$50,000)
- Medical Expenses (\$5,000)
- Personal and Advertising (Same as per occurrence)
- Products/Completed Operations (Same as per occurrence)

MINIMUM POLICY LIMITS

- ☐ \$2 million per occurrence*/\$4 million aggregate*
- ☐ Amount required by funding source \$ /\$
- ☒ Other Amount pre-approved by Risk Management:
\$ 1 million per occurrence /\$ 2 million per aggregate

Aggregate limits: ☒ Per Policy (most contracts) ☐ Per Project (construction contracts)

All policies must be of the occurrence form with combined single limit for bodily injury and property damage. Any deviation from this must be approved by Risk Management. All claims-made forms must be approved by Risk Management in advance and provide tail/continuous coverage for 24 months from the end of the project.

☒ **ADDITIONAL INSURED STATUS** for general liability insurance coverage is required for performance of this contract. Unless otherwise specified below, blanket additional insured is acceptable and is considered a written contract requirement on any insurance policies required herein with respect to Provider's activities being performed under the Contract, excluding Professional Liability coverage. The contract **MUST** either include language that the additional insured status is required, or include this Insurance Coverages Required document as an attachment, and proof of blanket coverage from your policy must be provided either by a copy of your policy or by separate blanket endorsement.

☐ *When this box is checked, the Additional Insured status for this contract MUST be by scheduled (or named) endorsement only, and must read:*

Lane County, its officers, agents, employees and volunteers are named as additional insureds with respect to Provider's activities being performed under the Contract. The **additional insureds must be named as an additional insured by separate endorsement**, the policy must be endorsed to show cancellation notices to the Lane County department who originated the contract, and the Endorsement must be attached to the COI.

☒ **AUTOMOBILE LIABILITY WITH ADDITIONAL INSURED STATUS:** Insurance with limits as specified below. The coverage shall include owned, hired, and non-owned automobiles and include Lane County and its divisions, its commissioners, officers, agent, and employees as additional designated insureds (CA 20 48 02 99 or equivalent).

LIMITS* ☐ \$2 million combined single limit per accident for bodily injury and property damage
☐ Amount required by funding source: \$ /\$
☒ Other Amount pre-approved by Risk Management: \$ 1 million /\$

☒ **WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY** as statutorily required for persons performing work under this contract. Any subcontractor hired by Contractor shall also carry Workers' Compensation and Employers' Liability coverage. Sole proprietors not subject to Workers' Compensation coverage must complete, execute, and submit the Workers' Compensation Coverage Exemption Statement.

- ☐ Statutory amount (currently \$500,000 in Oregon, other states may vary)
- ☐ Other: minimum of \$1,000,000 when not regulated by statute

☐ **OTHER** – All non-occurrence coverages must provide tail/continuous coverage for 24 months from the end of the project and shall include completed operations where applicable. All coverages, except Professional Liability, must contain blanket Additional Insured status, unless otherwise indicated.

- ☐ **CYBER** coverage in the amount of \$ (\$2,000,000/occurrence minimum unless indicated).
- ☐ **PROFESSIONAL LIABILITY** coverage: limits not less than \$ (\$2,000,000/occurrence minimum unless indicated).
- ☐ **POLLUTION LIABILITY** coverage: limits not less than \$ (\$2,000,000/occurrence minimum unless indicated).
- ☐ **Type:** : limits not less than \$ (\$1,000,000/occurrence minimum unless indicated).
- ☐ **Type:** : limits not less than \$ (\$1,000,000/occurrence minimum unless indicated).

***Umbrella or Excess coverage to increase the policy limits to the required amount is acceptable!**

☒ **CERTIFICATE HOLDER:** Lane County, its officers, agents, employees and volunteers, c/o Lane County Sheriff's Office

☒ **LANE COUNTY REQUIRES THE COVERAGE TYPES AND AMOUNTS SHOWN ABOVE OR POLICY LIMITS, WHICHEVER IS GREATER.** The policy limits specified above are minimum requirements; Lane County reserves the right to claim up to the policy limits. All coverages are Primary and Non-Contributory with any other insurance and self-insurance. Acceptance of a COI providing less than required coverages does not relieve contractor of the insurance requirements set out above or in the contract. The contractor must notify the County if non-County claims have infringed or impacted the policy. Contractor is required to notify Lane County of any changes to or cancellation of coverage(s) within 24 hours. Contractor is required to provide a copy of the policy to Lane County upon demand.

☒ **DIRECT ALL INSURANCE RELATED DOCUMENTS FOR YOUR CONTRACT TO YOUR CONTACT AT LANE COUNTY; DO NOT DIRECT YOUR DOCUMENTS TO RISK MANAGEMENT AS THIS WILL RESULT IN DELAYS.**

Your Lane County Contact: Janna Beckett

email: janna.beckett@lanecountyor.gov

Phone: 541-682-6293

This document is an attachment to and part of your contract with Lane County.

Lane County Risk Management / LCRISKMG@co.lane.or.us



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
07/17/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Marsh Risk & Insurance Services 1735 Technology Drive, Suite 790 San Jose, CA 95110 Attn: SanJose.CertRequest@marsh.com / FAX 212-948-4335	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
INSURED AVIAT U.S., Inc. 200 Parker Drive, Suite C100A Austin, TX 78728	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A : N/A	
	INSURER B : The Continental Insurance Company	
	INSURER C : N/A	
	INSURER D : N/A	
INSURER E : American Casualty Company of Reading, PA		
INSURER F :		

COVERAGES **CERTIFICATE NUMBER:** SEA-003934192-05 **REVISION NUMBER:** 3

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVO	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PRO-JECT ☐ LOC OTHER:	X	6057082714	03/31/2023	03/31/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
E	☐ AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☒ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ NON-OWNED AUTOS ONLY	X	6057082678	03/31/2023	03/31/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	☐ UMBRELLA LIAB ☐ EXCESS LIAB ☐ DED ☐ RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
B E	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	6057082695 (CA) 6057082681 (AOS)	03/31/2023 03/31/2023	03/31/2024 03/31/2024	☒ PER STATUTE ☐ OTH-ER E L EACH ACCIDENT \$ 1,000,000 E L DISEASE - EA EMPLOYEE \$ 1,000,000 E L DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Lane County, its officers, agents, employees and volunteers are additional insured with respect to General Liability and Auto Liability where required by written contract.

CERTIFICATE HOLDER Lane County, its officers, agents, employees and volunteers, c/o Lane County Sheriff's Office 125 E 8th Ave. Eugene, OR 97408	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Marsh Risk & Insurance Services
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Technology General Liability Extension Endorsement

1. ADDITIONAL INSUREDS

- a. **WHO IS AN INSURED** is amended to include as an **Insured** any person or organization described in paragraphs A. through K. below whom a **Named Insured** is required to add as an additional insured on this **Coverage Part** under a written contract or written agreement, provided such contract or agreement:

- (1) is currently in effect or becomes effective during the term of this **Coverage Part**; and
- (2) was executed prior to:
 - (a) the **bodily injury** or **property damage**; or
 - (b) the offense that caused the **personal and advertising injury**,
for which such additional insured seeks coverage.

- b. However, subject always to the terms and conditions of this policy, including the limits of insurance, the Insurer will not provide such additional insured with:

- (1) a higher limit of insurance than required by such contract or agreement; or
- (2) coverage broader than required by such contract or agreement, and in no event broader than that described by the applicable paragraph A. through K. below.

