

**Solicitation Number: RFP #020624****CONTRACT**

This Contract is between Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 (Sourcewell) and NTT America, Inc., One Penn Plaza, Suite 4920, New York NY 10119 (Supplier).

Sourcewell is a State of Minnesota local government unit and service cooperative created under the laws of the State of Minnesota (Minnesota Statutes Section 123A.21) that offers cooperative procurement solutions to government entities. Participation is open to eligible federal, state/province, and municipal governmental entities, higher education, K-12 education, nonprofit, tribal government, and other public entities located in the United States and Canada. Sourcewell issued a public solicitation for Private Wireless Services with Related Solutions from which Supplier was awarded a contract.

Supplier desires to contract with Sourcewell to provide equipment, products, or services to Sourcewell and the entities that access Sourcewell's cooperative purchasing contracts (Participating Entities).

**1. TERM OF CONTRACT**

A. **EFFECTIVE DATE.** This Contract is effective upon the date of the final signature below.

B. **EXPIRATION DATE AND EXTENSION.** This Contract expires May 3, 2028, unless it is cancelled sooner pursuant to Article 22. This Contract allows up to three additional one-year extensions upon the request of Sourcewell and written agreement by Supplier. Sourcewell retains the right to consider additional extensions beyond seven years as required under exceptional circumstances.

C. **SURVIVAL OF TERMS.** Notwithstanding any expiration or termination of this Contract, all payment obligations incurred prior to expiration or termination will survive, as will the following: Articles 11 through 14 survive the expiration or cancellation of this Contract. All other rights will cease upon expiration or termination of this Contract.

## 2. EQUIPMENT, PRODUCTS, OR SERVICES

A. EQUIPMENT, PRODUCTS, OR SERVICES. Supplier will provide the Equipment, Products, or Services as stated in its Proposal submitted under the Solicitation Number listed above. Supplier's Equipment, Products, or Services Proposal (Proposal) is attached and incorporated into this Contract.

All Equipment and Products provided under this Contract must be new and the current model. Supplier may offer close-out or refurbished Equipment or Products if they are clearly indicated in Supplier's product and pricing list. Unless agreed to by the Participating Entities in advance, Equipment or Products must be delivered as operational to the Participating Entity's site.

This Contract offers an indefinite quantity of sales, and while substantial volume is anticipated, sales and sales volume are not guaranteed.

A. WARRANTY. Supplier provides the following warranties related to Products and Services:

### 1. Services Warranty

With the exception of any Third-Party Services (which will be subject to the applicable warranties (if any) set out in the relevant order), Supplier warrants that the Services provided under an Order will be performed:

(a) by suitably experienced individuals in a proper, workmanlike, and professional manner; and

(b) in accordance with the applicable specifications set out in the Order (including any Service Description included or incorporated therein).

The warranty set out in (b) above will be void in the event any failure of the Services is due to any misuse, modification, or other unauthorized changes to the Services (or any other relevant Supplier material used in connection therewith) by Sourcewell or any Participating Entities.

### 2. Product Warranty

Supplier will, to the extent legally and contractually permissible, pass on or assign to Sourcewell or any Participating Entity any third-party warranties (subject to all applicable exclusions and other conditions) offered by the applicable OEM or licensor of any Products provided under an Order.

### 3. Disclaimer

EXCEPT FOR THOSE WARRANTIES EXPRESSLY SET OUT IN THE AGREEMENT, SUPPLIER DISCLAIMS, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAWS, ALL REPRESENTATIONS, WARRANTIES, CONDITIONS AND UNDERTAKINGS (WHETHER EXPRESS, IMPLIED, ARISING UNDER STATUTE OR OTHERWISE) RELATING TO THE PRODUCTS AND SERVICES, INCLUDING ANY WARRANTIES:

(a) OF PERFORMANCE, MERCHANTABILITY, TITLE, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR SATISFACTORY QUALITY; AND

(b) THAT THE PRODUCTS AND SERVICES WILL MEET PARTICIPATING ENTITY'S REQUIREMENTS OR WILL BE TIMELY, UNINTERRUPTED, ERROR FREE OR ENTIRELY SECURE FROM INTRUSION.

ALL SUCH REPRESENTATIONS, WARRANTIES, CONDITIONS, AND UNDERTAKINGS ARE, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAWS, EXCLUDED FROM THE TERMS AND CONDITIONS OF THE AGREEMENT.

EXCEPT FOR THE TERMS AND CONDITIONS SPECIFICALLY SET OUT IN THE AGREEMENT, NO STATEMENTS OR INFORMATION OBTAINED BY SOURCEWELL FROM (OR ON BEHALF OF) SUPPLIER IN CONNECTION WITH THE PRODUCTS AND SERVICES WILL CREATE ANY WARRANTY, CONDITION OR OBLIGATION ON SUPPLIER, AND SOURCEWELL ACKNOWLEDGES AND AGREES THAT IT HAS NOT RELIED ON ANY SUCH STATEMENTS OR INFORMATION.

B. DEALERS, DISTRIBUTORS, AND/OR RESELLERS. Upon Contract execution and throughout the Contract term, Supplier must provide to Sourcewell a current means to validate or authenticate Supplier's authorized dealers, distributors, or resellers relative to the Equipment, Products, and Services offered under this Contract, which will be incorporated into this Contract by reference. It is the Supplier's responsibility to ensure Sourcewell receives the most current information.

### 3. PRICING

All Equipment, Products, or Services under this Contract will be priced at or below the price stated in Supplier's Proposal.

When providing pricing quotes to Participating Entities, all pricing quoted must reflect a Participating Entity's total cost of acquisition. This means that the quoted cost is for delivered Equipment, Products, and Services that are operational for their intended purpose, and includes all costs to the Participating Entity's requested delivery location.

Regardless of the payment method chosen by the Participating Entity, the total cost associated with any purchase option of the Equipment, Products, or Services must always be disclosed in the pricing quote to the applicable Participating Entity at the time of purchase.

A. SHIPPING AND SHIPPING COSTS. All delivered Equipment and Products must be properly packaged. Damaged Equipment and Products may be rejected. If the damage is not readily apparent at the time of delivery, Supplier must permit the Equipment and Products to be returned within a reasonable time at no cost to Sourcewell or its Participating Entities. Participating Entities reserve the right to inspect the Equipment and Products within 30 days after delivery where circumstances or conditions prevent effective inspection of the Equipment and Products at the time of delivery. In the event of the delivery of nonconforming Equipment and Products, the Participating Entity will notify the Supplier as soon as possible and the

Supplier will replace nonconforming Equipment and Products with conforming Equipment and Products that are acceptable to the Participating Entity.

Supplier must arrange for and pay for the return shipment on Equipment and Products that arrive in a defective or inoperable condition.

Sourcwell may declare the Supplier in breach of this Contract if the Supplier intentionally delivers substandard or inferior Equipment or Products.

B. SALES TAX. Each Participating Entity is responsible for supplying the Supplier with valid tax-exemption certification(s). When ordering, a Participating Entity must indicate if it is a tax-exempt entity.

C. HOT LIST PRICING. At any time during this Contract, Supplier may offer a specific selection of Equipment, Products, or Services at discounts greater than those listed in the Contract. When Supplier determines it will offer Hot List Pricing, it must be submitted electronically to Sourcwell in a line-item format. Equipment, Products, or Services may be added or removed from the Hot List at any time through a Sourcwell Price and Product Change Form as defined in Article 4 below.

Hot List program and pricing may also be used to discount and liquidate close-out and discontinued Equipment and Products as long as those close-out and discontinued items are clearly identified as such. Current ordering process and administrative fees apply. Hot List Pricing must be published and made available to all Participating Entities.

#### **4. PRODUCT AND PRICING CHANGE REQUESTS**

Supplier may request Equipment, Product, or Service changes, additions, or deletions at any time. All requests must be made in writing by submitting a signed Sourcwell Price and Product Change Request Form to the assigned Sourcwell Supplier Development Administrator. This approved form is available from the assigned Sourcwell Supplier Development Administrator. At a minimum, the request must:

- Identify the applicable Sourcwell contract number;
- Clearly specify the requested change;
- Provide sufficient detail to justify the requested change;
- Individually list all Equipment, Products, or Services affected by the requested change, along with the requested change (e.g., addition, deletion, price change); and
- Include a complete restatement of pricing documentation in Microsoft Excel with the effective date of the modified pricing, or product addition or deletion. The new pricing restatement must include all Equipment, Products, and Services offered, even for those items where pricing remains unchanged.

A fully executed Sourcewell Price and Product Change Request Form will become an amendment to this Contract and will be incorporated by reference.

## **5. PARTICIPATION, CONTRACT ACCESS, AND PARTICIPATING ENTITY REQUIREMENTS**

A. PARTICIPATION. Sourcewell's cooperative contracts are available and open to public and nonprofit entities across the United States and Canada; such as federal, state/province, municipal, K-12 and higher education, tribal government, and other public entities.

The benefits of this Contract should be available to all Participating Entities that can legally access the Equipment, Products, or Services under this Contract. A Participating Entity's authority to access this Contract is determined through its cooperative purchasing, interlocal, or joint powers laws. Any entity accessing benefits of this Contract will be considered a Service Member of Sourcewell during such time of access. Supplier understands that a Participating Entity's use of this Contract is at the Participating Entity's sole convenience and Participating Entities reserve the right to obtain like Equipment, Products, or Services from any other source.

Supplier is responsible for familiarizing its sales and service forces with Sourcewell contract use eligibility requirements and documentation and will encourage potential participating entities to join Sourcewell. Sourcewell reserves the right to add and remove Participating Entities to its roster during the term of this Contract.

B. PUBLIC FACILITIES. Supplier's employees may be required to perform work at government-owned facilities, including schools. Supplier's employees and agents must conduct themselves in a professional manner while on the premises, and in accordance with Participating Entity policies and procedures, and all applicable laws.

## **6. PARTICIPATING ENTITY USE AND PURCHASING**

A. ORDERS AND PAYMENT. To access the contracted Equipment, Products, or Services under this Contract, a Participating Entity must clearly indicate to Supplier that it intends to access this Contract; however, order flow and procedure will be developed jointly between Sourcewell and Supplier. Typically, a Participating Entity will issue an order directly to Supplier or its authorized subsidiary, distributor, dealer, or reseller. If a Participating Entity issues a purchase order, it may use its own forms, but the purchase order should clearly note the applicable Sourcewell contract number. All Participating Entity orders under this Contract must be issued prior to expiration or cancellation of this Contract; however, Supplier performance, Participating Entity payment obligations, and any applicable warranty periods or other Supplier or Participating Entity obligations may extend beyond the term of this Contract.

Supplier's acceptable forms of payment are included in its attached Proposal. Participating Entities will be solely responsible for payment and Sourcewell will have no liability for any

unpaid invoice of any Participating Entity. Participating Entities will pay, in the currency set out in the Order, all Charges for the Products and Services within 30 days of the invoice date (unless a different period is specified in the Order). All amounts due must be paid in full without any set-off, counterclaim, deduction, or withholding.

B. **ADDITIONAL TERMS AND CONDITIONS/PARTICIPATING ADDENDUM.** Additional terms and conditions to a purchase order, or other required transaction documentation, may be negotiated between a Participating Entity and Supplier, such as job or industry-specific requirements, legal requirements (e.g., affirmative action or immigration status requirements), or specific local policy requirements. Some Participating Entities may require the use of a Participating Addendum, the terms of which will be negotiated directly between the Participating Entity and the Supplier or its authorized dealers, distributors, or resellers, as applicable. Any negotiated additional terms and conditions must never be less favorable to the Participating Entity than what is contained in this Contract.

C. **SPECIALIZED SERVICE REQUIREMENTS.** In the event that the Participating Entity requires service or specialized performance requirements not addressed in this Contract (such as e-commerce specifications, specialized delivery requirements, or other specifications and requirements), the Participating Entity and the Supplier may enter into a separate, standalone agreement, apart from this Contract. Sourcewell, including its agents and employees, will not be made a party to a claim for breach of such agreement.

D. **TERMINATION OF ORDERS.** Participating Entities may terminate an order, in whole or in part, immediately upon notice to Supplier in the event of any of the following events:

1. The Participating Entity fails to receive funding or appropriation from its governing body at levels sufficient to pay for the equipment, products, or services to be purchased; or
2. Federal, state, or provincial laws or regulations prohibit the purchase or change the Participating Entity's requirements.

E. **GOVERNING LAW AND VENUE.** The governing law and venue for any action related to a Participating Entity's order will be determined by the Participating Entity making the purchase.

## **7. CUSTOMER SERVICE**

A. **PRIMARY ACCOUNT REPRESENTATIVE.** Supplier will assign an Account Representative to Sourcewell for this Contract and must provide prompt notice to Sourcewell if that person is changed. The Account Representative will be responsible for:

- Maintenance and management of this Contract;
- Timely response to all Sourcewell and Participating Entity inquiries; and
- Business reviews to Sourcewell and Participating Entities, if applicable.

B. BUSINESS REVIEWS. Supplier must perform a minimum of one business review with Sourcewell per contract year. The business review will cover sales to Participating Entities, pricing and contract terms, administrative fees, sales data reports, performance issues, supply issues, customer issues, and any other necessary information.

## **8. REPORT ON CONTRACT SALES ACTIVITY AND ADMINISTRATIVE FEE PAYMENT**

A. CONTRACT SALES ACTIVITY REPORT. Each calendar quarter, Supplier must provide a contract sales activity report (Report) to the Sourcewell Supplier Development Administrator assigned to this Contract. Reports are due no later than 45 days after the end of each calendar quarter. A Report must be provided regardless of the number or amount of sales during that quarter (i.e., if there are no sales, Supplier must submit a report indicating no sales were made).

The Report must contain the following fields:

- Participating Entity Name (e.g., City of Staples Highway Department);
- Participating Entity Physical Street Address;
- Participating Entity City;
- Participating Entity State/Province;
- Participating Entity Zip/Postal Code;
- Participating Entity Contact Name;
- Participating Entity Contact Email Address;
- Participating Entity Contact Telephone Number;
- Sourcewell Assigned Entity/Participating Entity Number;
- Item Purchased Description;
- Item Purchased Price;
- Sourcewell Administrative Fee Applied; and
- Date Purchase was invoiced/sale was recognized as revenue by Supplier.

B. ADMINISTRATIVE FEE. In consideration for the support and services provided by Sourcewell, the Supplier will pay an administrative fee to Sourcewell on all Equipment, Products, and Services provided to Participating Entities. The Administrative Fee must be included in, and not added to, the pricing. Supplier may not charge Participating Entities more than the contracted price to offset the Administrative Fee.

The Supplier will submit payment to Sourcewell for the percentage of administrative fee stated in the Proposal multiplied by the total sales of all Equipment, Products, and Services purchased by Participating Entities under this Contract during each calendar quarter. Payments should note the Supplier's name and Sourcewell-assigned contract number in the memo; and must be mailed to the address above "Attn: Accounts Receivable" or remitted electronically to

Sourcewell's banking institution per Sourcewell's Finance department instructions. Payments must be received no later than 45 calendar days after the end of each calendar quarter.

Supplier agrees to cooperate with Sourcewell in auditing transactions under this Contract to ensure that the administrative fee is paid on all items purchased under this Contract.

In the event the Supplier is delinquent in any undisputed administrative fees, Sourcewell reserves the right to cancel this Contract and reject any proposal submitted by the Supplier in any subsequent solicitation. In the event this Contract is cancelled by either party prior to the Contract's expiration date, the administrative fee payment will be due no more than 30 days from the cancellation date.

### **9. AUTHORIZED REPRESENTATIVE**

Sourcewell's Authorized Representative is its Chief Procurement Officer.

Supplier's Authorized Representative is the person named in the Supplier's Proposal. If Supplier's Authorized Representative changes at any time during this Contract, Supplier must promptly notify Sourcewell in writing.

### **10. AUDIT, ASSIGNMENT, AMENDMENTS, WAIVER, AND CONTRACT COMPLETE**

A. **AUDIT.** Pursuant to Minnesota Statutes Section 16C.05, subdivision 5, the books, records, documents, and accounting procedures and practices relevant to this Contract are subject to examination by Sourcewell or the Minnesota State Auditor for a minimum of six years from the end of this Contract. This clause extends to Participating Entities as it relates to business conducted by that Participating Entity under this Contract.

B. **ASSIGNMENT.** Neither party may assign or otherwise transfer its rights or obligations under this Contract without the prior written consent of the other party and a fully executed assignment agreement. Such consent will not be unreasonably withheld. Any prohibited assignment will be invalid.

C. **AMENDMENTS.** Any amendment to this Contract must be in writing and will not be effective until it has been duly executed by the parties.

D. **WAIVER.** Failure by either party to take action or assert any right under this Contract will not be deemed a waiver of such right in the event of the continuation or repetition of the circumstances giving rise to such right. Any such waiver must be in writing and signed by the parties.

E. **CONTRACT COMPLETE.** This Contract represents the complete agreement between the parties. No other understanding regarding this Contract, whether written or oral, may be used



to bind either party. For any conflict between the attached Proposal and the terms set out in Articles 1-22 of this Contract, the terms of Articles 1-22 will govern.

F. RELATIONSHIP OF THE PARTIES. The relationship of the parties is one of independent contractors, each free to exercise judgment and discretion with regard to the conduct of their respective businesses. This Contract does not create a partnership, joint venture, or any other relationship such as master-servant, or principal-agent.

## **11. INDEMNITY, HOLD HARMLESS, AND LIMITATION OF LIABILITY**

Supplier must indemnify, defend, save, and hold Sourcewell and its Participating Entities, including their agents and employees, harmless from any third-party claims or causes of action, including attorneys' fees incurred by Sourcewell or its Participating Entities, arising out of or alleging that Sourcewell or Participating Entity's authorized use of any Supplier Material infringes the Intellectual Property Rights of such third-party. This indemnification includes fraud or willful misconduct, injury or death to person(s) or real or tangible property alleged to have been caused by some defect in the Equipment, Products, or Services under this Contract to the extent the Equipment, Product, or Service has been used according to its specifications. Sourcewell's responsibility will be governed by the State of Minnesota's Tort Liability Act (Minnesota Statutes Chapter 466) and other applicable law.

### **A. INDEMNIFICATION PROCEDURES**

A party seeking indemnity under clause 11 must provide the indemnifying party with prompt notice of the claim; reasonably mitigate its losses in connection with the claim; give the indemnifying party sole control of the defense and settlement of the claim; and cooperate with the indemnifying party, at the indemnifying party's expense, in defending or settling the claim.

### **B. AMOUNTS RECOVERABLE**

The indemnification obligations set out in this clause will be limited to the amount of all proved damages and expenses awarded by a court or finally agreed by the indemnifying party in a settlement of the claim (as applicable under the circumstances), in addition to the reasonable costs incurred for the indemnified party's cooperation, as described above.

### **C. LIMITATION OF LIABILITY**

To the extent permitted by Applicable Laws (and subject to any specific exceptions set out in the Agreement), neither party will, in connection with any claim arising under or in relation to the Agreement, be liable (in contract, tort (delict), or otherwise) for any indirect, incidental, consequential, special, punitive, or exemplary damages; or for any loss of use, business interruption loss, loss or corruption of data, loss of anticipated or actual profits, revenue, income, or savings, or loss of goodwill, reputation, bargain, or business opportunities, each of which the parties agree are not direct damages in terms of the Agreement.

To the fullest extent permitted by Applicable Laws (and subject to any specific exceptions set out in the Agreement), each party's total aggregate liability to the other for all causes of action or claims (whether in contract, tort (delict), or otherwise) arising out of or related to the Agreement will be limited on a per Contract basis to two (2) times the Charges paid or payable by Participating Entity under the relevant Order in the relevant Contract Year in which the events, acts, or omissions giving rise to the causes of action or claims first occurred. The damages and liabilities limited by above clauses apply to liability for negligence; even if a party has been advised of the possibility of the damages in question or even if such damages were foreseeable; and even if a party's remedies fail of their essential purpose.

#### D. EXCEPTIONS

The damage exclusions set out in paragraph 1 above will not apply to Sourcewell or Participating Entity's breach of any Supplier provided restrictions on use and Participating Entity's obligation to pay.

The liability caps set out above will not apply to:

- Party's indemnification obligations set out earlier in this clause 11, which will be limited as more specifically set out in this clause 11 above.
- Sourcewell or Participating Entity's breach of any Supplier provided restrictions on use and Participating Entity's obligations to pay.

### 12. GOVERNMENT DATA PRACTICES

Supplier and Sourcewell must comply with the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, as it applies to all data provided by or provided to Sourcewell under this Contract and as it applies to all data created, collected, received, maintained, or disseminated by the Supplier under this Contract.