Any coverage granted by this endorsement shall apply only to the extent permissible by law.

A. Controlling Interest

Any person or organization with a controlling interest in a **Named Insured**, but only with respect to such person or organization's liability for **bodily injury**, **property damage** or **personal and advertising injury** arising out of:

1. such person or organization's financial control of a **Named Insured**; or
2. premises such person or organization owns, maintains or controls while a **Named Insured** leases or occupies such premises;

provided that the coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

B. Co-owner of Insured Premises

A co-owner of a premises co-owned by a **Named Insured** and covered under this insurance but only with respect to such co-owner's liability for **bodily injury**, **property damage** or **personal and advertising injury** as co-owner of such premises.

C. Grantor of Franchise

Any person or organization that has granted a franchise to a **Named Insured**, but only with respect to such person or organization's liability for **bodily injury**, **property damage** or **personal and advertising injury** as grantor of a franchise to the **Named Insured**.

D. Lessor of Equipment

Any person or organization from whom a **Named Insured** leases equipment, but only with respect to liability for **bodily injury**, **property damage** or **personal and advertising injury** caused, in whole or in part, by the **Named Insured's** maintenance, operation or use of such equipment, provided that the **occurrence** giving rise to such **bodily injury**, **property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease.

Technology General Liability Extension Endorsement**E. Lessor of Land**

Any person or organization from whom a **Named Insured** leases land but only with respect to liability for **bodily injury, property damage or personal and advertising injury** arising out of the ownership, maintenance or use of such land, provided that the **occurrence** giving rise to such **bodily injury, property damage** or the offense giving rise to such **personal and advertising injury** takes place prior to the termination of such lease. The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

F. Lessor of Premises

An owner or lessor of premises leased to the **Named Insured**, or such owner or lessor's real estate manager, but only with respect to liability for **bodily injury, property damage or personal and advertising injury** arising out of the ownership, maintenance or use of such part of the premises leased to the **Named Insured**, and provided that the **occurrence** giving rise to such **bodily injury or property damage**, or the offense giving rise to such **personal and advertising injury**, takes place prior to the termination of such lease. The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

G. Mortgagee, Assignee or Receiver

A mortgagee, assignee or receiver of premises but only with respect to such mortgagee, assignee or receiver's liability for **bodily injury, property damage or personal and advertising injury** arising out of the **Named Insured's** ownership, maintenance, or use of a premises by a **Named Insured**.

The coverage granted by this paragraph does not apply to structural alterations, new construction or demolition operations performed by, on behalf of, or for such additional insured.

H. State or Governmental Agency or Subdivision or Political Subdivisions – Permits

A state or governmental agency or subdivision or political subdivision that has issued a permit or authorization but only with respect to such state or governmental agency or subdivision or political subdivision's liability for **bodily injury, property damage or personal and advertising injury** arising out of:

1. the following hazards in connection with premises a **Named Insured** owns, rents, or controls and to which this insurance applies:
 - a. the existence, maintenance, repair, construction, erection, or removal of advertising signs, awnings, canopies, cellar entrances, coal holes, driveways, manholes, marquees, hoistaway openings, sidewalk vaults, street banners, or decorations and similar exposures; or
 - b. the construction, erection, or removal of elevators; or
 - c. the ownership, maintenance or use of any elevators covered by this insurance; or
2. the permitted or authorized operations performed by a **Named Insured** or on a **Named Insured's** behalf.

The coverage granted by this paragraph does not apply to:

- a. **Bodily injury, property damage or personal and advertising injury** arising out of operations performed for the state or governmental agency or subdivision or political subdivision; or
- b. **Bodily injury or property damage** included within the **products-completed operations hazard**.

With respect to this provision's requirement that additional insured status must be requested under a written contract or agreement, the Insurer will treat as a written contract any governmental permit that requires the **Named Insured** to add the governmental entity as an additional insured.





Technology General Liability Extension Endorsement

I. Trade Show Event Lessor

1. With respect to a **Named Insured's** participation in a trade show event as an exhibitor, presenter or displayer, any person or organization whom the **Named Insured** is required to include as an additional insured, but only with respect to such person or organization's liability for **bodily injury, property damage or personal and advertising injury** caused by:
 - a. the **Named Insured's** acts or omissions; or
 - b. the acts or omissions of those acting on the **Named Insured's** behalf,in the performance of the **Named Insured's** ongoing operations at the trade show event premises during the trade show event.
2. The coverage granted by this paragraph does not apply to **bodily injury or property damage** included within the **products-completed operations hazard**.

J. Vendor

Any person or organization but only with respect to such person or organization's liability for **bodily injury or property damage** arising out of **your products** which are distributed or sold in the regular course of such person or organization's business, provided that:

1. The coverage granted by this paragraph does not apply to:
 - a. **bodily injury or property damage** for which such person or organization is obligated to pay **damages** by reason of the assumption of liability in a contract or agreement unless such liability exists in the absence of the contract or agreement;
 - b. any express warranty unauthorized by the **Named Insured**;
 - c. any physical or chemical change in any product made intentionally by such person or organization;
 - d. repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;
 - e. any failure to make any inspections, adjustments, tests or servicing that such person or organization has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products;
 - f. demonstration, installation, servicing or repair operations, except such operations performed at such person or organization's premises in connection with the sale of a product;
 - g. products which, after distribution or sale by the **Named Insured**, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or for such person or organization; or
 - h. **bodily injury or property damage** arising out of the sole negligence of such person or organization for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:
 - (1) the exceptions contained in Subparagraphs d. or f. above; or
 - (2) such inspections, adjustments, tests or servicing as such person or organization has agreed with the **Named Insured** to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products.
2. This Paragraph J. does not apply to any insured person or organization, from whom the **Named Insured** has acquired such products, nor to any ingredient, part or container, entering into, accompanying or containing such products.



Technology General Liability Extension Endorsement

3. This Paragraph J. also does not apply:

- a. to any vendor specifically scheduled as an additional insured by endorsement to this **Coverage Part**;
- b. to any of **your products** for which coverage is excluded by endorsement to this **Coverage Part**; nor
- c. if **bodily injury** or **property damage** included within the **products-completed operations hazard** is excluded by endorsement to this **Coverage Part**.

K. Other Person Or Organization / Your Work

Any person or organization who is not an additional insured under Paragraphs A. through J. above. Such additional insured is an **Insured** solely for **bodily injury**, **property damage** or **personal and advertising injury** for which such additional insured is liable because of the **Named Insured's** acts or omissions.

The coverage granted by this paragraph does not apply to any person or organization:

1. who is specifically scheduled as an additional insured on another endorsement to this **Coverage Part**; nor
2. for **bodily injury** or **property damage** included within the **products-completed operations hazard** except to the extent all of the following apply:
 - a. this **Coverage Part** provides such coverage;
 - b. the written contract or agreement described in the opening paragraph of this **ADDITIONAL INSUREDS** Provision requires the **Named Insured** to provide the additional insured such coverage; and
 - c. the **bodily injury** or **property damage** results from **your work** that is the subject of the written contract or agreement, and such work has not been excluded by endorsement to this **Coverage Part**.

2. ADDITIONAL INSURED - PRIMARY AND NON-CONTRIBUTORY TO ADDITIONAL INSURED'S INSURANCE

- A. The **Other Insurance** Condition in the **COMMERCIAL GENERAL LIABILITY CONDITIONS** Section is amended to add the following paragraph:

If the **Named Insured** has agreed in writing in a contract or agreement that this insurance is primary and non-contributory relative to an additional insured's own insurance, then this insurance is primary, and the Insurer will not seek contribution from that other insurance. For the purpose of this Provision 2., the additional insured's own insurance means insurance on which the additional insured is a named insured.

- B. With respect to persons or organizations that qualify as additional insureds pursuant to paragraph 1.K. of this endorsement, the following sentence is added to the paragraph above:

Otherwise, and notwithstanding anything to the contrary elsewhere in this Condition, the insurance provided to such person or organization is excess of any other insurance available to such person or organization.

3. BODILY INJURY – EXPANDED DEFINITION

Under **DEFINITIONS**, the definition of **bodily injury** is deleted and replaced by the following:

Bodily injury means physical injury, sickness or disease sustained by a person, including death, humiliation, shock, mental anguish or mental injury sustained by that person at any time which results as a consequence of the physical injury, sickness or disease.

4. BROAD KNOWLEDGE OF OCCURRENCE/ NOTICE OF OCCURRENCE

Under **CONDITIONS**, the condition entitled **Duties in The Event of Occurrence, Offense, Claim or Suit Condition** is amended to add the following provisions:

A. BROAD KNOWLEDGE OF OCCURRENCE



Technology General Liability Extension Endorsement

The **Named Insured** must give the Insurer or the Insurer's authorized representative notice of an **occurrence**, offense or **claim** only when the **occurrence**, offense or **claim** is known to a natural person **Named Insured**, to a partner, executive officer, manager or member of a **Named Insured**, or to an **employee** designated by any of the above to give such notice.

B. NOTICE OF OCCURRENCE

The **Named Insured's** rights under this **Coverage Part** will not be prejudiced if the **Named Insured** fails to give the Insurer notice of an **occurrence**, offense or **claim** and that failure is solely due to the **Named Insured's** reasonable belief that the **bodily injury** or **property damage** is not covered under this **Coverage Part**. However, the **Named Insured** shall give written notice of such **occurrence**, offense or **claim** to the Insurer as soon as the **Named Insured** is aware that this insurance may apply to such **occurrence**, offense or **claim**.

5. BROAD NAMED INSURED

WHO IS AN INSURED is amended to delete its Paragraph 3. in its entirety and replace it with the following:

3. Pursuant to the limitations described in Paragraph 4. below, any organization in which a **Named Insured** has management control:

- a. on the effective date of this **Coverage Part**; or
- b. by reason of a **Named Insured** creating or acquiring the organization during the **policy period**,

qualifies as a **Named Insured**, provided that there is no other similar liability insurance, whether primary, contributory, excess, contingent or otherwise, which provides coverage to such organization, or which would have provided coverage but for the exhaustion of its limit, and without regard to whether its coverage is broader or narrower than that provided by this insurance.

But this **BROAD NAMED INSURED** provision does not apply to:

- (a) any partnership or joint venture; or
- (b) any organization for which coverage is excluded by another endorsement attached to this **Coverage Part**.

For the purpose of this provision, and of this endorsement's **JOINT VENTURES / PARTNERSHIP / LIMITED LIABILITY COMPANIES** provision, management control means:

- A. owning interests representing more than 50% of the voting, appointment or designation power for the selection of a majority of the Board of Directors of a corporation, or the members of the management board of a limited liability company; or
 - B. having the right, pursuant to a written trust agreement, to protect, control the use of, encumber or transfer or sell property held by a trust.
4. With respect to organizations which qualify as **Named Insureds** by virtue of Paragraph 3. above, this insurance does not apply to:
- a. **bodily injury** or **property damage** that first occurred prior to the date of management control, or that first occurs after management control ceases; nor
 - b. **personal or advertising injury** caused by an offense that first occurred prior to the date of management control or that first occurs after management control ceases.
5. The insurance provided by this **Coverage Part** applies to **Named Insureds** when trading under their own names or under such other trading names or doing-business-as names (dba) as any **Named Insured** should choose to employ.



Technology General Liability Extension Endorsement

6. ESTATES, LEGAL REPRESENTATIVES, AND SPOUSES

The estates, heirs, legal representatives and **spouses** of any natural person **Insured** shall also be insured under this policy; provided, however, coverage is afforded to such estates, heirs, legal representatives, and **spouses** only for **claims** arising solely out of their capacity or status as such and, in the case of a **spouse**, where such **claim** seeks **damages** from marital community property, jointly held property or property transferred from such natural person **Insured** to such **spouse**. No coverage is provided for any act, error or omission of an estate, heir, legal representative, or **spouse** outside the scope of such person's capacity or status as such, provided however that the **spouse** of a natural person **Named Insured** and the **spouses** of members or partners of joint venture or partnership **Named Insureds** are **Insureds** with respect to such **spouses'** acts, errors or omissions in the conduct of the **Named Insured's** business.

7. EXPECTED OR INTENDED INJURY – EXCEPTION FOR REASONABLE FORCE

Under **COVERAGES, Coverage A – Bodily Injury And Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Expected or Intended Injury** and replace it with the following:

This insurance does not apply to:

Expected or Intended Injury

Bodily injury or property damage expected or intended from the standpoint of the **Insured**. This exclusion does not apply to **bodily injury or property damage** resulting from the use of reasonable force to protect persons or property.

8. IN REM ACTIONS

A quasi in rem action against any vessel owned or operated by or for the **Named Insured**, or chartered by or for the **Named Insured**, will be treated in the same manner as though the action were in personam against the **Named Insured**.

9. INCIDENTAL HEALTH CARE MALPRACTICE COVERAGE

Solely with respect to **bodily injury** that arises out of a **health care incident**:

A. Under **COVERAGES, Coverage A – Bodily Injury And Property Damage Liability**, the **Insuring Agreement** is amended to replace Paragraphs 1.b.(1) and 1.b.(2) with the following:

b. This insurance applies to **bodily injury** provided that the professional health care services are incidental to the **Named Insured's** primary business purpose, and only if:

(1) such **bodily injury** is caused by an **occurrence** that takes place in the **coverage territory**.

(2) the **bodily injury** first occurs during the **policy period**. All **bodily injury** arising from an **occurrence** will be deemed to have occurred at the time of the first act, error, or omission that is part of the **occurrence**; and

B. Under **COVERAGES, Coverage A – Bodily Injury And Property Damage Liability**, the paragraph entitled **Exclusions** is amended to:

i. add the following to the **Employers Liability** exclusion:

This exclusion applies only if the **bodily injury** arising from a **health care incident** is covered by other liability insurance available to the **Insured** (or which would have been available but for exhaustion of its limits).

ii. delete the exclusion entitled **Contractual Liability** and replace it with the following:

This insurance does not apply to:



Technology General Liability Extension Endorsement**Contractual Liability**

the **Insured's** actual or alleged liability under any oral or written contract or agreement, including but not limited to express warranties or guarantees.

iii. add the following additional exclusions.

This insurance does not apply to:

Discrimination

any actual or alleged discrimination, humiliation or harassment, that includes but shall not be limited to **claims** based on an individual's race, creed, color, age, gender, national origin, religion, disability, marital status or sexual orientation.

Dishonesty or Crime

Any actual or alleged dishonest, criminal or malicious act, error or omission.