### 13. INTELLECTUAL PROPERTY, PUBLICITY, MARKETING, AND ENDORSEMENT

#### A. INTELLECTUAL PROPERTY

1. *Grant of License*. During the term of this Contract:
  - a. Sourcewell grants to Supplier a royalty-free, worldwide, non-exclusive right and license to use the trademark(s) provided to Supplier by Sourcewell in advertising and promotional materials for the purpose of marketing Sourcewell's relationship with Supplier.
  - b. Supplier grants to Sourcewell a royalty-free, worldwide, non-exclusive right and license to use Supplier's trademarks in advertising and promotional materials for the purpose of marketing Supplier's relationship with Sourcewell.
2. *Limited Right of Sublicense*. The right and license granted herein includes a limited right of each party to grant sublicenses to their respective subsidiaries, distributors, dealers, resellers, marketing representatives, and agents (collectively "Permitted Sublicensees") in

advertising and promotional materials for the purpose of marketing the Parties' relationship to Participating Entities. Any sublicense granted will be subject to the terms and conditions of this Article. Each party will be responsible for any breach of this Article by any of their respective sublicensees.

*3. Use; Quality Control.*

- a. Neither party may alter the other party's trademarks from the form provided and must comply with removal requests as to specific uses of its trademarks or logos.
- b. Each party agrees to use, and to cause its Permitted Sublicensees to use, the other party's trademarks only in good faith and in a dignified manner consistent with such party's use of the trademarks. Upon written notice to the breaching party, the breaching party has 30 days of the date of the written notice to cure the breach or the license will be terminated.

*4. Termination.* Upon the termination of this Contract for any reason, each party, including Permitted Sublicensees, will have 30 days to remove all Trademarks from signage, websites, and the like bearing the other party's name or logo (excepting Sourcewell's pre-printed catalog of suppliers which may be used until the next printing). Supplier must return all marketing and promotional materials, including signage, provided by Sourcewell, or dispose of it according to Sourcewell's written directions.

B. **PUBLICITY.** Any publicity regarding the subject matter of this Contract must not be released without prior written approval from the Authorized Representatives. Publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Supplier individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from this Contract.

C. **MARKETING.** Any direct advertising, marketing, or offers with Participating Entities must be approved by Sourcewell. Send all approval requests to the Sourcewell Supplier Development Administrator assigned to this Contract.

D. **ENDORSEMENT.** The Supplier must not claim that Sourcewell endorses its Equipment, Products, or Services.

E. Other than as specified in the applicable Order, all rights, title, and interest (including Intellectual Property Rights) in any:  
(a) Supplier Material remains vested in Supplier or, in the case of Products or Third-Party Services, the relevant third-party OEM, licensor, or service provider (as applicable); and  
(b) Sourcewell or Participating Entity Material remains vested in Sourcewell or Participating Entity.

#### **14. GOVERNING LAW, JURISDICTION, AND VENUE**

The substantive and procedural laws of the State of Minnesota will govern this Contract. Venue for all legal proceedings arising out of this Contract, or its breach, must be in the appropriate state court in Todd County, Minnesota or federal court in Fergus Falls, Minnesota.

#### **15. FORCE MAJEURE**

Neither party to this Contract will be held responsible for delay or default caused by acts of God or other conditions that are beyond that party's reasonable control. A party defaulting under this provision must provide the other party prompt written notice of the default.

#### **16. SEVERABILITY**

If any provision of this Contract is found by a court of competent jurisdiction to be illegal, unenforceable, or void then both parties will be relieved from all obligations arising from that provision. If the remainder of this Contract is capable of being performed, it will not be affected by such determination or finding and must be fully performed.

#### **17. PERFORMANCE, DEFAULT, AND REMEDIES**

A. **PERFORMANCE.** During the term of this Contract, the parties will monitor performance and address unresolved contract issues as follows:

1. *Notification.* The parties must promptly notify each other of any known dispute and work in good faith to resolve such dispute within a reasonable period of time. If necessary, Sourcewell and the Supplier will jointly develop a short briefing document that describes the issue(s), relevant impact, and positions of both parties.
2. *Escalation.* If parties are unable to resolve the issue in a timely manner, as specified above, either Sourcewell or Supplier may escalate the resolution of the issue to a higher level of management. The Supplier will have 30 calendar days to cure an outstanding issue.
3. *Performance while Dispute is Pending.* Notwithstanding the existence of a dispute, the Supplier must continue without delay to carry out all of its responsibilities under the Contract that are not affected by the dispute. If the Supplier fails to continue without delay to perform its responsibilities under the Contract, in the accomplishment of all undisputed work, the Supplier will bear any additional costs incurred by Sourcewell and/or its Participating Entities as a result of such failure to proceed.

B. **DEFAULT AND REMEDIES.** Either of the following constitutes cause to declare this Contract, or any Participating Entity order under this Contract, in default:

1. Nonperformance of contractual requirements, or
2. A material breach of any term or condition of this Contract.

The party claiming default must provide written notice of the default, with 30 calendar days to cure the default. Time allowed for cure will not diminish or eliminate any liability for liquidated or other damages. If the default remains after the opportunity for cure, the non-defaulting party may:

- Exercise any remedy provided by law or equity, or
- Terminate the Contract or any portion thereof, including any orders issued against the Contract.

## 18. INSURANCE

A. REQUIREMENTS. At its own expense, Supplier must maintain insurance policy(ies) in effect at all times during the performance of this Contract with insurance company(ies) licensed or authorized to do business in the State of Minnesota having an "AM BEST" rating of A- or better, with coverage and limits of insurance not less than the following:

1. *Workers' Compensation and Employer's Liability.*

Workers' Compensation: As required by any applicable law or regulation.

Employer's Liability Insurance: must be provided in amounts not less than listed below:

Minimum limits:

\$500,000 each accident for bodily injury by accident

\$500,000 policy limit for bodily injury by disease

\$500,000 each employee for bodily injury by disease

2. *Commercial General Liability Insurance.* Supplier will maintain insurance covering its operations, with coverage on an occurrence basis, and must be subject to terms no less broad than the Insurance Services Office ("ISO") Commercial General Liability Form CG0001 (2001 or newer edition), or equivalent. At a minimum, coverage must include liability arising from premises, operations, bodily injury and property damage, independent contractors, products-completed operations including construction defect, contractual liability, blanket contractual liability, and personal injury and advertising injury. All required limits, terms and conditions of coverage must be maintained during the term of this Contract.

Minimum Limits:

\$1,000,000 each occurrence Bodily Injury and Property Damage

\$1,000,000 Personal and Advertising Injury

\$2,000,000 aggregate for products liability-completed operations

\$2,000,000 general aggregate

3. *Commercial Automobile Liability Insurance.* During the term of this Contract, Supplier will maintain insurance covering all owned, hired, and non-owned automobiles in limits of liability not less than indicated below. The coverage must be subject to terms

no less broad than ISO Business Auto Coverage Form CA 0001 (2010 edition or newer), or equivalent.

Minimum Limits:

\$1,000,000 each accident, combined single limit

4. *Umbrella Insurance*. During the term of this Contract, Supplier will maintain umbrella coverage over Employer's Liability, Commercial General Liability, and Commercial Automobile.

Minimum Limits:

\$2,000,000

5. *Professional/Technical, Errors and Omissions, and/or Miscellaneous Professional Liability*. During the term of this Contract, Supplier will maintain coverage for all claims the Supplier may become legally obligated to pay resulting from any actual or alleged negligent act, error, or omission related to Supplier's professional services required under this Contract.

Minimum Limits:

\$2,000,000 per claim or event

\$2,000,000 – annual aggregate

6. *Network Security and Privacy Liability Insurance*. During the term of this Contract, Supplier will maintain coverage for network security and privacy liability. The coverage may be endorsed on another form of liability coverage or written on a standalone policy. The insurance must cover claims which may arise from failure of Supplier's security resulting in, but not limited to, computer attacks, unauthorized access, disclosure of not public data – including but not limited to, confidential or private information, transmission of a computer virus, or denial of service.

Minimum limits:

\$2,000,000 per occurrence

\$2,000,000 annual aggregate

Failure of Supplier to maintain the required insurance will constitute a material breach entitling Sourcewell to immediately terminate this Contract for default.

B. CERTIFICATES OF INSURANCE. Prior to commencing under this Contract, Supplier must furnish to Sourcewell a certificate of insurance, as evidence of the insurance required under this Contract. Upon expiration of the policy(ies), renewal certificates must be mailed to Sourcewell, 202 12th Street Northeast, P.O. Box 219, Staples, MN 56479 or sent to the Sourcewell Supplier Development Administrator assigned to this Contract. The certificates must be signed by a person authorized by the insurer(s) to bind coverage on their behalf.

Failure to request certificates of insurance by Sourcewell, or failure of Supplier to provide certificates of insurance, in no way limits or relieves Supplier of its duties and responsibilities in this Contract.

C. **ADDITIONAL INSURED ENDORSEMENT AND PRIMARY AND NON-CONTRIBUTORY INSURANCE CLAUSE.** Supplier agrees to include Sourcewell and its Participating Entities, including their officers, agents, and employees, as an additional insured under the Supplier's commercial general liability insurance policy with respect to liability arising out of activities, "operations," or "work" performed by or on behalf of Supplier, and products and completed operations of Supplier. The policy provision(s) or blanket endorsement(s) must further provide that coverage is primary and not excess over or contributory with any other valid, applicable, and collectible insurance or self-insurance in force for the additional insureds.

D. **WAIVER OF SUBROGATION.** Supplier waives and must require (by endorsement or otherwise) its insurers to waive subrogation rights under the Workers' Compensation, Commercial General Liability Insurance, Commercial Automobile Liability Insurance and Umbrella Insurance policies against Sourcewell and other additional insureds for losses paid under the insurance policies required by this Contract or other insurance applicable to the Supplier or its subcontractors. The waiver must apply to all deductibles and/or self-insured retentions applicable to the required or any other insurance maintained by the Supplier or its subcontractors. Where permitted by law, Supplier must require similar written express waivers of subrogation and insurance clauses from each of its subcontractors.

E. **UMBRELLA/EXCESS LIABILITY/SELF-INSURED RETENTION.** The limits required by this Contract can be met by either providing a primary policy or in combination with umbrella/excess liability policy(ies), or self-insured retention.

## **19. COMPLIANCE**

A. **LAWS AND REGULATIONS.** All Equipment, Products, or Services provided under this Contract must comply fully with applicable federal laws and regulations, and with the laws in the states and provinces in which the Equipment, Products, or Services are sold.

B. **LICENSES.** Supplier must maintain a valid and current status on all required federal, state/provincial, and local licenses, bonds, and permits required for the operation of the business that the Supplier conducts with Sourcewell and Participating Entities.

## **20. BANKRUPTCY, DEBARMENT, OR SUSPENSION CERTIFICATION**

Supplier certifies and warrants that it is not in bankruptcy or that it has previously disclosed in writing certain information to Sourcewell related to bankruptcy actions. If at any time during this Contract Supplier declares bankruptcy, Supplier must immediately notify Sourcewell in writing.

Supplier certifies and warrants that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated by the State of Minnesota; the United States federal government or the Canadian government, as applicable; or any Participating Entity. Supplier certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this Contract. Supplier further warrants that it will provide immediate written notice to Sourcwell if this certification changes at any time.

## **21. PROVISIONS FOR NON-UNITED STATES FEDERAL ENTITY PROCUREMENTS UNDER UNITED STATES FEDERAL AWARDS OR OTHER AWARDS**

Participating Entities that use United States federal grant or FEMA funds to purchase goods or services from this Contract may be subject to additional requirements including the procurement standards of the Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards, 2 C.F.R. § 200. Participating Entities may have additional requirements based on specific funding source terms or conditions. Within this Article, all references to “federal” should be interpreted to mean the United States federal government. The following list only applies when a Participating Entity accesses Supplier’s Equipment, Products, or Services with United States federal funds.

A. **EQUAL EMPLOYMENT OPPORTUNITY.** Except as otherwise provided under 41 C.F.R. § 60, all contracts that meet the definition of “federally assisted construction contract” in 41 C.F.R. § 60-1.3 must include the equal opportunity clause provided under 41 C.F.R. §60-1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 C.F.R. §, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 C.F.R. § 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.” The equal opportunity clause is incorporated herein by reference.

B. **DAVIS-BACON ACT, AS AMENDED (40 U.S.C. § 3141-3148).** When required by federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. § 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 C.F.R. § 5, “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the



wage determination. The non-federal entity must report all suspected or reported violations to the federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. § 3145), as supplemented by Department of Labor regulations (29 C.F.R. § 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-federal entity must report all suspected or reported violations to the federal awarding agency. Supplier must be in compliance with all applicable Davis-Bacon Act provisions.

C. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT (40 U.S.C. § 3701-3708). Where applicable, all contracts awarded by the non-federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. §§ 3702 and 3704, as supplemented by Department of Labor regulations (29 C.F.R. § 5). Under 40 U.S.C. § 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence. This provision is hereby incorporated by reference into this Contract. Supplier certifies that during the term of an award for all contracts by Sourcewell resulting from this procurement process, Supplier must comply with applicable requirements as referenced above.

D. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT. If the federal award meets the definition of "funding agreement" under 37 C.F.R. § 401.2(a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 C.F.R. § 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency. Supplier certifies that during the term of an award for all contracts by Sourcewell resulting from this procurement process, Supplier must comply with applicable requirements as referenced above.

E. CLEAN AIR ACT (42 U.S.C. § 7401-7671Q.) AND THE FEDERAL WATER POLLUTION CONTROL ACT (33 U.S.C. § 1251-1387). Contracts and subgrants of amounts in excess of \$150,000 require the non-federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. § 7401- 7671q) and the Federal Water Pollution

Control Act as amended (33 U.S.C. § 1251- 1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). Supplier certifies that during the term of this Contract will comply with applicable requirements as referenced above.

F. DEBARMENT AND SUSPENSION (EXECUTIVE ORDERS 12549 AND 12689). A contract award (see 2 C.F.R. § 180.220) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 C.F.R. §180 that implement Executive Orders 12549 (3 C.F.R. § 1986 Comp., p. 189) and 12689 (3 C.F.R. § 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. Supplier certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any federal department or agency.

G. BYRD ANTI-LOBBYING AMENDMENT, AS AMENDED (31 U.S.C. § 1352). Suppliers must file any required certifications. Suppliers must not have used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Suppliers must disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the non-federal award. Suppliers must file all certifications and disclosures required by, and otherwise comply with, the Byrd Anti-Lobbying Amendment (31 U.S.C. § 1352).

H. RECORD RETENTION REQUIREMENTS. To the extent applicable, Supplier must comply with the record retention requirements detailed in 2 C.F.R. § 200.333. The Supplier further certifies that it will retain all records as required by 2 C.F.R. § 200.333 for a period of 3 years after grantees or subgrantees submit final expenditure reports or quarterly or annual financial reports, as applicable, and all other pending matters are closed.

I. ENERGY POLICY AND CONSERVATION ACT COMPLIANCE. To the extent applicable, Supplier must comply with the mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

J. BUY AMERICAN PROVISIONS COMPLIANCE. To the extent applicable, Supplier must comply with all applicable provisions of the Buy American Act. Purchases made in accordance with the Buy American Act must follow the applicable procurement rules calling for free and open competition.

K. ACCESS TO RECORDS (2 C.F.R. § 200.336). Supplier agrees that duly authorized representatives of a federal agency must have access to any books, documents, papers and records of Supplier that are directly pertinent to Supplier's discharge of its obligations under this Contract for the purpose of making audits, examinations, excerpts, and transcriptions. The right also includes timely and reasonable access to Supplier's personnel for the purpose of interview and discussion relating to such documents.

L. PROCUREMENT OF RECOVERED MATERIALS (2 C.F.R. § 200.322). A non-federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. § 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

M. FEDERAL SEAL(S), LOGOS, AND FLAGS. The Supplier cannot use the seal(s), logos, crests, or reproductions of flags or likenesses of Federal agency officials without specific pre-approval.

N. NO OBLIGATION BY FEDERAL GOVERNMENT. The U.S. federal government is not a party to this Contract or any purchase by a Participating Entity and is not subject to any obligations or liabilities to the Participating Entity, Supplier, or any other party pertaining to any matter resulting from the Contract or any purchase by an authorized user.

O. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS. The Contractor acknowledges that 31 U.S.C. 38 (Administrative Remedies for False Claims and Statements) applies to the Supplier's actions pertaining to this Contract or any purchase by a Participating Entity.

P. FEDERAL DEBT. The Supplier certifies that it is non-delinquent in its repayment of any federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowance, and benefit overpayments.

Q. CONFLICTS OF INTEREST. The Supplier must notify the U.S. Office of General Services, Sourcewell, and Participating Entity as soon as possible if this Contract or any aspect related to the anticipated work under this Contract raises an actual or potential conflict of interest (as described in 2 C.F.R. Part 200). The Supplier must explain the actual or potential conflict in writing in sufficient detail so that the U.S. Office of General Services, Sourcewell, and Participating Entity are able to assess the actual or potential conflict; and provide any additional information as necessary or requested.

R. U.S. EXECUTIVE ORDER 13224. The Supplier, and its subcontractors, must comply with U.S. Executive Order 13224 and U.S. Laws that prohibit transactions with and provision of resources and support to individuals and organizations associated with terrorism.

S. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT. To the extent applicable, Supplier certifies that during the term of this Contract it will comply with applicable requirements of 2 C.F.R. § 200.216.

T. DOMESTIC PREFERENCES FOR PROCUREMENTS. To the extent applicable, Supplier certifies that during the term of this Contract will comply with applicable requirements of 2 C.F.R. § 200.322.

**22. CANCELLATION**

Sourcewell or Supplier may cancel this Contract at any time, with or without cause, upon 60 days' written notice to the other party. However, Sourcewell may cancel this Contract immediately upon discovery of a material defect in any certification made in Supplier's Proposal. Cancellation of this Contract does not relieve either party of financial, product, or service obligations incurred or accrued prior to cancellation.

**Sourcewell**

DocuSigned by:  
*Jeremy Schwartz*  
By: C0FD2A139D06489...  
Jeremy Schwartz  
Title: Chief Procurement Officer

Date: 6/25/2024 | 10:25 AM CDT

**NTT America, Inc.**

DocuSigned by:  
*Peter Cutts*  
By: C67F8ACB78C645C...  
Peter Cutts  
Title: SVP Digital Advisory and Services Delivery

Date: 6/25/2024 | 8:09 AM PDT

# RFP 020624 - Private Wireless Services with Related Solutions

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## Vendor Details

Company Name: NTT Ltd Group Services  
Does your company conduct business under any other name? If yes, please state: NTT DATA Inc.  
Address: 1 King William Street  
London, England EC4N 7AR  
Contact: Gary Wood  
Email: gary.wood@global.ntt  
Phone: 402-630-3500  
HST#: 3191623091

## Submission Details

Created On: Wednesday December 20, 2023 11:18:30  
Submitted On: Tuesday February 20, 2024 12:41:11  
Submitted By: Gary Wood  
Email: gary.wood@global.ntt  
Transaction #: 94f23837-7356-41e1-802e-b3e9629ed165  
Submitter's IP Address: 136.226.122.110

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## Specifications

**Table 1: Proposer Identity & Authorized Representatives**

**General Instructions** (applies to all Tables) Sourcewell prefers a brief but thorough response to each question. Do not merely attach additional documents to your response without also providing a substantive response. Do not leave answers blank; respond "N/A" if the question does not apply to you (preferably with an explanation).