Medicare/Medicaid Fraud

any actual or alleged violation of law with respect to Medicare, Medicaid, Tricare or any similar federal, state or local governmental program.

Services Excluded by Endorsement

Any **health care incident** for which coverage is excluded by endorsement.

C. DEFINITIONS is amended to:

i. add the following definitions:

Health care incident means an act, error or omission by the **Named Insured's employees or volunteer workers** in the rendering of:

- a. **professional health care services** on behalf of the **Named Insured** or
- b. Good Samaritan services rendered in an emergency and for which no payment is demanded or received.

Professional health care services means any health care services or the related furnishing of food, beverages, medical supplies or appliances by the following providers in their capacity as such but solely to the extent they are duly licensed as required:

- a. Physician;
- b. Nurse;
- c. Nurse practitioner;
- d. Emergency medical technician;
- e. Paramedic;
- f. Dentist;
- g. Physical therapist;
- h. Psychologist;
- i. Speech therapist;
- j. Other allied health professional; or

Professional health care services does not include any services rendered in connection with human clinical trials or product testing.

Technology General Liability Extension Endorsement

- ii. delete the definition of **occurrence** and replace it with the following:

Occurrence means a **health care incident**. All acts, errors or omissions that are logically connected by any common fact, circumstance, situation, transaction, event, advice or decision will be considered to constitute a single **occurrence**;

- iii. amend the definition of **Insured** to:

- a. add the following:

- the **Named Insured's employees** are **Insureds** with respect to:

(1) **bodily injury** to a **co-employee** while in the course of the **co-employee's** employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business; and

(2) **bodily injury** to a **volunteer worker** while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

- the **Named Insured's volunteer workers** are **Insureds** with respect to:

(1) **bodily injury** to a **co-volunteer worker** while performing duties related to the conduct of the **Named Insured's** business; and

(2) **bodily injury** to an **employee** while in the course of the **employee's** employment by the **Named Insured** or while performing duties related to the conduct of the **Named Insured's** business;

when such **bodily injury** arises out of a **health care incident**.

- b. delete Subparagraphs (a), (b), (c) and (d) of Paragraph 2.a.(1) of **WHO IS AN INSURED**.

- c. add the following:

Insured does not include any physician while acting in his or her capacity as such.

- D. The **Other Insurance** condition is amended to delete Paragraph b.(1) in its entirety and replace it with the following:

Other Insurance

b. **Excess Insurance**

- (1) To the extent this insurance applies, it is excess over any other insurance, self insurance or risk transfer instrument, whether primary, excess, contingent or on any other basis, except for insurance purchased specifically by the **Named Insured** to be excess of this coverage.

10. JOINT VENTURES / PARTNERSHIP / LIMITED LIABILITY COMPANIES

WHO IS AN INSURED is amended to delete its last paragraph and replace it with the following:

No person or organization is an **Insured** with respect to:

- the conduct of any current or past partnership or joint venture that is not shown as a **Named Insured** in the Declarations; nor
- the conduct of a current or past limited liability company in which a **Named Insured's** interest does/did not rise to the level of management control;

except that if the **Named Insured** was a joint venturer, partner, or member of such a limited liability company, and such joint venture, partnership or limited liability company terminated prior to or during the **policy period**, then such



Technology General Liability Extension Endorsement

Named Insured is an **Insured** with respect to its interest in such joint venture, partnership or limited liability company but only to the extent that:

- a. any offense giving rise to **personal and advertising injury** occurred prior to such termination date, and the **personal and advertising injury** arising out of such offense, first occurred after such termination date;
- b. the **bodily injury or property damage** first occurred after such termination date; and
- c. there is no other valid and collectible insurance purchased specifically to insure the partnership, joint venture or limited liability company.

11. LEGAL LIABILITY – DAMAGE TO PREMISES

- A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete the first paragraph immediately following subparagraph (6) of the **Damage to Property** exclusion and replace it with the following:

Paragraphs (1), (3) and (4) of this exclusion do not apply to **property damage** (other than damage by fire, lightning, explosion, smoke or leakage from automatic fire protective systems) to premises rented to the **Named Insured** or temporarily occupied by the **Named Insured** with the permission of the owner, nor to the contents of premises rented to the **Named Insured** for a period of 7 or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in **LIMITS OF INSURANCE**.

- B. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete its last paragraph and replace it with the following:

Exclusions c. through n. do not apply to damage by fire, lightning, explosion, smoke or leakage from automatic fire protective systems to premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with permission of the owner, nor to damage to the contents of premises rented to a **Named Insured** for a period of 7 or fewer consecutive days.

A separate limit of insurance applies to this coverage as described in the **LIMITS OF INSURANCE** Section.

- C. **LIMITS OF INSURANCE** is amended to delete Paragraph 6. (the Damage To Premises Rented To You Limit) and replace it with the following:

6. Subject to Paragraph 5. above, (the Each Occurrence Limit), the Damage To Premises Rented To You Limit is the most the Insurer will pay under **COVERAGE A** for damages because of **property damage** to:

- a. any one premises while rented to a **Named Insured** or temporarily occupied by a **Named Insured** with the permission of the owner; and
- b. contents of such premises if the premises is rented to the **Named Insured** for a period of 7 or fewer consecutive days.

The Damage To Premises Rented To You Limit is \$500,000. unless a higher Damage to Premises Rented to You Limit is shown in the Declarations.

- D. The **Other Insurance** Condition is amended to delete Paragraph b.(1)(a)(ii), and replace it with the following:

- (ii) That is property insurance for premises rented to a **Named Insured**, for premises temporarily occupied by the **Named Insured** with the permission of the owner; or for personal property of others in the **Named Insured's** care, custody or control;

- E. This Provision 11. does not apply if liability for damage to premises rented to a **Named Insured** is excluded by another endorsement attached to this **Coverage Part**.



Technology General Liability Extension Endorsement

12. MEDICAL PAYMENTS

A. **LIMITS OF INSURANCE** is amended to delete Paragraph 7. (the Medical Expense Limit) and replace it with the following:

7. Subject to Paragraph 5. above (the Each Occurrence Limit), the Medical Expense Limit is the most the Insurer will pay under **Coverage C – Medical Payments** for all medical expenses because of **bodily injury** sustained by any one person. The Medical Expense Limit is the greater of:

- (1) \$15,000 unless a different amount is shown here: ; or
- (2) the amount shown in the Declarations for Medical Expense Limit.

B. Under **COVERAGES**, the **Insuring Agreement of Coverage C – Medical Payments** is amended to replace Paragraph 1.a.(3)(b) with the following:

(b) The expenses are incurred and reported to the Insurer within three years of the date of the accident; and

13. NON-OWNED AIRCRAFT

Under **COVERAGES**, **Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended as follows:

The exclusion entitled **Aircraft, Auto or Watercraft** is amended to add the following:

This exclusion does not apply to an aircraft not owned by any **Named Insured**, provided that:

1. the pilot in command holds a currently effective certificate issued by the duly constituted authority of the United States of America or Canada, designating that person as a commercial or airline transport pilot;
2. the aircraft is rented with a trained, paid crew to the **Named Insured**; and
3. the aircraft is not being used to carry persons or property for a charge.

14. NON-OWNED WATERCRAFT

Under **COVERAGES**, **Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete subparagraph (2) of the exclusion entitled **Aircraft, Auto or Watercraft**, and replace it with the following.

This exclusion does not apply to:

- (2) a watercraft that is not owned by any **Named Insured**, provided the watercraft is:
 - (a) less than 75 feet long; and
 - (b) not being used to carry persons or property for a charge.

15. PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION

A. Under **DEFINITIONS**, the definition of **personal and advertising injury** is amended to add the following tort:

- Discrimination or humiliation that results in injury to the feelings or reputation of a natural person.

B. Under **COVERAGES**, **Coverage B – Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to:

1. delete the Exclusion entitled **Knowing Violation Of Rights Of Another** and replace it with the following:

This insurance does not apply to:



Technology General Liability Extension Endorsement**Knowing Violation of Rights of Another**

Personal and advertising injury caused by or at the direction of the **Insured** with the knowledge that the act would violate the rights of another and would inflict **personal and advertising injury**. This exclusion shall not apply to discrimination or humiliation that results in injury to the feelings or reputation of a natural person, but only if such discrimination or humiliation is not done intentionally by or at the direction of:

- (a) the **Named Insured**; or
- (b) any **executive officer**, director, stockholder, partner, member or manager (if the **Named Insured** is a limited liability company) of the **Named Insured**.

2. add the following exclusions:

This insurance does not apply to:

Employment Related Discrimination

Discrimination or humiliation directly or indirectly related to the employment, prospective employment, past employment or termination of employment of any person by any **Insured**.

Premises Related Discrimination

discrimination or humiliation arising out of the sale, rental, lease or sub-lease or prospective sale, rental, lease or sub-lease of any room, dwelling or premises by or at the direction of any **Insured**.

Notwithstanding the above, there is no coverage for fines or penalties levied or imposed by a governmental entity because of discrimination.

The coverage provided by this **PERSONAL AND ADVERTISING INJURY –DISCRIMINATION OR HUMILIATION** Provision does not apply to any person or organization whose status as an **Insured** derives solely from

- Provision 1. **ADDITIONAL INSURED** of this endorsement; or
- attachment of an additional insured endorsement to this **Coverage Part**.

16. PERSONAL AND ADVERTISING INJURY - LIMITED CONTRACTUAL LIABILITY

- A. Under **COVERAGES**, **Coverage B –Personal and Advertising Injury Liability**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Contractual Liability** and replace it with the following:

This insurance does not apply to:

Contractual Liability

Personal and advertising injury for which the **Insured** has assumed liability in a contract or agreement.

This exclusion does not apply to liability for **damages**:

- (1) that the **Insured** would have in the absence of the contract or agreement; or
- (2) assumed in a contract or agreement that is an **insured contract** provided the offense that caused such **personal or advertising injury** first occurred subsequent to the execution of such **insured contract**. Solely for the purpose of liability assumed in an **insured contract**, reasonable attorney fees and necessary litigation expenses incurred by or for a party other than an **Insured** are deemed to be **damages** because of **personal and advertising injury** provided:
 - (a) liability to such party for, or for the cost of, that party's defense has also been assumed in such **insured contract**; and
 - (b) such attorney fees and litigation expenses are for defense of such party against a civil or alternative dispute resolution proceeding in which covered **damages** are alleged.



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- B. Solely for the purpose of the coverage provided by this paragraph, **DEFINITIONS** is amended to delete the definition of **Insured contract** in its entirety, and replace it with the following:

Insured contract means that part of a written contract or written agreement pertaining to the **Named Insured's** business under which the **Named Insured** assumes the tort liability of another party to pay for **personal or advertising injury** arising out of the offense of false arrest, detention or imprisonment. Tort liability means a liability that would be imposed by law in the absence of any contract or agreement.

- C. Solely for the purpose of the coverage provided by this paragraph, the following changes are made to the Section entitled **SUPPLEMENTARY PAYMENTS – COVERAGES A AND B**:

1. Paragraph 2.d. is replaced by the following:

- d. The allegations in the **suit** and the information the Insurer knows about the offense alleged in such **suit** are such that no conflict appears to exist between the interests of the **Insured** and the interests of the indemnitee;

2. The first unnumbered paragraph beneath Paragraph 2.f.(2)(b) is deleted and replaced by the following:

So long as the above conditions are met, attorneys fees incurred by the Insurer in the defense of that indemnitee, necessary litigation expenses incurred by the Insurer, and necessary litigation expenses incurred by the indemnitee at the Insurer's request will be paid as **defense costs**. Notwithstanding the provisions of Paragraph e.(2) of the Contractual Liability exclusion (as amended by this Endorsement), such payments will not be deemed to be **damages for personal and advertising injury** and will not reduce the limits of insurance.

- D. This **PERSONAL AND ADVERTISING INJURY - LIMITED CONTRACTUAL LIABILITY** Provision does not apply if **Coverage B –Personal and Advertising Injury Liability** is excluded by another endorsement attached to this Coverage Part.

17. PROPERTY DAMAGE – ELEVATORS

- A. Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended such that the **Damage to Your Product** Exclusion and subparagraphs (3), (4) and (6) of the **Damage to Property** Exclusion do not apply to **property damage** that results from the use of elevators.

- B. Solely for the purpose of the coverage provided by this **PROPERTY DAMAGE – ELEVATORS** Provision, the **Other Insurance** conditions is amended to add the following paragraph:

This insurance is excess over any of the other insurance, whether primary, excess, contingent or on any other basis that is Property insurance covering property of others damaged from the use of elevators.

18. SUPPLEMENTARY PAYMENTS

The section entitled **SUPPLEMENTARY PAYMENTS – COVERAGES A AND B** is amended as follows:

- A. Paragraph 1.b. is amended to delete the \$250 limit shown for the cost of bail bonds and replace it with a \$5,000. limit; and
- B. Paragraph 1.d. is amended to delete the limit of \$250 shown for daily loss of earnings and replace it with a \$1,000. limit.

19. PROPERTY DAMAGE - PATTERNS MOLDS AND DIES

Under **COVERAGES, Coverage A – Bodily Injury and Property Damage Liability**, the paragraph entitled **Exclusions** is amended to delete subparagraphs (3) and (4) of the Exclusion entitled **Damage to Property**, but only with respect to patterns, molds or dies that are in the care, custody or control of the **Insured**, and only if such patterns, molds or dies are not being used to perform operations at the time of loss. A limit of insurance of \$25,000 per **policy period** applies to this **PROPERTY DAMAGE - PATTERNS MOLDS AND DIES** coverage, and this limit:



**Technology General Liability Extension Endorsement**

- A. is included within the General Aggregate Limit as described in **LIMITS OF INSURANCE**; and
- B. applies excess over any valid and collectible property insurance available to the **Insured**, including any deductible applicable to such insurance; the **Other Insurance** condition is changed accordingly.

20. UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

If the **Named Insured** unintentionally fails to disclose all existing hazards at the inception date of the **Named Insured's Coverage Part**, the Insurer will not deny coverage under this **Coverage Part** because of such failure.

21. WAIVER OF SUBROGATION - BLANKET

Under **CONDITIONS**, the condition entitled **Transfer Of Rights Of Recovery Against Others To Us** is amended to add the following:

The Insurer waives any right of recovery the Insurer may have against any person or organization because of payments the Insurer makes for injury or damage arising out of:

- 1. the **Named Insured's** ongoing operations; or
- 2. **your work** included in the **products-completed operations hazard**.