Line Item	Question	Response *
1	Proposer Legal Name (one legal entity only): (In the event of award, will execute the resulting contract as "Supplier")	NTT DATA Inc
2	Identify all subsidiary entities of the Proposer whose equipment, products, or services are included in the Proposal.	Not applicable
3	Identify all applicable assumed names or DBA names of the Proposer or Proposer's subsidiaries in Line 1 or Line 2 above.	Not Applicable
4	Provide your CAGE code or Unique Entity Identifier (SAM):	SAM EIN #: L11ANJNNMJ44
5	Proposer Physical Address:	United States: NTT DATA Inc - U.S. Headquarters Office 7950 Legacy Drive, 11th Floor Plano, Texas 75024-4110 Phone: +1 949.528.5692  Canada: NTT DATA Inc - Canada Head Office 251 Attwell Drive Toronto, Ontario. M9W 7G2 Phone: +1 416-503-1800
6	Proposer website address (or addresses):	<a href="https://services.global.ntt/en-us/services-and-products/networks/private-5g">https://services.global.ntt/en-us/services-and-products/networks/private-5g</a>
7	Proposer's Authorized Representative (name, title, address, email address & phone) (The representative must have authority to sign the "Proposer's Assurance of Compliance" on behalf of the Proposer and, in the event of award, will be expected to execute the resulting contract):	Shahid Ahmed Chicago, IL (Remote) EVP, New Ventures & Innovation shahid.ahmed@global.ntt +1 312 208 9562"
8	Proposer's primary contact for this proposal (name, title, address, email address & phone):	Gary Wood Head of Global Business Development - Private 5G Omaha, NE (Remote) gary.wood@global.ntt +1 402 630 3500"
9	Proposer's other contacts for this proposal, if any (name, title, address, email address & phone):	Edward Zapata Client Manager, Americas Public Sector Los Angeles, CA (Remote) edward.zapata@global.ntt 818.389.3032  Ammar Ammar Senior Client Partner, Enterprise 5G Products & Services Toronto, Ontario (Remote) ammar.ammar@global.ntt +1 416 369 4267"

**Table 2: Company Information and Financial Strength**

Line Item	Question	Response *

10	Provide a brief history of your company, including your company's core values, business philosophy, and industry longevity related to the requested equipment, products or services.	<p>History</p> <p>Ever since the launch of the Nippon Telegraph and Telephone Public Corporation in 1952, NTT has created a variety of technologies and proposed new ways of using these in response to the demands of the times. NTT's proud history as a company is chronicled in this historical timeline, showing the evolution of both the company, its products and services, and its many innovations over the last 70+ years of NTT's history. <a href="https://group.ntt/en/group/history/">https://group.ntt/en/group/history/</a>.</p> <p>Core Values and Business Philosophy</p> <p>NTT Group has three basic values: Connect, Trust, and Integrity. At NTT, we're purpose-led and performance-driven and pride ourselves on our reputation for conducting business in an ethical, open, and honest way, in line with our core values and commitment to high standards. Our values and Code of Conduct and Business Ethics ('our Code') guide our actions in conducting business and distinguishes us in the eyes of our people, clients, and communities.</p> <p>NTT Mission Statement</p> <p>NTT Group aims to solve social issues together with its partners through business activities.</p> <p>NTT Vision Statement</p> <p>While supporting customer transformation (digital transformation), we will promote transformation of the NTT Group itself. NTT believes in using technology to enable a better, more connected future for all. NTT also has a set of core values that include customer focus, communication, teamwork, integrity and professionalism, innovation and life-long learning, people focus, diversity, and responsibility."</p>
11	What are your company's expectations in the event of an award?	<p>Should Sourcewell select NTT as a provider of private wireless network solutions to be made available through the its purchasing program and platform, NTT would immediately engage its relationships within the Airports Council International organization and key airport industry consultants to construct and execute a marketing campaign to make member airports aware of the Sourcewell private wireless contract template as a critical resource for accelerating the digital transformation of their operational environments. NTT would also engage Sourcewell to look at other prospective commercial industry sectors that NTT is targeting with private wireless, including the very scaled sectors of manufacturing and logistics.</p>
12	Demonstrate your financial strength and stability with meaningful data. This could include such items as financial statements, SEC filings, credit and bond ratings, letters of credit, and detailed reference letters. Upload supporting documents (as applicable) in the document upload section of your response.	<p>With ~\$112 billion in annual revenues, over \$3.6 billion in annual R&amp;D investment and more than 330,000 employees worldwide, NTT Group stands at No. 38 in the Fortune global 500 and has been in business for over 150 years. NTT Group is both the 4th largest telecom company in the world and also stands among the world's top 10 IT services companies. Based in Tokyo, Japan, the NTT Group also serves 75% of Fortune 100 companies.</p> <p>As the part of NTT Group that would deliver the Private Wireless solution to Sourcewell users, NTT DATA, Inc is a \$30 billion company operating in more than 50 countries and operates the 5th largest IP backbone network in the world.</p> <p>A financially stable and viable organization with a AA+ credit rating, NTT has adequate cash reserves to support our business during adverse situations. We align our expenses with our revenues and maintain a sound balance sheet with ample working capital on hand to invest in the continued success of our clients.</p> <p>Our financials are publicly listed and can be found in the below link: <a href="https://www.nttdata.com/global/en/investors/library/earnings">https://www.nttdata.com/global/en/investors/library/earnings</a></p>

13	What is your US market share for the solutions that you are proposing?	<p>The Private Wireless Network/Private 5G market is still early-stage and market share data is, as a result, highly dynamic and not substantially documented. However, NTT is broadly recognized by industry analysts as a global leader in P5G. NTT's Private 5G solution and services capabilities have received awards and recognition by multiple analyst and research entities.</p> <p>Omdia recognizes NTT DATA as a Champion and Leader in its Market Radar for US Private 5G Service Providers research report for 2023-2024:</p> <p><a href="https://omdia.tech.informa.com/om033340/omdia-market-radar-us-private-5g-service-providers-202324">https://omdia.tech.informa.com/om033340/omdia-market-radar-us-private-5g-service-providers-202324</a></p> <p>NTT DATA was awarded a Leader position in Everest Group's 5G Engineering Services PEAK Matrix® 2023 Report -- and was also recognized by Everest as a Star Performer for achieving rapid year-over-year improvement in the Market Impact and Vision and Capability segments of the latest report:</p> <p><a href="https://www.nttdata.com/global/en/news/press-release/2023/july/ntt-data-awarded-a-leader-position-in-everest-groups-5g-engineering-services?sf179663343=1">https://www.nttdata.com/global/en/news/press-release/2023/july/ntt-data-awarded-a-leader-position-in-everest-groups-5g-engineering-services?sf179663343=1</a></p> <p>For more Industry Awards details please refer to response to Line item.19</p>
14	What is your Canadian market share for the solutions that you are proposing?	<p>The Private Wireless Network/Private 5G market is still early-stage and market share data is, as a result, highly dynamic and not substantially documented. However, NTT is broadly recognized by industry analysts as a global leader in P5G. NTT's Private 5G solution and services capabilities have received awards and recognition by multiple analyst and research entities.</p> <p>Omdia recognizes NTT DATA as a Champion and Leader in its Market Radar for US Private 5G Service Providers research report for 2023-2024:</p> <p><a href="https://omdia.tech.informa.com/om033340/omdia-market-radar-us-private-5g-service-providers-202324">https://omdia.tech.informa.com/om033340/omdia-market-radar-us-private-5g-service-providers-202324</a></p> <p>NTT DATA was awarded a Leader position in Everest Group's 5G Engineering Services PEAK Matrix® 2023 Report -- and was also recognized by Everest as a Star Performer for achieving rapid year-over-year improvement in the Market Impact and Vision and Capability segments of the latest report:</p> <p><a href="https://www.nttdata.com/global/en/news/press-release/2023/july/ntt-data-awarded-a-leader-position-in-everest-groups-5g-engineering-services?sf179663343=1">https://www.nttdata.com/global/en/news/press-release/2023/july/ntt-data-awarded-a-leader-position-in-everest-groups-5g-engineering-services?sf179663343=1</a></p> <p>For more Industry Awards details please refer to response to Line Item.19</p>
15	Has your business ever petitioned for bankruptcy protection? If so, explain in detail.	No, NTT DATA has never filed for bankruptcy or bankruptcy protection.
16	<p>How is your organization best described: is it a manufacturer, a distributor/dealer/reseller, or a service provider? Answer whichever question (either a) or b) just below) best applies to your organization.</p> <p>a) If your company is best described as a distributor/dealer/reseller (or similar entity), provide your written authorization to act as a distributor/dealer/reseller for the manufacturer of the products proposed in this RFP. If applicable, is your dealer network independent or company owned?</p> <p>b) If your company is best described as a manufacturer or service provider, describe your relationship with your sales and service force and with your dealer network in delivering the products and services proposed in this RFP. Are these individuals your employees, or the employees of a third party?</p>	<p>As a global system integrator, NTT functions as both a Private 5G service provider and, in the process of integrating the underlying solution of its Private 5G managed service, it also resells the HW and SW technologies that comprise its solution. However, in the context of the question posed here by Sourcewell, NTT is best characterized as a service provider.</p> <p>Response to Sec.16(a) While best characterized as a service provider, NTT does resell HW and SW to end clients when those clients choose to capitalize and take title to the assets that comprise the Private 5G network itself. NTT sells these HW and SW products under global reseller agreements with suppliers such as Cisco and Nokia, which are the technologies being proposed in this RFP response.</p> <p>Response to Sec 16(b) For clients who prefer the option of a fully OpEx-based commercial model (what NTT calls Network-as-a-Service or NaaS), NTT integrates all aspects of design, deployment, management and support of the network into a holistic managed service that is offered to the client for a single, fixed, monthly fee. In this model, NTT acts as the managed service provider and is responsible for all aspects of the service delivery. NTT employs hundreds of Client Executives, Client Partners (specialists), Client Delivery Executives, Project Managers, Sales Engineers and Pre-Sales Solution Architects across the U.S. and Canada who provide support to clients through every phase of implementation and management of the on-going service. Through its Global Operations Center in the U.S., NTT also provides all aspects of network monitoring, management and Day 2 support to ensure that network availability SLAs are met.</p>



17	If applicable, provide a detailed explanation outlining the licenses and certifications that are both required to be held, and actually held, by your organization (including third parties and subcontractors that you use) in pursuit of the business contemplated by this RFP.	Both field technicians and support personnel are required to complete certification training from the hardware and software vendors whose products are utilized in NTT's Private 5G solution. In addition, pursuant to FCC Part 96 rules, the majority of CBRS radio transceivers or Citizen's Broadband Service Devices (CBSDs) must be installed by a Certified Professional Installer (CPI) in order to lawfully operate within the designated spectrum of CBRS. All NTT employees and contractors hold the requisite vendor and CBRS CPI certifications.	*
18	Provide all "Suspension or Debarment" information that has applied to your organization during the past ten years.	No. NTT DATA has never been suspended or debarred.	*

**Table 3: Industry Recognition & Marketplace Success**

Line Item	Question	Response *
19	Describe any relevant industry awards or recognition that your company has received in the past five years	<p>Omdia recognizes NTT DATA's Advanced Capabilities in the Market Radar for US Private 5G Service Providers, 2023-24: NTT DATA was recognized as the only service provider in US for having 'Advanced Capabilities' across three areas: portfolio and solutions, partner strategy and ecosystem &amp; adjacent enterprise services.</p> <p>Everest Group recognized NTT DATA as a Leader in the 5G Engineering Services PEAK Matrix® Assessment 2023 NTT DATA was recognized for its ability to bring advanced technologies, skillsets, and ecosystem resources to customer use cases in order to help enterprise companies utilize the full potential of 5G technology.</p> <p>Frost &amp; Sullivan 2023 Best Practices New Product Innovation Award NTT DATA received Frost &amp; Sullivan's 2023 Best Practices New Product Innovation Award in the global edge as a service industry. Frost &amp; Sullivan recognized NTT DATA for its advancement, best practices, and vision to create new products, solutions and services that meet customers evolving needs.</p> <p>Kaleido Intelligence recognizes NTT DATA as Champion Vendor for Private Network Management 2023 NTT DATA's private network solution was noted for its capabilities for solution-driven deployments with multiple connectivity technologies as well as its orchestrator model that allows for simple integration of private cellular networks within other networks.</p> <p>Kaleido Intelligence recognizes NTT DATA as #1 Champion for Private Network Connectivity Enablement 2023 NTT DATA was recognized for its solid framework which offers a number of connectivity options including public/private roaming capabilities, alongside a very simple mechanism for integrating with a variety of non-cellular technologies.</p> <p>NTT DATA is named a Leader in the 2023 Gartner® Magic Quadrant™ for Managed Network Services This acknowledgment is based on NTT DATA's "Completeness of Vision" and "Ability to Execute" among 17 managed network service providers. Additionally, NTT DATA has achieved the same recognition in the 2023 Gartner Magic Quadrant for Network Services, Global, marking the 10th consecutive year it has been named a Leader in this category.</p>
20	What percentage of your sales are to the governmental sector in the past three years	<p>NTT DATA's client base is spread among various industries and small, mid-size and large customers in the United States and globally. The relative and approximate percentage of revenues coming from each industry are as follows:</p> <ul style="list-style-type: none"> <li>- Financial and Insurance: 33 percent</li> <li>- Manufacturing and Transportation: 25 percent</li> <li>- Healthcare and Life Sciences: 17 percent</li> <li>- Public Sector: 20 percent</li> <li>- Consumer and Retail: 5 percent</li> </ul>
21	What percentage of your sales are to the education sector in the past three years	Education Sector -16%
22	List any state, provincial, or cooperative purchasing contracts that you hold. What is the annual sales volume for each of these contracts over the past three years?	<p>FOCUS Contract 2022-\$8,925,989 2021-\$1,289,489 2020-\$623, 439</p> <p>NASPO-CA 2022-\$205,231 2021-\$183,293 2020-\$102,329</p> <p>NCPA 2022-\$1,112,327</p>
23	List any GSA contracts or Standing Offers and Supply Arrangements (SOSA) that you hold. What is the annual sales volume for each of these contracts over the past three years?	<p>NTT Data: 1. GSA-MAS (NDFH): GS-35F-0526V 2. GSA-MAS (NDFG): 47QRAA19D0069 3. GSA-MAS (NDFS): GS-35F518GA. Due to confidentiality rules, NTT is unable to disclose the annual sales volume for each contract for the past three years.</p>

**Table 4: References/Testimonials**

**Line Item 24.** Supply reference information from three customers who are eligible to be Sourcewell participating entities and for whom you have performed projects relevant to private wireless services. .

Entity Name *	Contact Name *	Phone Number *
<p>Fraport: Germany's largest airport</p> <p>NTT DATA was chosen as their partner to design and build a Private Wireless Network that would serve as the network base for connecting the technology needed to optimize airport operations. Fraport partnered with NTT DATA to implement Private Wireless Network as part of their overall strategy to optimize operations. We supported them throughout the project, from surveying the site and buildings to designing the architecture and implementing necessary software and hardware infrastructure. Fraport had already implemented AI to enhance airport operations at Frankfurt Airport. Adding a secure, low-latency, high-bandwidth network that can transmit data in real-time is key to enabling optimization and automation.</p> <p><a href="https://services.global.ntt/about-us/case-studies/fraport-ag">https://services.global.ntt/about-us/case-studies/fraport-ag</a></p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>
<p>Köln Bonn Airport, commercial airport in Germany for passengers and cargo</p> <p>NTT DATA worked with the airport to implement the Private Wireless Network infrastructure and to build use cases that explore what's possible with secure, low-latency, high-bandwidth data transmission in real-time over 1,000 hectares. This included surveying the site and buildings and strengthening the network signal with additional antennas to achieve perfect mobile-phone coverage across the airport.</p> <p><a href="https://services.global.ntt/about-us/case-studies/koeln-bonn-airport">https://services.global.ntt/about-us/case-studies/koeln-bonn-airport</a></p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>
<p>LyondellBasell: Global Chemical Industry Client</p> <p>NTT DATA is deploying outdoor Private Wireless Networks with ongoing Managed Services for a 5-year term.</p> <p>Providing a scalable solution to meet LyondellBasell's global needs.</p> <p>Pervasive concurrent 4G-LTE/5G high-reliability coverage in large sites as 70 M sq-ft.</p> <p>Global reach – 89% of sites covered day 1</p> <p>Ease of use – Program management</p> <p>Control – Visibility and management tools</p> <p><a href="https://services.global.ntt/en-us/announcements/showcasing-the-benefits-of-private-5g-with-lyondellbasell">https://services.global.ntt/en-us/announcements/showcasing-the-benefits-of-private-5g-with-lyondellbasell</a></p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>

<p>Albemarle: Global Mining Operations</p> <p>NTT DATA to provide Private Wireless Network connectivity for Albemarle’s mining operations. Albemarle needed a network that would allow its global engineers to connect with technicians for remote site surveys and assistance that would significantly improve the decision-making process and reduce the amount of global travel needed to operate. In addition, a private network provides the organization with enhanced security, high technology performance, and coverage to enable IoT devices.</p> <p><a href="https://services.global.ntt/en-us/newsroom/ntt-partners-with-albemarle-to-deploy-a-private-lte-5g-network">https://services.global.ntt/en-us/newsroom/ntt-partners-with-albemarle-to-deploy-a-private-lte-5g-network</a></p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>
<p>Global Digital Automation and Energy Management Manufacturer</p> <p>NTT DATA collaborated with the client, a leader in the digital transformation of energy management and automation, to deliver an on-premise Private Wireless Network and digitization enabling platform that can advance digital solutions to help achieve efficiency and sustainability goals with advanced digital processes.</p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>	<p>To protect client confidentiality, NTT DATA can not include personal contact information for individual client points of contact. However, NTT DATA is happy to request client permission for contact information to be shared should Sourcewell wish to speak to a client.</p>

**Table 5: Top Five Government or Education Customers**

**Line Item 25.** Provide a list of your top five government, education, or non-profit customers (entity name is optional), including entity type, the state or province the entity is located in, scope of the project(s), size of transaction(s), and dollar volumes from the past three years.

Entity Name	Entity Type *	State / Province *	Scope of Work *	Size of Transactions *	Dollar Volume Past Three Years *
City of Las Vegas	Government	Nevada - NV	1. Smart Platform. 2. Resell: Tech/Hardware: Network, AV, & Wireless, including private wireless/LTE. 3. Managed Services: Security and cloud IoT/Infrastructure.	Size of Transactions: \$1.3M-\$4K	Dollar Volume for Past Three Years: \$2M
Orange County Sheriff:	Government	California - CA	Systems Integrator for Infrastructure, Network, Wireless, and professional services. OEM reseller for network hardware, software, Cybersecurity, and wireless.	Size of Transactions: \$9M-\$1K	Dollar Volume for Past Three Years: \$14.6M
UCLA Health System	Non-Profit	California - CA	Unified Communications, Contact Center, Implementation of VoIP-professional services.	Size of Transactions: \$3M-\$15K	Dollar Volume for Past Three Years: \$6.9M
Keck Medicine of USC	Non-Profit	California - CA	Unified Communications, Contact Center, Implementation of VoIP-professional services. Managed Services for Cisco Contact Center.	Size of Transactions: \$464K-\$4.5K	Dollar Volume for Past Three Years: \$878K
Texas Department of Transportation	Government	Texas - TX	Software Development/Support; ServiceNow Implementation and Support; Legacy Support	Size of Transactions: \$7.3M. - \$109K	Dollar Volume for Past Three Years: \$53.8M

**Table 6: Ability to Sell and Deliver Service**

Describe your company’s capability to meet the needs of Sourcewell participating entities across the US and Canada, as applicable. Your response should address in detail at least the following areas: locations of your network of sales and service providers, the number of workers (full-time equivalents) involved in each sector, whether these workers are your direct employees (or employees of a third

party), and any overlap between the sales and service functions.

Line Item	Question	Response *
26	Sales force.	NTT DATA has ~200 sales representatives in the US and Canada region to support our clients.
27	Dealer network or other distribution methods.	For the products and services in scope, NTT DATA will use its direct sales force to engage directly with Sourcewell and clients utilizing the Sourcewell platform/contract. If a market opportunity requires it, NTT DATA does have the ability to sell and resell through dealer networks or other distribution methods.
28	Service force.	<p>Unlike other service solution providers, NTT DATA's service functions are not staffed by entry-level personnel. We offer direct access to highly skilled dedicated senior engineers 24x7x365 who are advanced network experts, knowledgeable of the customers' network environments, and able to dive deep into network-related issues.</p> <p>NTT DATA will assign a project manager as a single point of contact (SPOC) who will be responsible for all planning and management associated with implementing the services. The NTT DATA project manager will create a mutually agreed deployment plan that outlines project schedules, details project risks, provides project tracking, project status reporting, and opportunities for feedback from the client "</p>
29	Describe the ordering process. If orders will be handled by distributors, dealers or others, explain the respective roles of the Proposer and others.	<p>Standard Order Process:</p> <ol style="list-style-type: none"> <li>1) NTT DATA provides a quote and Statement of Work (SOW) to the client</li> <li>2) NTT DATA reviews and accepts the PO and signed SOW from the client</li> <li>3) NTT DATA order entry team to place the order</li> <li>4) NTT DATA supply chain places the order with the manufacturer or through a distributor</li> <li>5) The manufacturer or distributor provides an order confirmation to NTT DATA including product lead times.</li> <li>6) NTT DATA Client Manager notifies customer of any item that has long lead times</li> <li>7) The manufacturer or distributor ships directly to customer</li> <li>8) NTT DATA invoices customer</li> </ol>
30	Describe in detail the process and procedure of your customer service program, if applicable. Include your response-time capabilities and commitments, as well as any incentives that help your providers meet your stated service goals or promises.	<p>NTT DATA measures the performance of its customer support based on service level objectives tied to response time and problem severity.</p> <p>Accelerated Identification and Resolution</p> <p>NTT leverages its Predictive Network Analytics platform to accelerate identification and resolution of Private 5G network issues before they impact end-users, reducing time-to-repair.</p> <p>Predictive Modeling</p> <p>NTT's integration of audit logs with existing compliance tools help you meet compliance requirements; network discovery and inventory tools help optimize your maintenance contracts; and network analytics tools help further reduce downtime by automatically detecting network configuration issues.</p> <p>NTT clients experience better performance with a more reliable and available global IT infrastructure while easing the need for internal IT teams to manage increasingly complex technologies. NTT delivers optimal support for clients with multivendor IT infrastructure by providing complete transparency into real-time and historical performance via the NTTView portal. NTT consistently performs to target service levels by shifting from Mean-Time-to-Repair (MTTR) to Actual-Time-to-Repair (TTR) with NTT's world first TTR SLA.</p> <p>A detailed description of NTT DATA's Private 5G solution, managed service offering and underlying processes has been included with this proposal.</p>
31	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in the United States.	As one of the largest IT networking and services companies in the world, NTT has the resources and operating scale in the U.S. to respond to a execute against the high volume of inbound client opportunities that Sourcewell is trying to generate. This advantage in scale translates to an unmatched scale in engaging multiple deployments simultaneously and delivering each project successfully. NTT does this every day in countries all around the world.
32	Describe your ability and willingness to provide your products and services to Sourcewell participating entities in Canada.	As one of the largest IT networking and services companies in the world, NTT has the resources and operating scale in Canada to respond to a execute against the high volume of inbound client opportunities that Sourcewell is trying to generate. This advantage in scale translates to an unmatched scale in engaging multiple deployments simultaneously and delivering each project successfully. NTT does this every day in countries all around the world.
33	Identify any geographic areas of the United States or Canada that you will NOT be fully serving through the proposed contract.	NTT can deliver in any area of the U.S. and Canada.