However, this waiver applies only when the **Named Insured** has agreed in writing to waive such rights of recovery in a written contract or written agreement, and only if such contract or agreement:

- 1. is in effect or becomes effective during the term of this **Coverage Part**; and
- 2. was executed prior to the **bodily injury, property damage or personal and advertising injury** giving rise to the claim.

All other terms and conditions of the Policy remain unchanged.

This endorsement, which forms a part of and is for attachment to the Policy issued by the designated Insurers, takes effect on the effective date of said Policy at the hour stated in said Policy, unless another effective date is shown below, and expires concurrently with said Policy.



EXTENDED COVERAGE - BA PLUS - FOR HIRED AND NON-OWNED AUTOS

It is understood and agreed that this endorsement amends the **BUSINESS AUTO COVERAGE FORM** as follows. If any other endorsement attached to this policy amends any provision also amended by this endorsement, then that other endorsement controls with respect to such provision, and the changes made by this endorsement to such provision do not apply.

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I. AMENDMENTS TO LIABILITY COVERAGE

A. Amendments to Who Is An Insured

Under **SECTION II – COVERED AUTOS LIABILITY COVERAGE**, the paragraph entitled **Who Is An Insured** is amended to add the following:

1. Majority Owned Corporations

Any incorporated entity in which you own a majority of the voting stock on the inception date of this Coverage Form is an **insured**, but only if such entity is not an **insured** under any other liability "policy" that provides **auto** coverage.

2. Newly Acquired Organizations

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Any organization you newly acquire or form during the policy period, other than a limited liability company, partnership or joint venture, and in which you maintain majority ownership interest is an **insured**, but only if such organization is not an **insured** under any other liability "policy" that provides **auto** coverage. The insurance afforded by this provision:

- a. Is effective on the date of acquisition or formation of the organization, and applies until:
 - (1) The end of the policy period of this Coverage Form; or
 - (2) The next anniversary of this Coverage Form's inception date, whichever is earlier; and
- b. Does not apply to **bodily injury** or **property damage** caused by an **accident** that occurred before you acquired or formed the organization.

3. Additional Insureds Required By Written Contract

Any person or organization that you are required by written contract to make an additional insured under this insurance is an **insured**, but only with respect to that person or organization's legal liability for acts or omissions of a person who qualifies as an **insured** for Liability Coverage under **SECTION II - WHO IS AN INSURED** of this Coverage Form.

4. Employee-Hired Autos

Any **employee** of yours is an **insured** while operating with your permission an **auto** hired or rented under a contract in that **employee's** name, while performing duties related to the conduct of your business.

With respect to provisions **A.1.** and **A.2.** above, "policy" includes those policies that were in force on the inception date of this Coverage Form, but:

- i. Which are no longer in force; or
- ii. Whose limits have been exhausted.

B. Increased Loss of Earnings Allowance

Under **SECTION II – COVERED AUTOS LIABILITY COVERAGE**, the paragraph entitled **Coverage Extensions** is amended under **Supplementary Payment** subparagraph (4) to delete the \$250. a day limit for loss of earnings and replace it with a \$500. a day limit.

C. Fellow Employee Coverage

Under **SECTION II – COVERED AUTOS LIABILITY COVERAGE**, the paragraph entitled **Exclusions** is amended to delete the exclusion entitled **Fellow Employee**.

II. AMENDMENTS TO PHYSICAL DAMAGE COVERAGE

A. Increased Loss of Use Expense

Under **SECTION III – PHYSICAL DAMAGE COVERAGE**, the paragraph entitled **Coverage Extensions** is amended under **Loss of Use Expenses** to delete the maximum of \$600., and replace it with a maximum of \$800.

B. Broadened Electronic Equipment Coverage

Under **SECTION III – PHYSICAL DAMAGE COVERAGE**, the paragraph entitled **Exclusions** is amended to delete paragraphs 5.a through 5.d. in their entirety, and replace them with the following:

- 5. Exclusions 4.c. and 4.d. above do not apply to loss to any electronic equipment that at the time of loss is:

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- a. Permanently installed in or upon a covered **auto**, nor to such equipment's antennas or other accessories used with such equipment. A \$100 deductible applies to this provision, and supersedes any otherwise applicable deductible; or
- b. Designed to be operated solely by use of the power from the **auto's** electrical system and is:
 - (1) Removable from a housing unit which is permanently installed in or upon the covered **auto**;
 - (2) An integral part of the same unit housing any electronic equipment described in paragraphs a. or b.(1) above; or
 - (3) Necessary for the normal operation of the covered **auto** or the monitoring of the covered **auto's** operating system.

III. AMENDMENTS TO BUSINESS AUTO CONDITIONS

A. Knowledge of Accident or Loss

Under **BUSINESS AUTO CONDITIONS**, the **Loss Condition** entitled **Duties In the Event of Accident, Claims, Suit, or Loss** is amended to add the following subparagraph a.(4):

- (4) If your **employees** know of an **accident** or **loss**, this will not mean that you have such knowledge until such **accident** or **loss** is known to a natural person Named Insured, to a partner, executive officer, manager or member of a Named Insured, or to an **employee** designated by any of the above to be your insurance manager.

B. Knowledge of Documents

Under **BUSINESS AUTO CONDITIONS**, the **Loss Condition** entitled **Duties In the Event of Accident, Claims, Suit, or Loss** is amended to add the following subparagraph b.(6):

- (6) If your **employees** know of documents concerning a claim or **suit**, this will not mean that you have such knowledge until such documents are known to a natural person Named Insured, to a partner, executive officer, manager or member of a Named Insured, or to an **employee** designated by any of the above to be your insurance manager.

C. Waiver of Subrogation

Under **BUSINESS AUTO CONDITIONS**, the **Loss Condition** entitled **Transfer Of Rights Of Recovery Against Others To Us** is amended to add the following:

We waive any right of recovery we may have, because of payments we make for injury or damage, against any person or organization for whom or which you are required by written contract or agreement to obtain this waiver from us.

This injury or damage must arise out of your activities under a contract with that person or organization.

You must agree to that requirement prior to an **accident** or **loss**.

D. Unintentional Failure To Disclose Hazards

Under **BUSINESS AUTO CONDITIONS**, the **General Condition** entitled **Concealment, Misrepresentation or Fraud** is amended to add the following:

Your failure to disclose all hazards existing on the inception date of this Coverage Form shall not prejudice you with respect to the coverage provided by this insurance, provided such failure or omission is not intentional.

E. Primary and Non-Contributory When Required By Contract

Under **BUSINESS AUTO CONDITIONS**, the **General Condition** entitled **Other Insurance** is amended to add the following:

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Notwithstanding provisions 5.a. through 5.d. above, the coverage provided by this Coverage Form shall be on a primary and non-contributory basis when required to be so by a written contract entered into prior to **accident or loss**.

IV. AMENDMENTS TO DEFINITIONS

A. Broadened Bodily Injury

Under **DEFINITIONS**, the definition of **bodily injury** is deleted and replaced by the following:

Bodily injury means physical injury, sickness or disease sustained by a person, including death, mental anguish or mental injury sustained by that person which results as a consequence of the physical injury, sickness or disease.

All other terms and conditions of the policy remain unchanged

This endorsement, which forms a part of and is for attachment to the policy issued by the designated Insurers, takes effect on the Policy Effective date of said policy at the hour stated in said policy, unless another effective date (the Endorsement Effective Date) is shown below, and expires concurrently with said policy.