34	Identify any Sourcewell participating entity sectors (i.e., government, education, not-for-profit) that you will NOT be fully serving through the proposed contract. Explain in detail. For example, does your company have only a regional presence, or do other cooperative purchasing contracts limit your ability to promote another contract?	NTT has no limitations in participating in any of Sourcewell's entity sectors, either regionally or globally, as well as the ability to promote alternative cooperative agreement-contract.	*
35	Define any specific contract requirements or restrictions that would apply to our participating entities in Hawaii and Alaska and in US Territories.	NTT has no specific contract requirements or restrictions that would apply to Sourcewell participating entities in Hawaii and Alaska and in US Territories.	*

**Table 7: Marketing Plan**

Line Item	Question	Response *	
36	Describe your marketing strategy for promoting this contract opportunity. Upload representative samples of your marketing materials (if applicable) in the document upload section of your response.	As a global, Fortune 100 company, NTT has a scaled and highly sophisticated marketing capability. As a proof point of its marketing prowess, NTT DATA was the #1 fastest growing tech brand in 2023, as measured by BrandFinance.com, outpacing such notable tech brands as LinkedIn, Instagram, DoorDash, Oracle, AirBnB and YouTube. The same study found NTT DATA to be the 6th most valuable IT services brand globally.  NTT DATA's marketing strategy to promote the contract lies within its value proposition, which is a full stack end-to-end managed service solution. The value proposition and product offer is marketed through various channels, including digital channel, direct channel (digital webinars, events, Above the line and below the line campaigns, blogs), industry events and summits (e.g. MWC) and others. In addition, NTT Data has a vast repository of client use cases and references to boost credentials. Marketing collateral is attached as references as well.	*
37	Describe your use of technology and digital data (e.g., social media, metadata usage) to enhance marketing effectiveness.	NTT Data has extensive digital marketing campaign strategy, including above-the-line and below-the-line marketing campaigns. our above the line campaigns include mass awareness campaigns, industry event promotions, industry analysis reports. Our below-the line campaigns include Account Based Marketing efforts via various communication methods, targeted at key clients and key verticals. in additional to digital marketing campaigns, NTT Data has heavy presence at industry events and summit to promote use case demonstrations.	*
38	In your view, what is Sourcewell's role in promoting contracts arising out of this RFP? How will you integrate a Sourcewell-awarded contract into your sales process?	NTT welcomes collaboration with Sourcewell in the process of developing marketing campaigns to promote such contracts. The degree to which Sourcewell is involved in such planning is totally up to Sourcewell itself.  As the Sourcewell awarded contracts become public, NTT DATA will ensure to create different collaterals highlighting the value proposition and integrate them into NTT DATA references, success stories and market them via various channels, including digital channel, direct channel as well as part of future sales engagements. Sourcewell, could also reuse these collaterals and cascade them via their existing marketing channels.	*
39	Are your products or services available through an e-procurement ordering process? If so, describe your e-procurement system and how governmental and educational customers have used it.	NTT DATA does support e-procurement and makes that capability available to its clients across both public sector and commercial sectors. This capability has not yet been adapted to the ordering process for NTT DATA's Private 5G solution due to the highly service-oriented and customized nature of the underlying Private 5G solution and service deliverables. As such, e-procurement of Private 5G is still a future consideration.	*

**Table 8: Value-Added Attributes**

Line Item	Question	Response *	
40	Describe any product, equipment, maintenance, or operator training programs that you offer to Sourcewell participating entities. Include details, such as whether training is standard or optional, who provides training, and any costs that apply.	As the private wireless market is still very early in its lifecycle, enterprises are generally not yet familiar with cellular networking concepts or best practices for private wireless operations. As such, the prevalent model for implementation is one in which the private wireless provider takes on responsibility for all phases of network implementations and ongoing operation (design, deployment, management and support). This means that very little, if any, training is typically involved the majority of private wireless clieten engagements.  Some clients do request training on the use of the NTT portal for SIM management. Such training is typically provided at an additional cost, which is determined based on both the scope of the training required and the location.	*

41	Describe any technological advances that your proposed products or services offer.	<p>In this proposal, NTT is partnering with two of the world's most innovative companies in the networking space. Both Cisco and Nokia are best-of-breed providers and both are among the industry titans when it comes to their innovation and advanced technological breakthroughs. Below are just a few examples of advanced capabilities that Sourcewell client companies will benefit from:</p> <p>Cisco Control Center Anomaly Detection:</p> <p>Cisco's anomaly detection feature...</p> <ul style="list-style-type: none"> <li>- uses artificial intelligence (AI) and machine learning (ML) to analyze your network's data consumption and device connectivity patterns over months to understand normal behavior</li> <li>- detects anomalous device or network behavior—for example, a spike in activity at unusual times—and swiftly alerts your NTT support team</li> <li>- helps you focus effort where it's most important by grouping anomalies by severity (critical, major, minor)</li> <li>- helps you troubleshoot affected devices by providing details such as: <ul style="list-style-type: none"> <li>o Issue type and duration</li> <li>o Device type, geography, rate plan</li> <li>o Six months of historical behavior</li> <li>o Root cause analysis</li> </ul> </li> <li>- visualizes anomalous behavior and trends by geography, device type, rate plan, and more.</li> <li>- visualizes anomalous behavior and trends by geography, device type, rate plan, and more.</li> </ul> <p>What's unique about Control Center's Anomaly Detection feature?</p> <ul style="list-style-type: none"> <li>- More accurate insights. The accuracy of anomaly detection depends on the volume and variety of data used to train the machine learning model. Control Center Anomaly Detection is continuously trained with data from 220+ million IoT devices that have connected to Control Center since 2018. The data represents many use cases, device types, and device behavior patterns, giving you more accurate insights about potential service or security issues.</li> <li>- Learning without human intervention. Control Center Anomaly Detection autonomously learns normal behavior patterns in your network without any effort from your staff, speeding insights and lowering costs.</li> <li>- Rapid service introduction. With easy one-touch service enablement, all your device connections are immediately monitored without having to be explicitly added.</li> </ul> <p>Similarly, an example of a key technological advance by Nokia with its AirScale radios is Network Slicing. In the 2021 GTI Awards, Nokia 4G/5G Slicing solution won the Innovative Breakthrough in Mobile Technology Award.</p> <p>Network slicing means creating virtual, independent end-to-end networks or 'slices' within the mobile operator's physical network consisting of the Radio Access Network (RAN), the transport layer and the Core network. Network slices have tailored capabilities to meet the requirements of different applications, services, and user categories. Such capabilities include, for example, network performance, quality of service, security and routing capabilities.</p> <p>Why is Network (RAN) Slicing important?</p> <p>5G RAN slicing is essential for supporting new innovative use cases that 5G enables. RAN slicing solution helps service providers like NTT to provide high performing, high quality, secure and independently manageable services to our clients.</p> <p>RAN slicing consists of network capabilities that are configured to meet the agreed service-level requirements tailored for each slice. With network slicing, operators can optimize and prioritize the use of their 4G and 5G network resources.</p> <p>With Network Slicing, NTT can deliver new and innovative value to its clients by managing service quality, dynamic radio resource allocation, RAN traffic isolation and engineering as well security separately for each slice. By collecting defined Key Performance Indicators from 4G/5G base stations, NTT can ensure it meets network slicing service levels set by Sourcewell clients.</p>
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42	Describe any "green" initiatives that relate to your company or to your products or services, and include a list of the certifying agency for each.	<p>Our environment and society are constantly undergoing significant changes and businesses are required to address societal issues and preserve our global environment, while driving business growth.</p> <p>We at NTT DATA take such great changes as an opportunity for further growth. In May, 2022, we developed a new *medium-term management plan which has stepped up our existing ESG-oriented management initiatives and promotes such efforts as sustainability management with a long-term perspective.</p> <p>In this plan, we set forth "Realizing a Sustainable Future" as our slogan. We will work on addressing social challenges and contributing to the global environment from both aspects of our own corporate activities (of IT) and business activities of our clients and society (by IT) based on the three dimensions of "Clients' Growth," "Regenerating Ecosystems," and an "Inclusive Society," thereby aiming for further growth together with our clients. In order to promote these activities, we have identified nine material issues and will work toward them on a global basis:</p> <ul style="list-style-type: none"> <li>-&gt; Carbon Neutrality Contribute to solving climate change issues by creating innovations to decarbonize society and clients.</li> <li>-&gt; Smart X Co-innovation Create new value through co-creation with various companies to achieve a smart and innovative society.</li> <li>-&gt; Human Rights &amp; DEI Work to create an equitable society where a diverse range of people thrive and respect each other's human rights.</li> <li>-&gt; Circular Economy Reduce waste and create a society where the value of products and services continues to circulate.</li> <li>-&gt; Trusted Value chain Uphold data privacy and security to ensure safe, secure and resilient corporate activities.</li> <li>-&gt; Digital Accessibility Deliver services that provide everyone with equal access to basic needs and improve people's quality of life.</li> <li>-&gt; Nature Conservation Generate sound global environment and contribute to people's well-being by conserving and recovering nature capital.</li> <li>-&gt; Future of Work New ways of working that enhance employee experience and performance. Provide and promote work style reforms for society as a whole.</li> <li>-&gt; Community Engagement Understand the challenges and needs for the development of local communities and provide services that enrich people's lives.</li> </ul> <p>For more information please feel free to read our sustainability report (link as below):  <a href="https://www.nttdata.com/global/en/-/media/nttdataglobal/1_files/sustainability/sustainability-report/2023/sr2023.pdf?rev=df6dd32585254cf1b9e946a1d816c591">https://www.nttdata.com/global/en/-/media/nttdataglobal/1_files/sustainability/sustainability-report/2023/sr2023.pdf?rev=df6dd32585254cf1b9e946a1d816c591</a></p>
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43	Identify any third-party issued eco-labels, ratings or certifications that your company has received for the equipment or products included in your Proposal related to energy efficiency or conservation, life-cycle design (cradle-to-cradle), or other green/sustainability factors.	<p>NTT DATA has formulated ""NTT DATA NET-ZERO Vision 2040"" in response to the growing call worldwide to accelerate climate change action. ""Green Innovation of IT"" promotes our own efforts to reach Net-Zero.NTT DATA has set up a Green Action Committee to promote company-wide efforts to tackle environmental actions. This committee oversees the activities of each business division and enhance environmental and social impacts through our services.</p> <p>NTT DATA has been recognized for leadership in corporate transparency and performance on climate change by CDP, securing a place on its annual 'A List'. NTT DATA's actions toward transition to net zero carbon emissions have been introduced in the CDP's 'Story of Change' reports in 2021 and 2022 as a leading practice that may inspire and encourage other companies. Below are some of our partnerships and alliances that help drive sustainability by partnerships with leading stakeholders:</p> <p>-&gt; Carbon Neutrality : March 2021 Endorsed TCFD recommendation NTT DATA has positioned climate change measures as high material issues</p> <p>-&gt; Carbon Neutrality : September 2021 Joined Green Software Foundation Joined as 6th core member of Green Software Foundation. Commits to accelerate greening.</p> <p>-&gt; Nature Conservation: February 2023 Joined TNFD Forum Joined TNFD Forum aiming better transparency on nature-related risks and opportunities</p> <p>-&gt; Carbon Neutrality: June 2022 Established Estanium Established ESTAINIUM with 14 partners to develop open and secure platform for exchanging information.</p> <p>-&gt; Carbon Neutrality : March 2021 Joined RACE TO ZERO Circle Joined through Business Ambition for 1.5°C</p> <p>-&gt; Carbon Neutrality : March 2022 Accredited as CDP GOLD partner Accredited as 20th company in consulting and software services.</p> <p>-&gt; Carbon Neutrality : April 2022 Joined CDP supply chain membership Became a 5th supply chain premium member in the world to accelerate net zero.</p> <p>-&gt; Carbon Neutrality: March 2021 Declared Business Ambition for 1.5°C Endorsed SBT Business Ambition for 1.5°C</p> <p>-&gt; Nature Conservation: February 2023 Joined 30 by 30 Alliance Joined to stop degradation of biodiversity and contribute to protect at least 30 percent of land and ocean areas</p>
44	Describe any Women or Minority Business Entity (WMBE), Small Business Entity (SBE), or veteran owned business certifications that your company or hub partners have obtained. Upload documentation of certification (as applicable) in the document upload section of your response.	<p>NTT DATA makes good faith efforts to encourage participation of economically disadvantaged business firms and provides equal access to potential business opportunities for small businesses, small disadvantaged businesses, woman-owned small businesses, veteran-owned small businesses, minority and women business enterprises, and Historically Underutilized Businesses (HUB) Zone to participate as partners and suppliers of goods and services within our corporate supply chain. As just one example of this commitment, two of the primary vendors NTT will use in airport and other Sourcewell-related deployments are KCC and Terranet, both of which are certified SBEs. NTT DATA is submitting these SBE certificates along with our response for your reference.</p> <p>NTT is confident that, together with these and other partner companies, we can meet diversity supplier utilization requirements and have done so on all previous engagements. We maintain a database of diverse business with which we have had success, and we maintain ongoing relationships with them. We are committed in partnering with these businesses, as required.</p> <p>Our diversity program is distributed among different parts of our organization; therefore, we do not have a single diversity supplier contact person. Recognizing the importance of this type of reporting at the corporate level, In support of this goal, we just completed a financial system consolidation that allows the suppliers to self-register their diversity standing. NTT DATA in itself does not hold any WMBE or SBE or veteran owned business certifications.</p>

<p>45</p>	<p>What unique attributes does your company, your products, or your services offer to Sourcewell participating entities? What makes your proposed solutions unique in your industry as it applies to Sourcewell participating entities?</p>	<p>As a company, NTT DATA's role is to help our clients transform their IT operations to achieve demonstrable, measurable, and sustainable improvement for their business operations.</p> <p>Across the United States, we help large organizations in the private and public sectors optimize their IT investments by creating, operating, maintaining, and evolving critical systems and business processes.</p> <p>Our services are designed to help you address today's challenges, and tomorrow's — whether it's to help you jump-start your cloud migration, reinvent your customer experience, streamline your business processes, or upgrade your infrastructure. From industry-centric consulting to managed services, our portfolio offers innovative solutions and flexible options to move your business to the next level.</p> <p>As part of one of the world's largest corporations, NTT DATA combines our tradition of local knowledge and hands-on understanding of clients in the United States with the experience and worldwide reach of a global company. The result: Low-risk, actionable, cost-effective services and solutions as well as a partnership that acts as an extension of your own organization.</p> <p>NTT's unique attributes in Private 5G include the following:</p> <p>-&gt; IT System Integrator Core Competence - Many different types of tech and communications companies have stepped forth to announce their presence in the emerging Private 5G industry segment, including cellular carriers, cloud service providers, compute OEMs, independent software vendors and others. NTT believes its profile as system integrator is the optimal one for executing all four phases of the lifecycle of a Private 5G network: design, deployment, management and support. Only a true IT system integrator with network management competence can provide the right set of skills and competencies to execute all four, while also leveraging deep knowledge of the LAN and application management environments needed to fully integrate the new Private 5G network into a client's existing IT environment.</p> <p>-&gt; Global Scale - NTT's global reach and scale will be a distinct advantage as the rate of market adoption of Private 5G increases. While smaller providers' resources will become exhausted as demand outstrips supply, NTT has both the existing scale and national coverage in the U.S. and Canada to meet demand -- as well as the deep financial resources to acquire new capacity as market demand requires it. Additionally, NTT's global reach will be an advantage for those U.S. and Canadian companies who wish to expand their P5G deployments beyond North American borders.</p> <p>-&gt; World Class Technology - as demonstrated by the industry awards and recognition NTT's Private 5G solutions and capabilities have received (as referenced in this response), NTT's solution is truly industry-leading and world class. As a system integrator, NTT has the freedom to choose the best technologies the market has to offer -- partners like Cisco for the 5G core software platform and Nokia for radio access network (RAN) infrastructure, By combining these third-party solution elements with its own deep competencies in network management and support, application development and integration, device testing and P5G use case development, NTT is offering Sourcewell client users a best-of-breed portfolio of both solution and services capabilities.</p> <p>-&gt; Integration with Other Wireless Broadband Technologies - NTT is uniquely positioned to lead in the race to create new value for clients in the area of both Private/Public Cellular roaming and Private 5G-WiFi interworking.</p> <p>NTT has a truly unique advantage over all other Private 5G providers in the fact that NTT owns 100% control in Transatel, a global MVNO (mobile virtual network operator). As an aggregator of licensed public cellular network coverage, Transatel offers NTT clients a global cellular coverage footprint comprised of over 225 countries. This means that clients who need their devices to leave the local Private 5G coverage area but stay connected will have this ability under one contract, utilizing one SIM card/profile.</p> <p>Another advantage for NTT Private 5G clients is NTT's global alliance with Cisco, a world leader in enterprise WiFi technology. NTT expects its close collaboration with Cisco will drive new, cutting edge innovation in Private 5G/WiFi interworking in the years ahead, unlocking new value for enterprise clients by allowing devices to dynamically move between these respective network layers.</p>
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**Table 9A: Warranty**

**Describe in detail your manufacturer warranty program, including conditions and requirements to qualify, claims procedure, and overall structure. You may upload representative samples of your warranty materials (if applicable) in the document upload section of your response in addition to responding to the questions below.**

Line Item	Question	Response *
46	Do your warranties cover all products, parts, and labor?	The manufacturer's warranty of NTT DATA proposed solution of Nokia RAN and Cisco Core is applicable for 1 year. Onsite spares and hardware warranty support will be provided through return merchandise authorization (RMA). Post 1 year of Manufacturer warranty, further support will be provided to all products supplied through NTT DATA by Day-2 Managed services Team during the course of managed service contract. Labor cost for hardware replacement or technician on-field is currently not under purview of this proposal. This can be discussed, and service will be provided at an additional cost
47	Do your warranties impose usage restrictions or other limitations that adversely affect coverage?	NTT-offered Solutions or Services do not impose any usage restrictions beyond those defined in the standard EULAs. For the Warranty to be valid the solution and equipment must be used as per documentation, manual and local regulations but that doesn't affect coverage. The warranty will be null and void in case of any physical damage and/or legal tampering.
48	Do your warranties cover the expense of technicians' travel time and mileage to perform warranty repairs?	On-field Technician can be made available on need basis, Cost On-field Technician and Travel at this moment is excluded and will be at additional cost.
49	Are there any geographic regions of the United States or Canada (as applicable) for which you cannot provide a certified technician to perform warranty repairs? How will Sourcewell participating entities in these regions be provided service for warranty repair?	NTT DATA intends to perform services throughout US and Canada without any geographic limitations.
50	Will you cover warranty service for items made by other manufacturers that are part of your proposal, or are these warranties issues typically passed on to the original equipment manufacturer?	NTT will (to the extent legally and contractually permissible) pass on or assign to Client any third-party warranties offered by the applicable OEM for all Products purchased by Client that are provided by such OEM. Once a trouble ticket is opened, an NTT Engineer will troubleshoot the issue, notify Enterprise Client, and follow the Client engagement procedures previously agreed upon with each individual customer. The troubleshooting may involve reporting incident with SIM provider or setup site dispatch or engage Original Equipment Manufacturer (OEM) TAC (Technical Assistance Center) or other actions as necessary to resolve the issue as per the defined and agreed SLAs
51	What are your proposed exchange and return programs and policies?	If the NTT DATA-managed PWN equipment requires a return merchandise authorization (RMA), NTT DATA will manage the RMA process and will replace the device in accordance with the applicable hardware maintenance program. We will prioritize device restoration and utilize a spare device at a client's site for replacement. Customer will be responsible for device installation. NTT Team will test network management system visibility, run diagnostic tests to verify stability, and confirm that the NTT DATA-managed device is operational and properly configured. If the NTT Engineer determines that a network incident is related to an NTT Managed Device, the NTT Engineer will attempt to restore service by performing remote troubleshooting. Equipment Replacement If the NTT Managed Device requires replacement, NTT will replace the device in accordance with the applicable hardware maintenance program. NTT may assist and direct remotely customer onsite personnel in the physical installation, configuration, testing and on-boarding of the replacement hardware. If requested by Enterprise and subject to additional charges, NTT shall dispatch NTT resources onsite.
52	Describe any service contract options for the items included in your proposal.	All provided equipments are covered by the manufacturer's warranty and complemented by the Day 2 support service under the fully managed services suite. If the NTT DATA Managed Device requires replacement, we will replace the device in accordance with the applicable hardware maintenance program. NTT DATA has two approaches to swapping defective Private Wireless Network hardware. Trained client engineers can swap the hardware, while the NTT DATA technical support team will remotely update software and configuration. This is typically the case for RAN equipment. If requested by client, NTT DATA shall dispatch our resources onsite. For more complicated swaps (such as the Core), NTT DATA will dispatch a field engineer with the necessary equipment to swap the hardware and perform software updates and patches. The NTT DATA NOC will test network management system visibility, run diagnostic tests to verify stability, and confirm that the NTT DATA Managed Device is operational and well-configured.

Table 9B: Performance Standards or Guarantees

Describe in detail your performance standards or guarantees, including conditions and requirements to qualify, claims procedure, and overall structure. You may upload representative samples of your performance materials (if applicable) in the document upload section of your response in addition to responding to the questions below.

Line Item	Question	Response *
53	Describe any performance standards or guarantees that apply to your services	<p>The NTT DATA Team will be considering site-specific information provided by Customer during the Project Inception phase to plan and create a bill of materials (BOM) for the PWN solution for each Customer venue/ sites. A formal site survey and RF predictive modeling will be required to finalize the BOM for each site. The network will be designed to provide full outdoor coverage within the vicinity of each site or target coverage area. For the indoor coverage assessment, we will estimate the indoor area requiring PWN service using Google Earth, Google Street View, and public information that will be available at our disposal to plan the indoor network BOM.</p> <p>The approach taken for coverage planning will be to provide outdoor coverage to the entire site/venue via the outdoor PWN Radios; and indoor coverage for the estimated indoor areas only that require PWN service via indoor PWN access points for each plant facility.</p> <p>We have illustrated the aggregate throughput (DL/UL) and device connectivity capacity that would be supported by the PWN based on our Experience and Industry standards. The throughput performance and network capacity would directly correlate to the spectrum availability; and the number of outdoor radios and indoor access points deployed at each site.</p> <p>Provided below are the performance objectives of the PWN that NTT DATA expects to deliver for each site.</p> <p>Objective - Outdoor/Indoor Coverage  Metric - RSRP  Value - -105dBm  Description - &gt;90% of the area in scope</p> <p>Objective - Throughput per Radio/AP  Metric - Peak Throughput  Value - 240Mbps  Description - 40MHz channel considered</p> <p>Objective - Availability  Metric - Uptime  Value - 99.9%  Description - PWN SLO excluding Customer LAN/WAN</p>

54	Describe any service standards or guarantees that apply to your services (policies, metrics, KPIs, etc.)	<p>NTT's primary metric as Service Level Agreement (SLA) is network uptime (availability). NTT's standard SLA is 99.9%. but the specific performance level can vary based on the prescribed use case and solution architecture.</p> <p>NTT DATA offers service-level commitments for our PWN Services, and service-level credits are provided to clients in the event of failure to meet such commitments. The following table provides sample SLAs. Please note that these SLAs are for illustrative purposes and may be adjusted at the time of SOW finalization for each site.</p> <p>Severity Level : 1 – Critical                  Initial Response Time : 15 minutes                  Initial Restoration Time : Restore within 4 hours                  Status Updates Target : 1 hour</p> <p>Severity Level : 2 – Major                  Initial Response Time : 1 hour                  Initial Restoration Time : Restore within 24 hours                  Status Updates Target : 4 hours</p> <p>Severity Level : 3 – Normal                  Initial Response Time : 12 hours                  Initial Restoration Time : Restore within 48 hours                  Status Updates Target : 1 business day</p> <p>Severity Level : 4 – Information/ Question                  Initial Response Time : 24 hours                  Initial Restoration Time : N/A                  Status Updates Target : To be determined based on the problem/request</p> <p>Note: SLA restoration times provided above pertain to remote support of our network solution and exclude the time required for onsite dispatch-related hardware issues and restoration periods.</p>
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**Table 10: Payment Terms and Financing Options**

Line Item	Question	Response *
55	Describe your payment terms and accepted payment methods.	Payment terms: 30-days. Payment Methods: 1. Approved purchase order 2. Authorized credit card or government issued P-card.
56	Describe any leasing or financing options available for use by educational or governmental entities.	NTT provides financing for educational and governmental entities. In addition, for clients who prefer the option of a fully OpEx-based commercial model (what NTT calls Network-as-a-Service or NaaS), NTT integrates all aspects of design, deployment, management and support of the network into a holistic managed service that is offered to the client for a single, fixed, monthly fee.
57	Describe any standard transaction documents that you propose to use in connection with an awarded contract (order forms, terms and conditions, service level agreements, etc.). Upload a sample of each (as applicable) in the document upload section of your response.	Response to this line item is added as attachment
58	Do you accept the P-card procurement and payment process? If so, is there any additional cost to Sourcewell participating entities for using this process?	Yes, NTT accepts government-company issued P-cards as an alternative payment process. There is no additional cost to Sourcewell participating entities for using this process.

**Table 11: Pricing and Delivery**

Provide detailed pricing information in the questions that follow below. Keep in mind that reasonable price and product adjustments can be made during the term of an awarded Contract as described in the RFP, the template Contract, and the Sourcewell Price and Product Change Request Form.

Line Item	Question	Response *
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59	Describe your pricing model (e.g., line-item discounts or product-category discounts). Provide detailed pricing data (including standard or list pricing and the Sourcewell discounted price) on all of the items that you want Sourcewell to consider as part of your RFP response. If applicable, provide a SKU for each item in your proposal. Upload your pricing materials (if applicable) in the document upload section of your response.	Please refer to our attached Pricing Model document: 1. Network component pricing is based on minimum spend requirements for a network segment (refer to pricing model for list of network component SKUs) 2. The total cost of ownership is dependent on final site survey and design. The network segment multiplier will be applied to determine the total cost of the solution. Please refer to sample scenario pricings provided for examples 3. Estimated price per network segment is inclusive of all deal registration, partner discounts and professional services discounts. Additional 5% discount is applied as part of this proposal. 4. Example of minimum network hardware requirements are 1 High Availability core and 4 outdoor radios plus antennas or 1 High Availability core and 10 indoor radios. 5. Minimum 4-year contract term commitment is required. Post 4-year term, 1 year renewal options are available. 6. All components of network hardware, software, set-up and managed services must be included in a contract. 7. Minimum of 4 hours are required for professionals services.	*
60	Quantify the pricing discount represented by the pricing proposal in this response. For example, if the pricing in your response represents a percentage discount from MSRP or list, state the percentage or percentage range.	Estimated pricings for this proposal submission is inclusive of all deal registration, partner discounts and professional services discounts. In addition, NTT will apply an additional 5% discount on top of the proposed pricing (including in the pricing model attachment).	*
61	Describe any quantity or volume discounts or rebate programs that you offer.	NTT does offer increased discount levels on larger transactions. Enhanced discounts are dependent on deal size and are approved on a discretionary, case-by-case basis.	*
62	Propose a method of facilitating "sourced" products or related services, which may be referred to as "open market" items or "nonstandard options". For example, you may supply such items "at cost" or "at cost plus a percentage," or you may supply a quote for each such request.	Any additional network equipment or services requested would be quoted at standard price.	*
63	Identify any element of the total cost of acquisition that is NOT included in the pricing submitted with your response. This includes all additional charges associated with a purchase that are not directly identified as freight or shipping charges. For example, list costs for items like pre-delivery inspection, installation, set up, mandatory training, or initial inspection. Identify any parties that impose such costs and their relationship to the Proposer.	For network equipment, exclusions include: network equipment Spare HW, applicable duties, import tax, VATs. For Deployment services, assumptions include: - deployment costs are based on moderately complex environments and standard installations. Complex installation requirements will be subject to additional charges. - Standard Walk Test Protocol for network testing is included. - deployment services are during normal business hours, requested work time outside of normal business hours are subject to extra charges. - Permits and inspection fees are excluded. Escorts/guides, if required, will be provided by the end customer - Site-specific training for deployment, safety procedures, or access clearances will be limited to 2 hours total. If delays are encountered due to site specific training, safety procedures, or access clearances; a change order will be applied - Travel expenses are excluded - Man lifts, scissor lifts, cranes for installations are excluded and subject to additional charges - Walk Test equipment is excluded - Additional construction work, such as fiber and cable installation is excluded - conduit work is excluded - additional site surveys and RF designs outside of project scope will require a change request - Dispatch fees are excluded	*
64	If freight, delivery, or shipping is an additional cost to the Sourcewell participating entity, describe in detail the complete freight, shipping, and delivery program.	Shipping and delivery costs are excluded from the price. Shipping, freight and delivery costs will be determined at time of network equipment purchase.	*
65	Specifically describe freight, shipping, and delivery terms or programs available for Alaska, Hawaii, Canada, or any offshore delivery.	Shipping and delivery are available in these regions and globally.	*
66	Describe any unique distribution and/or delivery methods or options offered in your proposal.	We aim to for a local to local and/or regional distribution model as much as possible.	*

**Table 12: Pricing Offered**

Line Item	The Pricing Offered in this Proposal is: *	Comments
67	c. better than the Proposer typically offers to GPOs, cooperative procurement organizations, or state purchasing departments.	Please refer to our attached document for our pricing for different PWN sizes 1.Small -upto 50 APs approximate Coverage Area - Indoor: 600K sq.ft and outdoor 1,150K sq.ft 2.Medium - upto 150 APs Coverage Area - Indoor: 1,800K sq.ft and outdoor 3,450K sq.ft 3.Large - upto 300 APs Coverage Area - Indoor: 3,600K sq.ft and outdoor 6,900K sq.ft

**Table 13: Audit and Administrative Fee**

Line Item	Question	Response *
68	Specifically describe any self-audit process or program that you plan to employ to verify compliance with your proposed Contract with Sourcewell. This process includes ensuring that Sourcewell participating entities obtain the proper pricing, that the Vendor reports all sales under the Contract each quarter, and that the Vendor remits the proper administrative fee to Sourcewell. Provide sufficient detail to support your ability to report quarterly sales to Sourcewell as described in the Contract template.	NTT DATA has a process in place to ensure compliance with contract reporting requirements. The team has extensive knowledge and experience managing contract sales, calculating fees, and paying them on time. Pricing is always kept up to date and any cost savings are passed on to the customer.  NTT DATA's process ensures that NTT DATA quotes and the corresponding client purchase orders each reference the contract name and number for tracking purposes. The NTT DATA order entry team is trained to enter orders with this contract information which ensures that orders flow through internal systems correctly. Reporting then follows this process and admin fees are paid.
69	If you are awarded a contract, provide a few examples of internal metrics that will be tracked to measure whether you are having success with the contract.	NTT has a dedicated Public Sector contracts team that maintains records on usage and reports results on a monthly and quarterly basis, depending on the contract requirements. NTT has several large contracts such as NASPO, NCPA, EQUALIS, GSA, etc. NTT tracks usage of these contracts and, if a slow-down is seen in a certain area, works one-on-one with sales teams to mitigate. NTT DATA does extensive marketing to create awareness of cooperative contracts and promote their maximum use.  NTT DATA has a large and highly experienced sales force that understands the importance of cooperative contracts and how their clients can benefit from using them. These contracts save our clients time and money by allowing them to avoid the time and complexity involved in issuing RFPs and drafting contracts from scratch. Educating our clients on cooperative contracts is key to NTT DATA's success.
70	Identify a proposed administrative fee that you will pay to Sourcewell for facilitating, managing, and promoting the Sourcewell Contract in the event that you are awarded a Contract. This fee is typically calculated as a percentage of Vendor's sales under the Contract or as a per-unit fee; it is not a line-item addition to the Member's cost of goods. (See the RFP and template Contract for additional details.)	Similar contracts in North America that NTT has entered into have involved administrative fees in the range of 1-1.5%.

**Table 14A: Depth and Breadth of Offered Equipment Products and Services**

Line Item	Question	Response *
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71	Provide a detailed description of the equipment, products, and services that you are offering in your proposal.	<p>NTT DATA's PWN Network solution is based on industrial-grade 3GPP-compliant PWN Nokia radio access network (RAN) infrastructure with access points (APs) deployed at indoor and outdoor locations in Target Venue (including Airports, Universities, Stadiums etc.) to deliver pervasive coverage, interference-free access, and unmatched wireless performance. Our PWN Network solution meets all of Sourcewell's RFP requirements and is planned based on the Sourcewell's requirements covering different industries.</p> <p>Solution Snapshot</p> <p>PWN RAN -Nokia</p> <ul style="list-style-type: none"> <li>- Indoor Micro 4T4R PWN RAN solution</li> <li>- Outdoor pRRH 4T4R PWN RAN solution.</li> </ul> <p>PWN Core - Cisco</p> <ul style="list-style-type: none"> <li>- Cisco Core UCS220 High availability configuration (1-Active and 2 Standby Configuration)</li> </ul> <p>SIM Cards</p> <ul style="list-style-type: none"> <li>- Transatel MVNO Sim cards with optional Private to Public Network switch</li> </ul> <p>SAS (Spectrum Access System)</p> <ul style="list-style-type: none"> <li>- SAS subscription from Google</li> </ul> <ul style="list-style-type: none"> <li>- Indoor sites include PWN new radio (NR) access points (eNBs).</li> <li>- Outdoor sites include PWN NRs with external outdoor-rated antennas.</li> <li>- SIM cards will be provisioned to Sourcewell's requirements that can be used to connect Sourcewell's end-user devices to the PWN Network.</li> <li>- Network health will be monitored to deliver Sourcewell's service level agreements (SLAs).</li> <li>- The software will be kept up to date through regular updates.</li> <li>- Onsite spares and hardware warranty support will be provided through return merchandise authorization (RMA).</li> <li>- Dedicated program management and governance will oversee all deployment activities.</li> </ul> <p>NTT DATA's Services</p> <p>NTT DATA 's service delivery model to meet Sourcewell's Participating Entities, requirements includes Professional Services for PWN Network deployments and Managed Services for network management and operations as a part of our Day 1 and Day 2 services portfolio respectively.</p> <p>Professional Services</p> <p>NTT DATA professional services include a full suite of deployment capabilities. This includes site survey, network design, installation, commissioning, testing, and tuning, in collaboration with Sourcewell's existing construction vendors to complete all physical installation activities. We will also provide training, project governance, change management, service delivery management, and transition support tailored to Sourcewell's business processes.</p> <p>Managed Services</p> <p>Our fully managed services will monitor, manage, and maintain the PWN Network 24x7x365 to meet guaranteed SLAs, customized to meet Sourcewell's business outcomes. We also propose collaboration and investment by NTT DATA in proofs-of-concept with Sourcewell to incubate advanced use cases.</p> <p>NTT DATA Managed Services offers proactive support and service level agreement (SLA) management. Our service, comprises of 24x7x365 Network Monitoring, offers full software updates, patches, and hardware warranty.</p>
72	Describe your supported 911 features and the planning, design, implementation and management products, services and process steps required.	<p>911 Features are not supported in the vicinity of PWN network, Outside PWN network coverage, User can handover to public PLMN and initiate a 911 call depending on CSP's networks configuration.</p> <p>The implementation approach will be customized and tailored for each Customer site based on the pertinent requirements gathered from each site. Below is our five-phase implementation approach that we will follow for deploying a fully managed PWN solution for Customer.</p> <p>Phase 1: Project Inception</p> <p>This phase takes place right after the statement of work (SOW) has been finalized and accepted for each site. This involves the following steps:</p> <p>Set up project initiation: NTT DATA will assign personnel who will be a part of the project delivery team. This includes the project manager, solution architect, engineer, RF engineer, field deployment teams, managed service teams, and the governance team. The project manager will engage any other internal and external stakeholders to gather the pertinent information to begin project planning.</p> <p>Conduct kickoff meeting: The project manager will share the high-level project plan that will include the project overview, design and deployment processes, key milestones, and timelines.</p> <p>Initiate project cadence: The project manager will schedule meetings (with guidance from the Customer project lead) to begin work on the next phases of the project.</p>



**Phase 2: Project Planning**

This phase involves beginning the process of gathering pertinent site-specific information to be able to design a fully managed solution serving a specific Customer site.

**Conduct site visit:** The project manager will coordinate with the Customer project lead to plan a visit to the site to collect specific information such as the coverage areas, equipment mounting locations, existing cabling, LAN infrastructure locations, and power availability that will help with finalizing the engineering and installation requirements of the PWN solution. In addition to this, information on security requirements, along with application and end-user device information, will also be collected during or right after the site visit to perform capacity planning and plan for the secure integration of applications onto the PWN.

**Complete the RF design:** Based on the data collected during and after the site visit, the RF engineering team will finalize an RF design considering the coverage and capacity requirements of the Customer site. The RF design will include the site build form which takes into consideration approved radio mounting locations studied during the site visit.

**Complete IP network integration design:** Our solution architect and network engineering team members will work with Customer IT and security team members from each in-scope site to work out the IP planning and secure network integration design to deploy the PWN Network solution.

**Complete end-to-end design:** Our solution architect will create an end-to-end network design taking into consideration all of the work conducted in the previous steps. This end-to-end design will be shared with the Customer project lead and other technical lead members for approval as required.

**Finalize site-specific SOW and bill of materials (BOM):** Based on the input of all activities conducted previously within this phase, the SOW and BOM can now be finalized. The final SOW and the BOM will be shared with the Customer project lead and stakeholders for approval before proceeding to the procurement of the PWN Network equipment.

**Complete equipment procurement:** NTT DATA will begin the procurement of the PWN Network equipment right after Customer formally accepts the final SOW and BOM. Our project manager will coordinate the delivery of the equipment with the Customer project lead and verify that there is a secure onsite location to store the equipment prior to installation.

**Develop an end-to-end network and user acceptance test plan:** The NTT DATA engineering teams will prepare a network acceptance and a user acceptance test plan. This will be sent to the Customer project lead for approval and be used as a basis for the deployment phase sign-off from Customer.

**Phase 3: Project Build**

The Project Build phase involves the physical installation and turnup of the PWN Network infrastructure which is described below.

**LAN and power construction:** Following the pre-defined project schedule, Customer will be responsible for building out and extending the LAN infrastructure required to support the PWN equipment. This can involve installing additional access switches, aggregation switches, and core switches across the facility; extending and pulling additional category and fiber cables to feed indoor and outdoor access points; and installing mounts, brackets, or racks in the main distribution frame (MDF) and independent distribution frame (IDF) rooms as required. In addition to this, Customer would be responsible for providing power locally at the designated MDF and IDF closets (with cooling) and finalized outdoor access point locations if not currently available. The NTT DATA project manager will work with the Customer project lead and coordinate any required support with the internal NTT DATA teams as required. The timelines will be reviewed and adjusted if required with the participation of all parties involved.

**Network and firewall configuration:** The NTT DATA network engineering team will work in close coordination with the Customer IT and security teams to configure the IP settings of the LAN infrastructure, set up the firewall configurations for internal and external applications and entities, set up the VLANS required, and set up additional network security policies as required. This process step supports the smooth integration of the PWN infrastructure once installed and turned up.

**Install Edge (HA core servers):** The Customer team will install the high availability 5G Edge servers at the Customer-designated MDF/server room in coordination with the NTT DATA project manager. This will involve completing the physical cabling and IT configurations by the Customer IT team.