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EXHIBIT D -- EQUIPMENT/FEE SCHEDULE



AVIAT U.S., INC.
200 Parker Drive, Suite C100A
Austin, TX 78728

Company **Lane County Sheriff's Office, OR**
Attn: Brian Greig

Aviat Networks Confidential and Proprietary Information

Blanton - LCSO MW Upgrade, Eclipse IRU600 6 GHz

Proposal Number	:	NA220307-68428
Proposal Date	:	6/26/2023
Issue No	:	H
Territory Manager	:	L. Brigdan
System Engineer	:	C. Menor
Sales Engineer	:	M. Martinez
Terms	:	NASPO 00318
Delivery	:	7 to 9 weeks ARO
Expiration	:	90 days
Currency	:	USD
Freight	:	Prepaid & Bill, Destination

ITEM		EQUIPMENT LIST DESCRIPTION	PRODUCT CODE PART NUMBER	UNIT PRICE	SYSTEM		BLANTON HEIGHTS		LCSO / COURTHOUSE		Spares		Services	
					QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY	PRICE
Eclipse Microwave Radio														
1.100	Indoor RFU													
1.101	IRU600V4 RFSEC ASSY MHSB RX UNEQUAL SPLIT, 1F TR SP-HP 5.8-U6 GHz, Filter-non ACCP	EV206-AMT-AM0-410000	\$28,475.00	4	\$113,900.00			2	\$56,950.00	2	\$56,950.00			
1.102	UPGRADE IRU 600 Nodal High power option 4 x RFU	EZG-64	\$8,767.00	2	\$17,534.00			1	\$8,767.00	1	\$8,767.00			
IRU600 WG Kits														
1.201	WG EXT KIT IRU600 V3 6GHZ SH1-PO1, 1+0/MHSB 1ANT, RPT(RMAIN)	179-530135-AA101	\$342.00	2	\$684.00			1	\$342.00	1	\$342.00			
1.202	WG EXT KIT IRU600 V3 6GHZ SH2-PO2, 1+0/MHSB 1ANT, RPT(RMAIN)	179-530135-BB201	\$985.00	2	\$1,970.00			1	\$985.00	1	\$985.00			
1.203	EXT BRKT KIT IRU600 2 SHELF	179-530089-001	\$190.00	2	\$380.00			1	\$190.00	1	\$190.00			
- Quoted waveguide kits assume that the new proposed IRU600 RFUs will be installed at top position of rack with Aviat standard rack unit spacing.														
Packet Node - INUe														
1.300														
1.301	ECLIPSE, INTELLIGENT NODE UNIT 2RU, INC IDCE, FAN, NCCV3, HIGH OUTPUT (EXX-000-205)	EXX-000-205	\$2,530.00	2	\$5,060.00			1	\$2,530.00	1	\$2,530.00			
1.302	KIT BRACKET 2RU	179-530064-001	\$24.00	2	\$48.00			1	\$24.00	1	\$24.00			
1.303	NODE PROTECTION CARD, HIGH OUTPUT	EXS-002	\$519.00	2	\$1,038.00			1	\$519.00	1	\$519.00			
1.304	AUX, ALARM I/O CARD	EXA-001	\$456.00	4	\$1,824.00			2	\$912.00	2	\$912.00			
1.305	RAC 70V2, QPSK-4096QAM, NO XPIC, ACM	EXR-700-002	\$1,457.00	8	\$11,656.00			4	\$5,828.00	4	\$5,828.00			
1.306	ECLIPSE, DAC 16XE1/DS1 V3, PROTECTABLE	EXD-161-002	\$578.00	8	\$4,624.00			4	\$2,312.00	4	\$2,312.00			
1.307	50 Mbps Node radio capacity licence	EZE-08001	\$219.00	2	\$438.00			1	\$219.00	1	\$219.00			
1.308	LICENCE UPGRADE, EZE-08001 TO EZA-08006 50 Mbps TO 400 Mbps	EZA-08006-LU1	\$7,087.00	2	\$14,174.00			1	\$7,087.00	1	\$7,087.00			
1.309	LAYER 1 LINK AGGREGATION NODAL ON DAC GE / DAC GE3	EZF-01	\$329.00	2	\$658.00			1	\$329.00	1	\$329.00			
1.310	UPGRADE LAYER 1 LINK AGGREGATION ON DAC GE / DAC GE3	EZG-01	\$329.00	2	\$658.00			1	\$329.00	1	\$329.00			
- Customer will re-use existing NTUe shelf and DAC GE3 modules at Blanton and LCSO. License upgrades included in this proposal quote.														
Eclipse Accessories														
1.401	CABLE, ETHERNET, CAT 5E, SHIELDED, 26 AWG, INDOOR, BOTH ENDS RJ45 (M) CONNECTORS, 2M (6.56'), BLACK	037-579124-002	\$6.00	6	\$36.00			3	\$18.00	3	\$18.00			
1.402	2x HDR-ES0 TO Y JOIN TO 24AWG FREE END 3.5M	037-579408-003	\$228.00	8	\$1,824.00			4	\$912.00	4	\$912.00			
1.403	CABLE, ALARM I/O, 24AWG, HD15 TO WIREWRAP, 15M	037-579470-015	\$123.00	4	\$492.00			2	\$246.00	2	\$246.00			
1.404	M66 Punch-Down Block Kit	179-530132-001	\$80.00	2	\$160.00			1	\$80.00	1	\$80.00			
- Customer's existing NTUe shelves at Blanton and LCSO includes GE3 Protection Cables and Electrical SFPs														
Eclipse Spares														
2.000														
2.001	RFU, MP, IRU600V4 1F TR, 5.8+L6-U6 GHz, 5725-7125 MHz	ERM-ATT-401	\$10,959.00	1	\$10,959.00							1	\$10,959.00	
2.002	FAN TRAY KIT, IRU600V4 (2 Fan Trays per kit)	179-531050-001	\$606.00	1	\$606.00							1	\$606.00	
2.003	ECLIPSE, INTELLIGENT NODE UNIT 2RU, INC IDCE, FAN, NCCV3, HIGH OUTPUT (EXX-000-205)	EXX-000-205	\$2,530.00	1	\$2,530.00							1	\$2,530.00	
2.004	NODE PROTECTION CARD, HIGH OUTPUT	EXS-002	\$519.00	1	\$519.00							1	\$519.00	
2.005	AUX, ALARM I/O CARD	EXA-001	\$456.00	1	\$456.00							1	\$456.00	
2.006	RAC 70V2, QPSK-4096QAM, NO XPIC, ACM	EXR-700-002	\$1,457.00	1	\$1,457.00							1	\$1,457.00	
2.007	DAC GE3 GIGABIT ETHERNET SWITCH CARD	EXD-161-002	\$1,644.00	1	\$1,644.00							1	\$1,644.00	
2.008	ECLIPSE, DAC 16XE1/DS1 V3, PROTECTABLE	EXD-161-002	\$578.00	1	\$578.00							1	\$578.00	
2.009	CABLE PROT / BRIDGEING GE3, DIRECT FIT, 500mm	037-579461-500	\$53.00	1	\$53.00							1	\$53.00	
2.010	SFP Elec GIGE RJ45 100m 0 to 70C	083-845434-001	\$83.00	1	\$83.00							1	\$83.00	
Jackfield / Interface panel														
3.001	PATCH PANEL, CAT 5E, 24 PORT, 1 RU, 19" WIDTH, RJ45 IN FRONT, 110-TYPE CONNECTOR BLOCKS IN REAR	LOC-JPM5E24A	\$390.00	4	\$1,560.00			2	\$780.00	2	\$780.00			
Power Accessories														
4.001	BREAKER PANEL KIT, 1 BREAKER PNL W/10 BLANK COVERS AND NO BREAKERS	179-530307-9910	\$686.00	2	\$1,372.00			1	\$686.00	1	\$686.00			
4.002	STANDARD DC AND GND KIT	179-530118-001	\$650.00	2	\$1,300.00			1	\$650.00	1	\$650.00			
4.003	CIRCUIT BREAKER 20 AMP SNAPAK	PWR-000053-TRM	\$22.00	8	\$176.00			4	\$88.00	4	\$88.00			
4.004	CIRCUIT BREAKER 5 AMP SNAPAK (030017750E)	PWR-000049-TRM	\$22.00											
- Customer will supply or re-use existing racks for each site.														
Antennas and accessories														
5.001	ANTENNA, 16U6 GHZ, 1.8 M (6FT), VALULINE, HP, HIGH XPD, REMOTE MOUNT, DISH (STD, WHITE RAL9016), 5.925-7.125, RADOME (STD, GRAY), CPR137G, DUAL POL., CLASS III/FCC101A, SINGLE PIECE REFLECTOR, 200 KMPH, 200 KMPH (4X6-6W-6WH)	AND-HX6-6W-6WH	\$3,983.00	2	\$7,966.00			1	\$3,983.00	1	\$3,983.00			
5.002	STRUT, INBOARD SIDE KIT FOR 3 FT, 4 FT AND 6 FT COMMSCOPE MICROWAVE ANTENNAS (VSTRUT-P3KIT)	086-000011-002	\$188.00	2	\$376.00			1	\$188.00	1	\$188.00			