**Install all access points:** The Customer team will physically install all of the indoor and outdoor access points required to provide P5G service all across the facility. Customer will connect the pre-terminated cables to establish the physical connectivity to the 5G Edge and connect to the power source.

**Phase 4: Project Deployment, Testing, and Acceptance**

		<p>The end-to-end network acceptance and user acceptance test plan is executed and reported at this stage of the project.</p> <p>Network commissioning and integration: Once the physical equipment has been installed and powered up, and the IP configurations have been completed, the commissioning of the PWN solution will be conducted by the NTT DATA engineering team. After this, the end-to-end network components will be integrated along with any internal and external applications, the Network Orchestrator platform, and—in the United States only—the spectrum access system (SAS).</p> <p>Network performance optimization: NTT DATA will perform testing and data collection walks to fine-tune and optimize network performance. We will also turn up and test pre-defined Customer-provided end-user devices and applications on the network to verify connectivity, smooth handover, and performance within the scope of the network service.</p> <p>Execute network acceptance plan: The pre-defined network acceptance test plan that was created during the project definition stage is executed by onsite NTT DATA engineers and the network is further optimized as required. A final acceptance report showing the details of the tests conducted and the network performance is shared with the Customer project lead for review and approval.</p> <p>Execute user test plan: The pre-defined user test plan that was created during the project definition stage is executed by the Customer technical team using their end-user devices and applications. The NTT DATA technical team will assist Customer with user acceptance testing as required. The final user acceptance test report will be created by the Customer technical team and will be shared with the NTT DATA project manager upon completion.</p> <p>Training on Day 1/N operation: NTT DATA will provide the pre-determined Customer personnel with the required training on the PWN operations. This can involve access to the Network Orchestrator to view network component health, user information, add/remove users or create a user group, assign micro slices or priorities to users as required, and other functions.</p> <p>Close-out package: NTT DATA will create the network closeout package which will include the as-built document, network configuration settings, user settings, access information, solution documentation, and training documentation (or video) that will be shared with Customer and with our managed services team.</p> <p>Knowledge transfer: The close-out package created during the previous phase is shared with the managed services team along with all of the acceptance reports and any other pertinent site-specific information necessary. All of the network access information is securely transferred over to the managed services team.</p> <p>Phase 5: Managed Services After obtaining acceptance and approvals by the Customer team on all the test reports and closeout package, the NTT DATA project delivery team will transition to the Global Operations Center for ongoing Day 2 support.</p>
73	Describe your solutions, services, and qualifications, for preventing, mitigating, and responding to private wireless network intrusions and attacks.	<p>NTT DATA PWN Network solution is secure by design. Using Network Slicing technology, NTT DATA's PWN Network can not only segment but have separate security policies for groups of devices/applications as granularly as on a per-flow basis, over the air, and on the wire. Network Slicing also adds an extra layer of security to corporate networks. Our proposed solution offers the industry's most comprehensive suite of security capabilities across the full internet protocol (IP) stack, giving Enterprises' the benefit of the highest levels of user confidentiality and data privacy possible from the RAN across the enterprise L2/L3 LAN. Benefits to Enterprises' include:</p> <ul style="list-style-type: none"> <li>Full end-to-end control over data and data path management</li> <li>Greater data integrity and confidentiality with strong L1-L7 end-to-end encryption</li> <li>Enhanced flexibility and security to the authentication process with 5G-AKA and EAP-AKA</li> <li>Elimination of inconclusive endpoint profiling through advanced SIM security</li> <li>Strong user privacy with IMEI (international mobile equipment identity) to integrated circuit card identifier (ICCID) locking, and subscription concealed identifier (SUCI) support to prevent unauthorized access.</li> <li>Mitigation of man-in-the-middle attacks and spoofed or rogue devices.</li> <li>Direct accessibility to vulnerable non-cellular end devices through intelligent 5G routing</li> <li>Consistent accessibility to, and policy enforcement for, critical devices with static IP pools</li> <li>Secure transport layer security (TLS) tunnels to cloud-based management</li> </ul>

## RAN(Nokia) Security Features

Nokia RAN solution provides security on the multiple aspects of the solution:

### Security management in NetAct

NetAct security management can be used to manage network element user accounts, network element certificates, and security of the data, user, and software. User authentication and operations are secured. Security alarms and logs inform the user about any security-related events.

### Air-link security

In the network security technology, the air-link security defines access and non-access stratum security.

The air-link security can be divided into two areas: access stratum (AS) and non-access stratum (NAS).

The purpose of AS security is to protect the message delivery on the Uu interface (interface between UE and BTS). The protection is achieved through integrity protection and ciphering of RRC signaling in the C-plane and IP packets in the U-plane.

The purpose of NAS security is to protect the delivery of signaling messages between UE and a mobility management entity (MME) or access and mobility management function (AMF) in the C-plane. This is achieved through ciphering and integrity protection.

The ciphering and integrity protection of the messages is performed by the core network and UE, the BTS only transmits the messages.

Additional features and packages may be required depending on all the security aspects that need to be covered.

### Transport security

In the network security technology, transport security is related to minimizing threats to the IP data transmission.

The data transport between network elements is performed using the IP protocol. The IP delivers packets from the source element to the destination element based on the IP addresses in the packet headers. There are two methods of securing the IP transmission:

- Transport Layer Security (TLS) protocol
- Internet Protocol Security (IPsec)

### User accounts security

Ensuring protected access to the BTS and other network elements (NEs) is one of the top security issues. Unauthorized access can lead to serious problems such as network reconfiguration by a third-person or a theft of confidential data.

User authentication can be done in two ways:

- Locally at the BTS, which has its own database for local accounts (the local user accounts in various NEs are independent from one another)
- Using centralized authentication server

### BTS security

In the network security technology, the physical security of each BTS, including files and credentials that are stored in there, is achieved through several dedicated procedures.

The BTS security features provide protection from network-originated threats to each BTS in the network. They also define mechanisms for sensitive data protection (such as user passwords, private keys, certificates) and execution of secure software. These features work on the BTS-level, meaning they aren't connected with any other network elements such as UE or security gateway.

Key BTS security features include:

- Software verification and secure boot

The BTS always checks the origin and integrity of every software package before installation, as well as authenticity of modules connected to it.

- File encryption

The BTS stores sensitive credentials, such as user passwords, software keys, and other files. Because of their confidential nature, these credentials are encrypted and stored within a secure environment.

- Firewall

The BTS has an integrated software firewall that can't be turned off. It prevents the BTS from traffic, services, and applications to or from unauthorized hosts.

- Traffic filtering

The BTS provides an IP packet filter service that protects the site support equipment from harmful network traffic, but also protects the network from unintended traffic from this interface.

### Certificate management in BTS

Certificates are files that allow network elements to identify themselves and securely exchange information over the network.

A digital certificate is an electronic file that allows a person or a network element to exchange information securely over the network using the Public Key Infrastructure (PKI). It can also be referred to as a public key certificate.

A digital certificate provides identification information, is forgery resistant, and can be verified because it's issued by an official, trusted agency. The certificate contains:

- The name of the certificate holder
- A serial number
- An expiration date
- A copy of the certificate holder's public key, used for encrypting messages and verifying digital signatures
- The digital signature of the certificate-issuing authority (CA), so that a recipient can verify that the certificate is real

The standard used for digital certificates is X.509.

#### Core (Cisco) Security Features

For more details of Cisco Core Security features ref:

<https://www.cisco.com/c/en/us/products/collateral/wireless/cisco-private-5g-solution-wp.html>

#### Integrating with on-premises enterprise LAN

Enterprise premises security architectures vary depending on the specific enterprise deployment venue and characteristics. The Cisco Private 5G solution is designed to be easily integrated into enterprise security architectures.

Key considerations for integration into existing enterprise security designs include:

- Network connectivity to Top-of-Rack (TOR) switches: Cisco edge node and Radio Access Network (RAN) components need to be connected to the TOR switch.
- Placement of firewalls and traffic inspection engines: It's assumed that Cisco components are placed in a secure and firewall-protected zone. Design of the zone and multiple zones of security is the responsibility of the customer or partner.
- Traffic segmentation policies and assignment of segments (VLANs) to Cisco Private 5G components: Separate segments are required for the packet core management and control and data plane, as well as radio network connectivity. These segments must be allocated and configured by the customer or operating partner.

Secure operation of the Cisco edge node can be organized into three main categories:

- Secure management plane, consisting of configuration and monitoring of the various components, and collection and secure storage of enterprise-specific configuration data
- Secure control plane, consisting of device authentication and authorization, session connectivity, and mobility control
- Secure user plane, consisting of user data exchange between device, radio, and enterprise LAN and protection of enterprise-specific data within the enterprise security domain

In addition to the Cisco edge node, on-premises components of the Private 5G service include radio and other devices, each of which has their own unique security requirements.

#### Management plane security

Management of the Private 5G components is accomplished by the Private 5G Edge Orchestration function, which may use agents deployed on the Cisco private cloud or on the public cloud such as AWS.

The interface between the on-premises edge node and the Edge Orchestration function is for delivery of lifecycle management information of the network functions. It also provides visibility of the on-premises components' network health and enables secure and consistent Continuous Integration/Continuous Deployment (CI/CD) experience for the enterprise use of the network functions. Cisco operation will ensure version control and new feature deployment of the converged 4G/5G edge node easily and securely. After initial bootup, the on-premises agent initiates connection to the cloud via a well-known URL and establishes a TLS connection. Once the TLS connection is established, a session is created using the device's credentials that were established during the device onboarding phase. Upon establishment of a session, local agents at the edge securely communicate with services session running in the cloud using keys created during session establishment. Agents on the edge use this connection to download edge configuration data and operational actions and to upload metrics.

The communication toward the cloud leverages HTTPS (TLS 1.2 using REST APIs), and the connection supports well-known HTTP proxy configurations.

#### Control plane security.

The Cisco edge node allows the network functions on the edge to communicate with those on the Control Center cloud in a secure manner. Once a secure connection is established, session(s) keys are exchanged and used to validate the session and create a session ID that can be used by NFs to communicate. All control plane messaging is initiated from the

packet core on-premises and secured via HTTPS. Cloud-initiated messages are retrieved by the edge node using a pull mechanism to avoid inbound connections from the cloud.

User plane security

Inherent to the 3rd Generation Partnership Project (3GPP) architecture, the User Plane Function (UPF) terminates and anchors the private 4G/5G user plane traffic, ensuring that only devices that have been authenticated, authorized, and allocated an IP address are able to transmit the data through the network. Any traffic that's identified as malformed or contains flows initiated from the network side without corresponding device-initiated flows are dropped.

Firewall placement and user plane

It's highly recommended that an external firewall is deployed to ensure protection of the private WN when possible. While the firewall is not part of the preintegrated solution, Cisco does offer optional firewall capabilities that could be integrated by the managed service provider based on specific enterprise requirements.

In addition, optional security gateways could be deployed to terminate traffic originating from the RAN.

DDoS protection of the user plane

It is recommended to deploy an external Distributed-Denial-of-Service (DDoS) protection mechanism when required and feasible. Like the firewall, this optional capability can be provided by Cisco and integrated by the managed service provider. Various DDoS protection mechanisms exist, including on-premises (for application layer protection and volumetric attacks), always on in the case of a high-risk environment, on demand for scenarios where enterprises may want to deploy once a potential attack is detected and could sustain a brief outage, or a hybrid solution for a combination of the above scenarios.

Given that 5G could open a higher threat surface due to the inherent nature of higher bandwidth toward the device, it's recommended to deploy DDoS protection in conjunction with a secure Domain Name System (DNS) mechanism.

Data encryption of the user plane

It is assumed that the device and the user plane are within a trusted network domain, but if needed, additional data encryption capabilities could be deployed inline. Traditionally, this capability is not leveraged due to the high volume of the user plane transmitted, but for a controlled set of environments, it's possible to deploy a security gateway between the radio network and user plane as an optional capability. Note that data plane traffic between the device and RAN is encrypted and its integrity is protected. The keys used for data plane encryption and integrity protection are different from those used for the signaling plane for added security.

74 For each of the industries listed below (as applicable), describe your understanding of the typical challenges, opportunities, use cases, and solutions for:  
 -Airports  
 -Cities/Governments (local and federal)  
 -Universities/Stadiums  
 -K-12  
 -Healthcare  
 -Ports/Warehouses  
 -Other

Response is summarized in a tabular format as attachment.

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75	Describe your PWN solutions regarding IoT use cases and associated deployment maturity (ex: conceptual, lab, pilot in-progress, pilot complete, permanent deployment in-progress, permanent deployment fully commissioned, and project closed out). Describe your experience with both simple and complex IoT deployments.	<p><b>Solution Architecture</b></p> <p>NTT DATA 's proposed PWN network will integrate an industrial internet of things (IIOT) communication based on LoRaWAN network. IoT devices / endpoint with Bluetooth enabled will be connected to LoRaWAN gateway completing Front Haul transport layer and backhaul will connected to PWN Cellular radio.</p> <p>LoRa is low power physical layer protocol operates on license-free spectrum uses spread spectrum modulation and supports long-range communication at the cost of a narrow bandwidth. It uses a narrow band waveform with a central frequency to send data, which makes it robust to interference.</p> <p>Devices such as single board computers or LoRa probes can be used to combine the flexibility of Bluetooth with LoRa's longer range. Such devices scan for Bluetooth devices and send the data via LoRa or LoRaWAN to a receiving LoRa/LoRaWAN gateway. The Bluetooth scanning usually has to perform filtering to limit detection to the Bluetooth devices of interest.</p> <p>The radio channel access in LoRaWAN is based on the ALOHA protocol: (i) an ENs wakes up and sends a packet on a selected radio channel; (ii) one or more GWs, within the transmission range of the node, receive the packet; and (iii) forward it to the NS, which eventually processes the received packets.</p> <p>To participate to LoRaWAN operations, a LoRa-compliant node must be registered and activated through the NS. LoRaWAN defines two activation methods: (i) Over-The-Air-Activation (OTAA), which is the most secure as the EN sends a join-request frame to the NS which, in return, (potentially) sends a join-accept frame; and (ii) Activation-By-Personalization (ABP), in which there is no join procedure, since the end device has all the required configuration parameters for the activation.</p> <p><b>Deployment Maturity</b></p> <p>NTT Data has conceptualized and tested IoT Use cases in lab environment. PoC were successfully demonstrated to NTT DATA's client in a lab environment.</p> <p>The Concept and Architecture designed is applicable to large PWN networks as well and can be implemented with ease.</p> <p>Our proposed PWN solution has interworking capability with many critical devices in the industrial enterprise verticals, including tablets, smartphones, gateways, and ruggedized computers from vendors like Apple, Zebra, Digi, and Sierra Wireless, which are already PWN certified. The NTT DATA Team works with manufacturers like Apple and Zebra, collaborating on the development of advanced features for PWNs, like adding mobile device management (MDM) support, geofencing, and eSIM support</p>
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76	Describe your solutions, services, and best practices for designing and deploying multiple geographically separated sites, as one PWN network (ex: two airports owned and operated by a city, extending enterprise systems) and as separate networks.	<p>Solution</p> <p>NTT Proposed Cisco Core solution offers the possibility of seamless multi-site operation. With multi-independent sites being onboard and control from a central location.</p> <p>This leverages a central “control center” where all can be managed and keeping the information about SIM sync across all the sites.</p> <p>Cisco PWN includes the capability to access the internet and use over the top (OTT) services. The IP Multimedia Sub-system (IMS) components are not included on baseline offer but use of data and over-the-top voice services are supported at the same level of functionality and adds military grade encryption and multi-access capabilities i.e. runs across all IP type networking.</p> <p>Additionally on RAN side, Nokia RAN solution can be deployed as multiple geographically separated sites that is transparent for the solution. For such type of deployments, a single Manta Ray can be deployed to manage all the sites. For these cases a IP connectivity is required between the RAN and MantaRay. Wired application hosts, the same Cisco Catalyst switching infrastructure can be used to minimize the latency between the MEC application hosts and the Cisco UPF.</p> <p>Services</p> <ul style="list-style-type: none"> <li>• As part of Professional services during pre-planning phase, the PWN network architecture will be defined for deploying multiple sites governed by a Central location.</li> <li>• Solution Architecture and network architecture will be defined for keeping each PWN sites secured as separate network and interconnected through Control Center at central location.</li> </ul> <p>Best Practices</p> <ul style="list-style-type: none"> <li>• Recommended best practices is to treat each Site as individual E2E network by its own with RAN and Core NF on-premises only Management plane will be on Cloud at a Centralized data center.</li> <li>• For low latency /Mission-Critical Use case the User plane should be kept on-premises closer to the end-points, and Control Plane can be located in MEC on a Edge Data Center. The proposed solution has Control plane and User plane in one single core.</li> <li>• Secure TLS tunneling should be in place for connecting with the Central Control Plane.</li> <li>• Network Slicing - Use case based NF slices assignment to satisfy capacity , throughput requirement and QoS based Traffic Segmentation should be implemented.</li> </ul>
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77	<p>Describe your products and services offered for:</p> <ul style="list-style-type: none"> <li>-Maintaining seamless and continuous connectivity of EUDs</li> <li>-Traversing between PWNs of the same and different PWN manufacturer solutions</li> <li>-Ownership by the same (ex: delivery trucks driving between local, regional, national warehouses) and different Enterprise (ex: aircraft interoperability between airport PWNs)</li> </ul>	<p>Maintaining seamless and continuous connectivity of EUDs EUDs will be connected to PWN radios via wireless network which will be backhauled to Core network, The NTT DATA-proposed RAN solution is highly reliable, built to be deployed in industrial environments, and has a high mean time before failure (MTBF) which makes it highly resilient, and an ideal solution for Sourcewell's Participating Entities. NTT DATA will design and deploy a PWN Network solution at each of Sourcewell's Participating Entities's sites such a way that provides seamless coverage and required capacity to enable smooth mobility for end-user devices and applications operating on the network. This will allow the Sourcewell's Participating Entities staff/End-user using mobile devices and other autonomous mobile devices, such as robots, to move around the Target coverage area effortlessly while staying connected to the PWN Network. The outdoor radios will be planned with a 20-25% coverage overlap, and in some cases, even more. This is beneficial in situations where one radio site fails, as neighboring radio sites can use their self-organizing network (SON) functionality to provide coverage and capacity for the affected area. This approach minimizes network performance issues and allows Sourcewell's Participating Entities to continue operations in most of the Target Coverage area while the problem is being addressed. During the site survey process, NTT DATA will identify critical areas in each facility and plan for coverage and capacity overlap to ensure maximum network resilience for Sourcewell's Participating Entities's Target Coverage Area operations. In addition to this, we can use Network Slicing to provide specific quality of service (QoS) for business-critical applications like SAP as well as specific groups of devices operating on the network. Our PWN Network will allow Sourcewell's Participating Entities to segment and have separate security policies for groups of devices or applications as granularly as on a per-flow basis, over the air, and on the wire.</p> <p>Traversing between PWNs of the same and different PWN manufacturer solutions Traversing between PWNs of the same and different PWN manufacturer solutions will be Private-to-Private roaming, the Core architecture already supports the capability utilizing the centralized SDM. Sourcewell's Participating Entities would need to enable specific edge nodes or locations to be enabled for roaming. For example, if one of Sourcewell's Participating Entities supplier has a PWN network and Sourcewell's Participating Entities employees need access on that PWN for roaming while visiting the facility (and access private resources), the supplier IT could enable Sourcewell's Participating Entities SIMs to be enabled for roaming. With the centralized architecture and potential to use a single PLMN or a dual PLMN, multiple flavors of Private-to-Private roaming can be supported. Ownership by the same (ex: delivery trucks driving between local, regional, national warehouses) and different Enterprise (ex: aircraft interoperability between airport PWNs)</p> <p>PWN network Owned by Same entity with Sites at different locations can be converged and managed at a centralized location, Mobility of EUDs will be governed by Core Network functions. NTT's Proposed Cisco Core solution offers the possibility of seamless multi-site operation. With multi-independent sites being onboard and control from a central location. This leverages a central "control center" where all can be managed and keeping the information about SIM sync across all the sites. For the use case in the Question : Delivery Trucks moving around different geographical boundaries can have multiple PLMN set on the single NTT Provided sim card . For the Use Case in the Question : Aircraft interoperability can be provisioned provided roaming agreements are in place to use PWN for different Enterprise . NTT Provided single SIM card have the capability to provision multiple PWN PLMNs.</p>
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78	Describe how your solutions and offerings will support future load-sharing of wireless communications between WiFi, Distributed Antenna Systems (DAS), CBRS, and other communications technologies.	<p>Providing seamless connectivity for mobile devices roaming between WiFi and a PWN is a critical aspect for many PWN deployments. In several of our existing PWN deployments, mobile devices roam between WiFi and PWN and we have extensive experience in this area.</p> <p>Foreseeing the Y-o-Y growth in data traffic and throughput requirement, NTT DATA's recommended approach for Load sharing with legacy technologies will be based Policy implementation in Cisco Core Network with Cisco ISE .</p> <p>In particular, the integration with a Cisco ISE instance allows an enterprise operator to control the following:</p> <ul style="list-style-type: none"> <li>Deny access to the PWN network.</li> <li>Allow access to the PWN network, and optionally push parameters for the associated PDU sessions such as the VLAN</li> </ul> <p>Conditions can be defined based on time and date, posture, profile, or network conditions and events. For example:</p> <p>A profiling condition can be defined to filter all Apple devices, all Android devices. Sophisticated profiling rules are used to establish the validity of such conditions, leveraging for example DHCP host names, other IP user agents or many other sources.</p> <p>Network conditions can apply to either user endpoints or network devices. They can be used to check for IP or MAC addresses, or a caller-ID / called-ID. Device names can also be checked to fulfil a condition. With device profiling and Network condition Access to can be controlled Nokia RAN solution covers CBRS and other 3GPP bands and can be integrated with Wi-Fi and other communications technologies however this integrating need to be performed at the core level.</p> <p>Additionally on RAN network Load sharing of End User Devices on PWN and legacy network will be governed by defining Load balancing strategies for IDLE mode and Connected Mode UEs.</p> <p>Cell reselection priorities can be set such a way that EUD camps maximum on PWN network which will be enabled with high capacity and performance. Connected mode mobility parameters can be set appropriately to do load balancing among various ARFCN's of different wireless technologies.</p>
79	Describe how your PWN can operate and be managed as a converged, unified, and integrated extension of other enterprise telecommunications networks and infrastructure solutions (cabled and wireless).	<p>NTT's proposed Private Wireless Network architecture supports extensive integration with an existing Enterprise network. This includes, but is not restricted to,</p> <ul style="list-style-type: none"> <li>Use of existing Cisco Catalyst switches to connect Nokia RAN, and Private PWN Core components to the enterprise network.</li> <li>Leveraging Cisco ISE to ensure policies are applied consistently throughout all types of access networks (e.g., Wi-Fi, Private PWN, wired)</li> <li>Re-using existing firewalls or other security mechanisms in the LAN / Campus to protect network access.</li> </ul> <p>Nokia RAN solution is 3GPP complaint and provide an IP connectivity layer that can be integrated with other enterprise telecommunications networks and infrastructure solutions (cabled and wireless). The actual integration will be performed at the Core Level leveraging Cisco ISE functionality.</p> <p>The integration of a NTT proposed PWN access network into a pre-existing, Enterprise-managed Cisco ISE Policy platform is particularly noteworthy. The integration allows IMSI/IMEI information to be passed from the Cisco PWN core into Cisco ISE. This allows enterprise operators to author policies against PWN end user devices / SIMs to align with the corporate policies applied to other access networks. During the secondary authorization process in PWN, a RADIUS access request message is sent to Cisco ISE, encapsulating the relevant user / device information such as IMSI / IMEI. Cisco ISE can thus apply a policy, for example rejecting access and issuing a RADIUS Access Reject message. Alternatively, Cisco ISE may respond with a RADIUS Access Accept message which can then provide further parameters to regulate the PWN end user device, e.g. a RADIUS VSA with a VLAN, or a Secure Group TAG (SGT).</p>
80	Describe your ability to integrate with distributed antenna systems.	<p>Nokia's portfolio with AirScale Indoor Radio, is a solution design that provides an indoor coverage with better performance than a DAS system (distributed antenna systems).</p> <p>However in case DAS integration is required, an indoor Radio with external Antenna can be proposed and integrated to an existing DAS, taking into account the DAS operational spectrum.</p>
81	Describe your PWN solutions regarding IoT use cases and associated deployment maturity (ex: conceptual, lab, pilot in-progress, pilot complete, permanent deployment in-progress, permanent deployment fully commissioned, and project closed out).	Repeated Question ,Refer Q.75
82	Describe your approach, process, and timeline for testing and implementing software updates to the PWN.	NTT DATA provides remote software patch updates for Managed Devices as deemed necessary by NTT DATA to support PWN infrastructure. If the vendor releases security updates or patches and NTT DATA determines

such patch, we will deploy the appropriate updates as soon as possible. For software patch updates intended to fix a known issue causing critical degraded performance, we will perform the patch update installation via remote access in accordance with the change management processes. NTT DATA tests all software updates and patches in their integration labs before certifying them for release to production environments.

If the vendor releases a critical security vulnerability update and NTT DATA determines it is necessary, then we will deploy the security update as soon as reasonably possible.

In addition to software patches and upgrades deemed necessary by NTT DATA, client may request additional patches and upgrades. Software patches and upgrades requested by client and agreed upon by NTT DATA will be performed as a project.

Before the implementation of any software, NTT DATA will inform client and obtain their approval as part of the change management process. We will make sure to follow the change management control procedure agreed between client and NTT DATA and implement patches with the least impact on client's business and operations.

OEM Specific Product updates : NTT supplied product portfolio will also be executing solution specific upgrades for Cisco Core and Nokia RAN as explained below.

#### Cisco Core Upgrades

Cisco provides regular upgrades for PWN. There are two types of PWN upgrades:

Cloud Component Cisco performs cloud component updates on a regular basis. These mandatory updates require no user action. Cisco sends emails to notify service provider administrators and enterprise account administrators of the cloud upgrade. The upgrade to the cloud component doesn't impact the service provided by Cisco solution.

Edge Component Edge upgrades also happen on a regular basis. Cisco performs these upgrades, but the service provider administrator or an enterprise account administrator must first set up an upgrade schedule before the upgrade can take place. Cisco edge solution is deployed in the Highly Available mode therefore upgrade to any NF on the edge have no impact on service.

Cisco advises NTT about upcoming updates. Using the change management process, NTT will work with Client to obtain necessary approvals. NTT will then work with Cisco to perform the upgrade during the selected date and time window.

During the upgrade process, Client may notice reduced responsiveness and, possibly, a short period of downtime. The upgrade scheduling page shows the anticipated degradation period. Device firmware should attempt to reconnect to the network to minimize disruption if a session drops.

#### Typical Upgrade Cadence:

Upgrade cadence for PWN cloud management  $\geq$  3 weeks

Upgrade cadence for PWN edge appliance = 12 weeks

Enterprise customers will choose a maintenance window for their edge upgrades:

Upgrade cadence for PWN cloud proxy = 12 weeks

Emergency releases (PSIRTs, fixes, patches) may require an interim upgrade

All upgrades are mandatory. When an upgrade is scheduled, Cisco provides a deadline for completing the upgrade. Upgrade schedules can also be defined as recurring.

The impact on live sessions depends on:

whether a redundant or non-redundant Cisco Edge Appliance architecture is chosen. In case of redundant core upgrades can be done without session loss.

the selected upgrade windows as agreed by the change management process.

#### Nokia RAN upgrades

Firmware SW update of Nokia 5G RAN equipment is achieved throughout Manta Ray (Nokia Control Platform). The gNodeB SW comes as a single package that contains the following:

Platform package: this includes OS, Kernel, virtual systems such as Docker and other system applications.

Application package: this is further divided into:

Helm package: This includes the Helm Chart for the All-in-One gNodeB.

Application package: This includes Docker images related to CU-CP, CU-UP, DU, and RU.

Cisco for any Core and Nokia for RAN software related advises NTT about upcoming updates. Using the change management process, NTT will work with Customer to obtain necessary approvals. NTT will then work with Cisco

		<p>to perform the upgrade during the selected date and time window. NTT Provided RAN and Core SW is extensively tested to minimize any issue when implementing a SW update. NTT DATA tests all software updates and patches in their integration labs before certifying them for release to production environments.</p> <p>Before the implementation of any software, NTT DATA will inform Enterprise and obtain Enterprise's approval as part of the change management process. We will follow the change management control procedure agreed upon between Enterprise and NTT DATA and implement patches with the least impact on Enterprise's business and operations.</p> <p>Also Nokia is part of Network Vendors IoT forum (<a href="http://www.nvot-forum.org/">http://www.nvot-forum.org/</a>) that regularly perform integration test between different vendors RAN and Cores to verify interoperability and reduce integration issues within multi vendor solutions.</p>
83	<p>List and describe your various core solution options offered (ex: on-premises, cloud, hybrid, distributed, core services platform) and key differentiators. For each solution, describe the your experience deploying and managing the solution.</p>	<p>NTT DATA Proposed Cisco Core solution offer on Hybrid core solutions and currently do not offer completely on-prem solution.</p> <p>Cisco Private PWN solution is based on a hybrid architecture with some components deployed on premises and other hosted in the cloud, both public and private. The next section describes the key components of the architecture and their placement.</p> <p><b>Cisco Converged 4G/5G Packet Core</b></p> <p>The Cisco Private 5G solution supports both 4G and 5G Packet Core functions fully integrated onto a single Cisco UCS platform. Traditional 4G functions such as Mobility Management Entity (MME), Serving Gateway (SGW), and PDN Gateway (PGW) are fully supported. Cisco's Converged Packet Core also supports a complete implementation of the 5G Stand-Alone (SA) Packet Core functions on the Cisco UCS platform. Thus, Sourcewell's participating entities will have the flexibility to deploy 4G initially and upgrade to 5G without painful hardware upgrades.</p> <p>The Cisco PWN converged core functions are delivered in a hybrid cloud model. The UPF, AMF, SMF, and MME are hosted on the edge in the Cisco PWN Edge Appliance. The Cisco PWN Edge Appliance is based on a Cisco UCS-C220 server and is assumed to be deployed in each site requiring private wireless access. Additional server types will also be available in the future. The UDM/UDR, AUSF, CHF, and HSS are currently hosted in the Cisco Cloud.</p> <p><b>Cisco Control Center</b></p> <p>Overall management and operations of the Cisco-powered Private 5G architecture is provided by Cisco Control Center. It is a cloud-based connectivity management platform that addresses the needs of enterprises and Service Providers with connected devices as well as the mobile network operators who support them. Cisco Control Center is the primary operations environment for</p> <ul style="list-style-type: none"> <li>Overall Solution Architecture management</li> <li>Private 5G Service Management</li> </ul> <p>For Private 5G Service management, Cisco Control Center offers Life-cycle management of wireless end-user device SIMs. Control Center enables Enterprise customer on boarding and automated provisioning and rate plans. It also ensures fast account onboarding and easy account management. MSP get to view the aggregated view of all Enterprises on boarded, define rate plans supported, SIM management and ordering specific to enterprises.</p> <p><b>Cisco Cloud Native Deployment Platform</b></p> <p>The Cisco Cloud Native Deployment Platform (CNDP) is the platform used by Cisco in its role as an as-a-service operator to support the PWN Architecture. It complements the management and operations capabilities of Cisco Control Center by focusing on the deployment and automation of all the required components of the Private 5G deployment.</p> <p>This functional block includes:</p> <ul style="list-style-type: none"> <li>Automation, configuration and management of the hosts that are required to run some of the virtualized NFs for the 5G Core at a customer site. Such management includes automation of the host KVM and operating system on Cisco UCS-hardware, installation and management of the Kubernetes (K8) environment for microservices, managing K8 / hardware clusters, or persisting the host configurations.</li> <li>Deployment of the virtualized 5G Core NFs, i.e., instantiating the respective virtual machines, configuring the connectivity of these NFs to the physical ports of the hosting platform, monitoring the liveness of the NFs and reacting to possible outages (e.g. re-starting the NFs after a failure).</li> <li>Exposure of the relevant APIs to execute the CNDP capabilities without the GUI, as well as support for a CI/CD pipeline</li> </ul> <p><b>Cisco Converged 4G/5G Packet Core</b></p> <p>The Cisco Private 4G/5G Core is delivered in a hybrid deployment model where some of the network functions (NFs) are hosted on a Cisco Edge Appliance on-premises, whereas others are hosted in the Cisco Cloud. For both Cisco assumes the responsibility to maintain the operating systems or</p>

virtualization environments of the hosts.

The Cisco converged 4G/5G packet core provides the 3GPP Session management and data forwarding functions for the private 5G access network. These functions include:

UPF The UPF is responsible for packet routing and forwarding, packet inspection, QoS handling, and external PDU session for interconnecting Data Network (DN), in the 5G architecture. Specifically:

Anchor point for Intra/Inter-RAT mobility (when applicable).

External PDU Session point of interconnect to Data Network.

Packet routing and forwarding.

User Plane part of policy rule enforcement.

UPF is a distinct Virtual Network Function (VNF) that offers a high-performance forwarding engine for user traffic. Using Vector Packet Processing (VPP) technology, the UPF achieves ultra-fast packet forwarding while retaining compatibility with all the user plane functionality.

AMF Cisco Access Management Function (AMF) is responsible for the Access management with the supported individual functions on a per-device basis. AMF is responsible for handling connection and mobility management and terminates the connections towards RAN and devices.

SMF Cisco Session Management Function (SMF) is responsible for the session management with the supported individual functions on a per-session basis. Specifically:

Provides session management. For example: session establishment, modification and release, including the tunnel between the UPF and the AN node.

Provides UE IP address allocation and management, which includes an optional authorization.

Configures Traffic Steering at UPF to route traffic to the corresponding Data Network (DN).

For the current deployment, a 4G/5G Converged Core from Cisco will be leveraged for SMF. The SMF network function consists of loosely coupled microservices together. The microservice decomposition is based on a three-layered architecture consisting of Protocol and Load Balancer services (Stateless), Application services (Stateless), Database services (Stateful).

The 4G/5G Converged Core architecture supports Serving Gateway Control (SGW-C) as well. Signals controlling the data traffic are received on the S-GW from the MME which determines the SGW that will best serve the UE for the session. Every UE accessing the EPC is associated with a single SGW-C.

MME Cisco Mobility Management Entity (MME) is part of the 4G mobile core network. The MME resides in the EPC control plane and manages session states, authentication, paging, mobility within access network (4G), roaming, and other bearer management functions.

HSS database that contains user-related and subscriber-related information. It also provides support functions in mobility management, call and session setup, user authentication and access authorization. AUC is part of the HSS to enable authentication of devices when the device is connected via 4G or 5G NSA systems.

UDM supports Subscription management, generation of 3GPP AKA Authentication Credentials, User Identification Handling, support of de-concealment of SUCI, Access authorization based on subscription data, UE's Serving NF Registration Management.

UDR supports storage and retrieval of subscription data by the UDM.

AUSF supports authentication and in the future support for Network Slice-Specific Authentication and Authorization.

CHF supports limited Charging capabilities to consolidate the accounting records.

In addition, a number of proxy functions are instantiated on the Cisco PWN Edge Appliance to help secure the communication between the on-premises and cloud-hosted solution components.

84	Describe your solutions for connecting end user devices that do not natively support PWNs. Note which of your solutions apply to 4G, 5G, and 4G/5G combined networks.	<p>For devices that do not have native 4G/5G support, NTT DATA will recommend gateways, routers, and bridges to be able to connect these unconstrained devices such as robots, IoT sensors, and desktops to the PWN. Connections could be via a wired connection or wireless connection between the unconstrained device and the gateway, router, or bridge. Below is the recommended option for connectivity.</p> <p>Connecting to LoRaWAN for non-cellular devices.</p> <p>Devices with Bluetooth connectivity can be connected to LoRaWAN Network which will be end point contact for User Device and LoRaWAN Gateway in turns connects to PWN network Radios of the PWN network, PWN Core will enable Policy associated to Device/User.</p> <p>We will establish a secure link between the 5G Edge and the enterprise network hosting the digital plant applications, internal CE applications, print documents, emails, and the Teams meeting application via the egress N6 interface of the 5G Edge. Additionally, NTT DATA can implement the Cisco ISE based policy control. As an example, many of our existing clients set up higher priority for Teams calls, specifically, for field technicians to video conference with experts at other locations.</p>
85	Describe your mobile edge computing (a.k.a. multi-access edge computing) (MEC) PWN solutions and their key differentiators. For each, describe your experience deploying and managing the solution, as well as associated use cases.	<p>The Cisco architecture allows the integration with Multi-access Edge Compute (MEC) clusters. This may be particularly relevant to deliver low latency services for time sensitive use cases.</p> <p>The Cisco Private 4G/5G packet core is delivered as a hybrid cloud architecture, where critical components like the data plane (UPF) or certain control plane functions (e.g. AMF, SMF) are hosted in one or more Cisco UCS servers. These servers are part of a MEC architecture.</p> <p>In addition, any servers hosting latency-sensitive applications can also be deployed in a MEC cluster adjacent to the Cisco Edge Appliance.</p> <p>Depending on the number of the required application hosts, the same Cisco Catalyst switching infrastructure can be used to minimize the latency between the MEC application hosts and the Cisco UPF.</p> <p>Edge computing implementation on Enterprises's core network and business applications is for use cases requiring low latencies,</p> <p>The one-way end-to-end latency of a Cisco Private 5G access network can be decomposed into</p> <p>the air interface latency,</p> <ul style="list-style-type: none"> <li>• Processing latencies on the RAN side</li> <li>• Transport latencies between the RAN and the PWN core</li> <li>• Processing latencies of the Cisco UPF</li> <li>• application processing latency</li> </ul> <p>Under the assumption that application traffic stays local to a site (i.e., that applications are hosted in a MEC cluster local to the PWN access network without traversing WAN links), the following can be achieved:</p> <p>Air Interface 0.5msec DL / 2.5msec UL</p> <p>Processing latencies on the RAN 1 msec DL / 1msec UL</p> <p>The transport latency between the RAN components and the PWN packet core can be designed to be in the microsecond range (~ 0.010ms) for each switch in the transport path</p> <p>The processing delay in the Cisco UPF is typically in the order of 0.300 ms</p> <p>The application processing delay is heavily dependent on the hardware characteristics of the host. The hypervisor architecture (and in particular the I/O part) of applications hosts is often a key contributor to delay if not properly designed (e.g., SR-IOV vs. virtual switches).</p> <p>Note that the above are guidelines and need to be validated based on a specific architecture proposed for Customer.</p> <p>NTT DATA has immense experience in deploying Low Latency Use cases using proposed MEC focused on below key areas</p> <ul style="list-style-type: none"> <li>• Connected/autonomous vehicles: MEC can enable access to crucial information for on-vehicle details and road conditions along with potential hazards to passengers/pedestrians/other road users shared directly with riders rather than interfacing with central cloud servers.</li> <li>• Enterprise AR/VR for maintenance and repair: MEC can help service and maintenance personnel by offering remote training with mixed reality content necessary for repairs and upgrades on the machines in real-time. This is a typical Industry 4.0 use-case leveraged by Digital Twin.</li> <li>• Massive virtualization at the Edge is being enabled by high performing computing platforms where CPUs, GPUs, storage, interfaces, etc. are being shared across all applications for maximum performance with minimum hardware.</li> <li>• Safety, security, availability, and reliability are being ensured by having a middle layer interface to the cloud servers.</li> <li>• MEC, with its unique ability to support mobility, can be combined with significant longer-term potential size of the applications (AR/VR, drone control, etc.), making it a point of strategic interest for telecommunication.</li> </ul>

- The Low latency mission critical application/devices are assigned with dedicated slices . Cisco Network slice capabilities are leveraged. The Cisco Private 5G architecture detailed in response to Question.83 currently supports slicing in the following ways:
  - To segment traffic between users / applications on the transport side, policies can be defined to force traffic into specific VLANs on the N6 interface. Such policies can conveniently be defined in Cisco ISE (which Enterprise may leverage also for its Wi-Fi and wired access networks). In the near future, such a segmentation can also be defined based on Cisco SGTs (Scalable Group Tags), which have campus-wide scope in a Cisco TrustSec or Software Defined Access (SDA) architecture.
  - Slicing of Private 5G Core NFs is supported by deploying specific Cisco Edge Appliances per slice on-premises (i.e., deploying another set of AMF/SMF/UPF/MME instances). Automation for such slices follows the same procedures as the for a non-sliced deployment.
  - Slicing support for the RAN will be supported in the architecture as a roadmap item in the solution. Cisco already has the respective capabilities in its packet core code base, in particular the ability to manually configure slices and signal those to the RAN components. Automation of this functionality with Cisco Control Center is being tracked on the Cisco Private 5G solution roadmap.

**Table 14B: Depth and Breadth of Offered Equipment Products and Services**

Indicate below if the listed types of equipment, products, and services are offered within your proposal. Provide an additional explanation in the text box provided, as necessary.