EQUIPMENT LIST		PRODUCT CODE		SYSTEM		BLANTON HEIGHTS		LCSO / COURTHOUSE		Spares		Services	
ITEM	DESCRIPTION	PART NUMBER	UNIT PRICE	QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY	PRICE
6.000 Waveguide and accessories													
6.001	ELLIPTICAL WAVEGUIDE STANDARD, 5.925-7.125 GHz, BLACK PE JACKET, PER FOOT (EW63-F)			265	\$2,120.00								
6.002	EW63INSTAL-KIT (ONE KIT PER WAVEGUIDE RUN) (EW63INSTAL-KIT)	AND-EW63INSTAL-KIT	\$8.00	2	\$2,052.00	140	\$1,120.00	125	\$1,000.00				
6.003	WAVEGUIDE CUSHION HANGER, KITS, EW63, 1 HOLE (BAG OF 5 KITS)	018-510063-001	\$1,026.00	17	\$986.00	1	\$1,026.00	1	\$1,026.00				
6.004	ENTRY BOOT, KIT, FOR EW63, 4" 2-HOLE (BAEW632)	VLT-BAEW632	\$58.00	2	\$118.00	9	\$522.00	8	\$464.00				
6.005	HARDWARE-KIT (ONE KIT PER 100FT)	179-530526-001	\$59.00	1	\$59.00	1	\$59.00	1	\$59.00				
			\$561.00	4	\$2,244.00	2	\$1,122.00	2	\$1,122.00				
7.000 Services													
7.100 Factory Services													
7.101	Factory Radio Integration	SVCS-IN-SIPO-RI	\$3,541.00	1	\$3,541.00							1	\$3,541.00
7.102	Factory Vendor Integration	SVCS-IN-SIPO-VI	\$2,265.00	1	\$2,265.00							1	\$2,265.00
7.103	Optional Factory Acceptance Testing	SVCS-IN-SIPO-AT	\$1,887.00										
7.200 Engineering Services													
7.201	Program Management												
7.202	Network Engineering	SVCS-IN-PM-PM	\$5,157.00	1	\$5,157.00							1	\$5,157.00
7.203	Frequency Coordination & Licensing	SVCS-PN-EN-SE	\$3,692.00	1	\$3,692.00							1	\$3,692.00
7.204	Configuration Engineering	SVCS-PN-EN-XE-LA	\$3,555.00	1	\$3,555.00							1	\$3,555.00
7.205	Drafting	SVCS-IN-SS-CEDFT	\$1,926.00	1	\$1,926.00							1	\$1,926.00
		SVCS-IN-SS-CEDFT	\$1,227.00	1	\$1,227.00							1	\$1,227.00
7.300 Field Services													
7.301	Project Engineering-Site Surveys and Reports												
7.302	Project Engineering	SVCS-IN-SS-PE	\$6,419.00	1	\$6,419.00							1	\$6,419.00
7.303	Radio Installation	SVCS-IN-SS-PE	\$6,836.00	1	\$6,836.00							1	\$6,836.00
7.304	Radio Decommissioning	SVCS-IN-IC-FI	\$16,216.00	1	\$16,216.00							1	\$16,216.00
7.305	Antenna Installation	SVCS-IN-IC-FI	\$2,317.00	1	\$2,317.00							1	\$2,317.00
7.306	Antenna Decommissioning	SVCS-IN-IC-AS	\$38,160.00	1	\$38,160.00							1	\$38,160.00
		SVCS-IN-IC-AS	\$3,089.00	1	\$3,089.00							1	\$3,089.00
7.400 Aviat Care													
7.401	Warranty Plus IW - NA&C, 36 months, IRU-600												
7.402	Warranty Plus NW - NA&C, 36 months, IRU-600	SNA-BWXXA1003638	\$324.00	9	\$2,916.00	4	\$1,296.00	4	\$1,296.00	1	\$324.00		
7.403	Warranty Plus NW - NA&C, 48 months, IRU 600	SNA-BNWXA1003638	\$1,166.00	9	\$10,494.00	4	\$4,664.00	4	\$4,664.00	1	\$1,166.00		
		SNA-BNWXA1004838	\$1,555.00	9	\$13,995.00	4	\$6,220.00	4	\$6,220.00	1	\$1,555.00		
7.500 Freight & NASPO Fees													
7.501	Freight												
7.502	NASPO State Fee - OR (2.0%)	FREIGHT	\$9,664.00	1	\$9,664.00							1	\$9,664.00
		WSCA-STATE-FEE		1	Included							1	Included
8.000	Discounts												
8.001	Management Concession	EQ DISCOUNT	-\$52,408.00	2	-\$104,816.00	1	-\$52,408.00	1	-\$52,408.00				
Grand Total (Excluding Applicable Taxes)					\$242,966.00	\$58,575.00		\$58,397.00		\$21,930.00		\$104,064.00	

This sales quotation and any resulting Customer order ("Order") are subject to Aviat Networks standard terms and conditions of sale ("Conditions"), which are available at the following web site:

<https://view.hqtrispot.com/viewer/577366565bbaa063e0ce367>

However, if an Order is issued under or in connection with an applicable master agreement between Aviat and Customer (an "Existing Agreement"), then the Existing Agreement will govern and control the Order. There will be no force or effect given to any different or additional terms contained in any purchase order or other vendor form issued by Customer, even if signed by Aviat Networks after the date of this Order. Customer must reference this Order in any purchase order issued to Aviat Networks.