Line Item	Category or Type	Offered *	Comments
86	Assessment and strategy	<input checked="" type="radio"/> Yes <input type="radio"/> No	NTT Proposed solution are assessed based on <ul style="list-style-type: none"> <li>3gpp compliance and conformance test results.</li> <li>Network Performance and robustness.</li> <li>Best in class and proven track record of excellency</li> <li>High Availability solution and 3-cluster reductant core</li> <li>High Scalability</li> </ul> Service implementation Strategy are based on <ul style="list-style-type: none"> <li>Industry Best Practices.</li> <li>Well crafted phased project implementation plan for timely and efficient network deployment</li> <li>24x7x365 -Day -2 Managed services for Network operation and Maintenance.</li> </ul>
87	Network design, migration, and deployment, including network configuration and Spectrum Access System (SAS) registration	<input checked="" type="radio"/> Yes <input type="radio"/> No	NTT DATA will provide professional services to design, deploy, and test Enterprise's PWN Network. A detailed project plan will be presented during project kickoff with mutual agreement on the implementation plan for each site. NTT DATA's Professional Service delivery model has deployment procedure broadly broken down into three phases – (1) pre-deployment & planning phase, (2) installation phase and (3) post installation phase. We will assign a project manager as a single point of contact for overall project execution and governance. NTT DATA's project manager will create the deployment plan that outlines project schedules, details project risks, and provides project tracking, project status reporting, and opportunities for feedback from Enterprise. Periodic project progress will be reported on a weekly and monthly basis. Our project manager will also be responsible for highlighting any risks or dependencies during the course of project execution. During deployment, NTT DATA will provide these services to the Sourcewell's Participating Entities: <ul style="list-style-type: none"> <li>Detailed site survey</li> <li>Network design (radio frequency [RF] design and PWN core dimensioning) based on the information provided by Enterprise and gathered during the physical site survey</li> <li>Software installation of PWN Network infrastructure.</li> <li>CBSD registration on SAS.</li> <li>Turn up and commissioning of the PWN Network</li> <li>Integration of the PWN Network with Enterprise's enterprise local area network (LAN)</li> <li>Testing and optimization of the PWN Network</li> <li>Training and education of Enterprise's employees</li> </ul>

88	Acquisition and installation of needed equipment to support the private wireless network	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>The Installation Phase (Ref:Q.87) of NTT DATA's Professional Service delivery will include Equipment Procurement and Physical Installation of Equipment on Enterprise's site</p> <p>Procurement: Based on the approvals received from the customer during the pre-deployment phase (usually a Notice to proceed), we will proceed with the procurement of all equipment, materials and tools required to support the PWN. A Project Manager will ensure the procurement delivery and staging of equipment on site upon arrival.</p> <p>Installation: All the equipment and associated materials will be installed at the customer facility referencing the documents created during the pre-deployment and planning stage. This includes installing all the RAN equipment (radios, baseband units, etc.) Installing and staging the head-end equipment which includes the servers hosting the PWN Core, PTP Grandmaster units along with the GPS antenna on the Roof. LAN infrastructure such as the Aggregation switches, Core switch, access switches and Routers.</p> <p>Installation of the cable infrastructure that includes long runs of CAT6 (ethernet) cables, fiber cables, coaxial cables patch cords and fiber jumpers. Grounding all electronic equipment</p> <p>The NTT DATA Team will work with Enterprise contractors to install the cabling while extending the circuits from Enterprise switch(es) to NTT DATA-provided PWN radios, indoor access points, and the PWN Edge server cluster.</p>
89	Ongoing operations, maintenance, planning, expansion, and upgrading of the private wireless network and related components	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Network Operations and Maintenance will be part of NTT DATA 's DAY-2 Managed services. NTT DATA's Managed Services portfolio includes network monitoring, maintenance, and troubleshooting of Enterprise's PWN Network to maintain performance and high network availability. We have multiple global operations centers that provide seamless 24x7x365 support.</p> <p>NTT DATA Managed Services offers proactive support and service level agreement (SLA) management. Our service, outlined in the following table, offers full software updates, patches, and hardware warranty.</p> <p>Network Expansion in terms of extending coverage footprint beyond the Initial Target Coverage Area or to Cater Capacity requirements as In-fill sites will be taken as Ad-Hoc request and can be incorporated as a Part of Professional and Managed services through CCB(Change Control Board) as per the Business requirements. NTT 's Fully Managed Services characteristics are as below</p> <p>Remote Network Monitoring : 24x7x365  Response Times during Network Monitoring Hours:  SLAs  Guaranteed support times</p> <p>Suitable Use Cases : Mission-critical applications and devices that require full-time connectivity and upkeep (for example, remote location access, safety monitoring)  Included Services : Level 1, 2, 3 Managed Network Services</p> <p>Field Support  (as needed) :Break/Fix</p>
90	Related network component solutions, such as private wireless network (PWN) cores, SIMs, radio access networks (RANs), gateways, end user devices (EUDs), network management tools, and products	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>NTT 's Proposed End-to-End PWN comprises of full stack of Equipment to bring the PWN Live including Radio and Core components.</p> <p>Gateways can be provided based on information provided during project inception. Networking LLD with IP plan will be prepared and Gateways will be suggested for each Venue based customer specific inputs and Use cases.</p> <p>EUDs can be procured and supplied to enterprises as per the Use cases agreed during SoW signoff. EUD devices are currently out of scope of this proposal</p> <p>Network management tools like EMS for RAN is part of proposed solution. Cisco cloud hosted management plane provides capability for NF monitoring and management.</p>

Table 14C: Depth and Breadth of Offered Equipment Products and Services

Indicate below if the listed types of equipment, products, and services are offered within your proposal. Provide an additional explanation in the text box provided, as necessary.

Line Item	Category	Product/Service	Offered	Explain *
91	System Features and Capabilities:		<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>NTT Proposed PWN architecture have key components as Nokia RAN and Cisco Core. Nokia RAN products are inherently future-proof: for instance, Nokia radios from 2012 onwards can be upgraded to 5G by software, accelerating 5G rollouts. Nokia RAN combines the efficiency of Single RAN supporting 2G, 3G, 4G and 5G and the flexibility of cloud RAN and open RAN. Nokia ReefShark System on Chip enables high performance, capacity and energy efficiency. These capabilities all require scalable high performance radio access networks (RAN) for the connection of users and devices to the network. Cisco 3GPP-compliant Private 5G offers more than 5G connectivity. It provides application awareness and identity management to identify end devices and applications while aligning in-depth understanding for building use case-specific policy and security that is unmatched in the industry. NTT Proposed PWN solution portfolio provides the following benefits:</p> <ul style="list-style-type: none"> <li>Operational simplicity – Easy user interface for service and device visibility</li> <li>SLA management – Cloud-based configuration and monitoring services across all wireless assets</li> <li>Application awareness and identity management</li> <li>Trusted and secure</li> <li>Investment protection – Eliminates obsolescence</li> <li>Seamless software and firmware upgrades included</li> <li>Cisco leadership and expertise in enterprise, service provider, and cloud services</li> </ul>
92		Multi-tenant support (network segmentation/slicing)	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>The Cisco Private 5G architecture currently supports slicing in the following ways:</p> <p>To segment traffic between users / applications on the transport side, policies can be defined to force traffic into specific VLANs on the N6 interface. Such policies can conveniently be defined in Cisco ISE (which Enterprise may leverage also for its Wi-Fi and wired access networks). In the near future, such a segmentation can also be defined based on Cisco SGTs (Scalable Group Tags), which have campus-wide scope in a Cisco TrustSec or Software Defined Access (SDA) architecture.</p> <p>Slicing of Private 5G Core NFs is supported by deploying specific Cisco Edge Appliances per slice on-premise (i.e., deploying another set of AMF/SMF/UPF/MME instances). Automation for such slices follows the same procedures as the for a non-sliced deployment.</p> <p>Slicing support for the RAN will be supported in the architecture as a roadmap item in the solution. Cisco already has the respective capabilities in its packet core code base, in particular the ability to manually configure slices and signal those to the RAN components. Automation of this functionality with Cisco Control Center is being tracked on the Cisco Private 5G solution roadmap. Nokia RAN support slicing but is not included as part of this offer. Nokia solution can also support segmentation using other methods such as different APNs and QCI/5QI</p>



93		Roaming from: Private-to-public networks Public-to-private networks Private-to-private networks	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>One of the benefits of the hybrid cloud-based Cisco Private 5G solution is the centralized Subscriber Data Management supporting multiple different deployments for Enterprise at different locations. Meaning, a device with a SIM that has been provisioned for the Enterprise service, can be deployed in multiple locations that belong to the same Enterprise domain. Within the single domain, multiple PLMN IDs might be in use (sometimes mandated by country regulations), those would then be provisioned on the SIMs of the devices. This eliminates the need to configure SIMs for devices that are brought from one location to another.</p> <p>For Private-to-Private roaming, the current architecture already supports the capability utilizing the centralized SDM. Enterprise would need to enable specific edge nodes or locations to be enabled for roaming. For example, if one of Enterprise supplier has a PWN network and Enterprise employees need access on that PWN for roaming while visiting the facility (and access private resources), the supplier IT could enable Enterprise SIMs to be enabled for roaming. With the centralized architecture and potential to use a single PLMN or a dual PLMN, multiple flavors of Private-to-Private roaming can be supported.</p> <p>For Private to Public (and Public to Private) we see multiple approaches to the scenarios. These are driven by Dual SIM vs. Single SIM vs. eSIM based approaches and how session anchoring is handled for PWN.</p> <p>Dual SIM: device has two SIMs, one configured for the PWN and one for the public network.</p> <p>Single SIM: device has single SIM, with multiple PLMNs configured with priority order.</p> <p>eSIM: As device migrates from PWN to public network or a public device migrates from public to PWN, a new eSIM is enabled for supporting roaming. Technologies like MOCN could be used on the radios to configure public PLMNs which then must be connected via a gateway to the public operator networks (for which agreements must be in place as well). This can enable certain guest access scenarios as well for contractors visiting Enterprise Private facilities for PWN access.</p> <p>Due to the variation of device capabilities, architecture options, Cisco would prefer to have much more detailed discussions on the use cases for Enterprise along with device types to ensure the architecture can be mutually agreed and support the relevant scenarios. Note that the public network access would also require a SP partnership, which Cisco can enable but depends on the choice of country and SP requirements which has commercial dependencies as well.</p>
94		Performance monitoring	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes, Network management tools like EMS for RAN is part of proposed solution. Cisco cloud hosted management plane provides capability for NF monitoring and management.</p>
95		Multi-network roaming	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes, Proposed solution support Multi-network roaming</p>
96		Radio site capacity	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Nokia RAN site has different options of baseband solutions covering compact deployment with all in one bases band unit</p>
97		Bandwidth and throughput	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Nokia RAN can be configured with different bandwidth and throughputs. In recent throughput benchmark with other tier 1 RAN vendors Nokia BTS has shown the best throughput performance and is considered a leader in the market.</p>
98		Mode (4G only, 4G to 5G Upgrade, 4/5G mixed mode, 5G only)	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes, Proposed solution support all the modes</p>

99		Quality of Service (QoS)	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes , GBR/Non-GBR traffic both are supported	*
100		Network Slicing	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes , Based on APN and DNS .RAN and Core both support Network slicing as explained in Q.92	*
101	Network Components:		<input checked="" type="radio"/> Yes <input type="radio"/> No	Solution components includes Nokia RAN , 3 servers hosting 4G+5G network functions , switching infrastructure for transport	
102		High Availability	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes, NTT Proposed solution can be engineer to provide High availability.	*
103		Indoor RAN	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes, Nokia radios offered include also Indoor Radios	*
104		Outdoor RAN	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes, Nokia radios offered include also Outdoor Radios	*
105		Open/proprietary RAN	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>"Nokia RAN solution can interoperate with Nokia and 3rd party 3GPP compliant cores, and coexist and perform handovers with other 3GPP compliant RAN vendors. Nokia is part of Network Vendors IoT forum (<a href="http://www.nviot-forum.org/">http://www.nviot-forum.org/</a>) that regularly perform integration test between different vendors RAN and Cores to verify interoperability and reduce integration issues withing multi vendor solutions.</p> <p>In addition to that Nokia is committed to O-RAN as a pioneering global vendor to embrace openness. Nokia was the first major vendor to join the O-RAN Alliance. Nokia sees strong momentum for O-RAN, mostly in Cloud RAN and Near RT RIC and less often in O-FH across operators globally that are pursuing openness to build a global ecosystem, offer economies of scale, and enable all operators leverage common industry investments.</p> <p>Nokia is active in all O-RAN working groups. Nokia is co-chairing the workgroups that are defining the Open Fronthaul Interface and the Near Real-time RAN Intelligent Controller (RIC) which will help automate and optimize the network and the Operation &amp; maintenance (WG10).</p> <p>Nokia is a key contributor to E2E use cases and O-RAN overall architecture. In the area of OAM, Nokia is working to create a solution by re-using and aligning with the existing solutions of 3GPP and ETSI. Nokia is promoting RAN programmability with the concept known as Radio Intelligent Controller (RIC) and actively contributing on both non-real-time RIC in WG2 and near-real-time RIC in WG3."</p>	*
106		Open/proprietary Core	<input checked="" type="radio"/> Yes <input type="radio"/> No	Proprietary Core	*
107		SIMs	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes	*
108		End User Devices	<input type="radio"/> Yes <input checked="" type="radio"/> No	Not part of proposal	*
109		Gateways	<input type="radio"/> Yes <input checked="" type="radio"/> No	Will be discussed Case to Case basis	*
110	Design and Installation Services:		<input checked="" type="radio"/> Yes <input type="radio"/> No	Design and Installation Services are included a part of Professional Services	
111		RF Design	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes, This will be part of project planning phase Phase 2: Project Planning</p> <p>Complete the RF design: Based on the data collected during and after the site visit, the RF engineering team will finalize an RF design considering the coverage and capacity requirements of the Enterprise site. The RF design will include the site build form which takes into consideration approved radio mounting locations studied during the site visit.</p>	*

112		System Design	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes , This will be part of project planning</p> <p>Complete end-to-end design: Our solution architect will create an end-to-end network design taking into consideration all of the work conducted in the previous steps. This end-to-end design will be shared with the Enterprise project lead and other technical lead members for approval as required.</p>
113		Radio Installation	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes , This will be part of project build phase</p> <p>Phase 3: Project Build</p> <p>The Project Build phase involves the physical installation and turnup of the P5G Network infrastructure which is described below.</p> <p>Install all access points: The Enterprise team will physically install all of the indoor and outdoor access points required to provide P5G service all across the facility. Enterprise will connect the pre-terminated cables to establish the physical connectivity to the 5G Edge and connect to the power source</p>
114		Core Installation	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes, This will be part of Project build phase</p> <p>Install Core (HA core servers): The Enterprise team will install the high availability 5G Edge servers at the Enterprise-designated MDF/server room in coordination with the NTT DATA project manager. This will involve completing the physical cabling and IT configurations by the Enterprise IT team.</p>
115		System integration and testing	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes , This will part of Project Deployment, Testing, and Acceptance phase</p> <p>Phase 4: Project Deployment, Testing, and Acceptance</p> <p>The end-to-end network acceptance and user acceptance test plan is executed and reported at this stage of the project.</p>
116		Application integration support	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Yes, This will part of Project Deployment, Testing, and Acceptance Phase</p> <p>Network commissioning and integration: Once the physical equipment has been installed and powered up, and the IP configurations have been completed, the commissioning of the P5G Network solution will be conducted by the NTT DATA engineering team. After this, the end-to-end network components will be integrated along with any internal and external applications, the Network Orchestrator platform, and-in the United States only-the spectrum access system (SAS).</p>
117		Network slicing	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes
118		Operations, Maintenance and Administrative Services:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Network Operation and Maintenance will be delivered as part Day-2 Managed Services
119		Spectrum Access System	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes , Refer q.116 response for details
120		Network monitoring	<input checked="" type="radio"/> Yes <input type="radio"/> No	Yes , 24x7x265 network monitoring will be provides as part of NTTs Day-2 Managed services

### Exceptions to Terms, Conditions, or Specifications Form

Only those Proposer Exceptions to Terms, Conditions, or Specifications that have been accepted by Sourcewell have been incorporated into the contract text.

### Documents

**Ensure your submission document(s) conforms to the following:**

1. Documents in PDF format are preferred. Documents in Word, Excel, or compatible formats may also be provided.
2. Documents should NOT have a security password, as Sourcewell may not be able to open the file. It is your sole responsibility to ensure that the uploaded document(s) are not either defective, corrupted or blank and that the documents can be opened and viewed by Sourcewell.
3. Sourcewell may reject any response where any document(s) cannot be opened and viewed by Sourcewell.
4. If you need to upload more than one (1) document for a single item, you should combine the documents into one zipped file. If the zipped file contains more than one (1) document, ensure each document is named, in relation to the submission format item responding to. For example, if responding to the Marketing Plan category save the document as "Marketing Plan."

- [Pricing](#) - NTT Private 5G - Pricing Model and Scenario Pricing.pdf - Tuesday February 20, 2024 09:09:13
- [Financial Strength and Stability](#) - Financial Strength and Stability.zip - Monday February 19, 2024 10:50:28
- [Marketing Plan/Samples](#) - NTT DATA Sample Campaign Plan..pdf - Tuesday February 20, 2024 10:02:59
- [WMBE/MBE/SBE or Related Certificates](#) - Small Business Administration Certificate.zip - Monday February 19, 2024 08:28:52
- [Warranty Information](#) - Warranty Information.zip - Tuesday February 20, 2024 02:21:30
- [Standard Transaction Document Samples](#) - Standard Transaction documents.zip - Tuesday February 20, 2024 10:36:01
- [Requested Exceptions](#) - Sourcewell RFP\_020624\_Private\_Wireless\_Contract\_Template\_NTT edits.docx - Tuesday February 20, 2024 10:01:05
- [Upload Additional Document](#) - Additional Documents.zip - Tuesday February 20, 2024 11:39:20

## Addenda, Terms and Conditions

### PROPOSER AFFIDAVIT AND ASSURANCE OF COMPLIANCE

I certify that I am the authorized representative of the Proposer submitting the foregoing Proposal with the legal authority to bind the Proposer to this Affidavit and Assurance of Compliance:

1. The Proposer is submitting this Proposal under its full and complete legal name, and the Proposer legally exists in good standing in the jurisdiction of its residence.
2. The Proposer warrants that the information provided in this Proposal is true, correct, and reliable for purposes of evaluation for contract award.
3. The Proposer, including any person assisting with the creation of this Proposal, has arrived at this Proposal independently and the Proposal has been created without colluding with any other person, company, or parties that have or will submit a proposal under this solicitation; and the Proposal has in all respects been created fairly without any fraud or dishonesty. The Proposer has not directly or indirectly entered into any agreement or arrangement with any person or business in an effort to influence any part of this solicitation or operations of a resulting contract; and the Proposer has not taken any action in restraint of free trade or competitiveness in connection with this solicitation. Additionally, if Proposer has worked with a consultant on the Proposal, the consultant (an individual or a company) has not assisted any other entity that has submitted or will submit a proposal for this solicitation.
4. To the best of its knowledge and belief, and except as otherwise disclosed in the Proposal, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest. An organizational conflict of interest exists when a vendor has an unfair competitive advantage or the vendor's objectivity in performing the contract is, or might be, impaired.
5. The contents of the Proposal have not been communicated by the Proposer or its employees or agents to any person not an employee or legally authorized agent of the Proposer and will not be communicated to any such persons prior to Due Date of this solicitation.
6. If awarded a contract, the Proposer will provide to Sourcewell Participating Entities the equipment, products, and services in accordance with the terms, conditions, and scope of a resulting contract.
7. The Proposer possesses, or will possess before delivering any equipment, products, or services, all applicable licenses or certifications necessary to deliver such equipment, products, or services under any resulting contract.
8. The Proposer agrees to deliver equipment, products, and services through valid contracts, purchase orders, or means that are acceptable to Sourcewell Members. Unless otherwise agreed to, the Proposer must provide only new and first-quality products and related services to Sourcewell Members under an awarded Contract.
9. The Proposer will comply with all applicable provisions of federal, state, and local laws, regulations, rules, and orders.
10. The Proposer understands that Sourcewell will reject RFP proposals that are marked "confidential" (or "nonpublic," etc.), either substantially or in their entirety. Under Minnesota Statutes Section 13.591, subdivision 4, all proposals are considered nonpublic data until the evaluation is complete and a Contract is awarded. At that point, proposals become public data. Minnesota Statutes Section 13.37 permits only certain narrowly defined data to be considered a "trade secret," and thus nonpublic data under Minnesota's Data Practices Act.
11. Proposer its employees, agents, and subcontractors are not:
  1. Included on the "Specially Designated Nationals and Blocked Persons" list maintained by the Office of Foreign Assets Control of the United States Department of the Treasury found at: <https://www.treasury.gov/ofac/downloads/sdnlist.pdf>;
  2. Included on the government-wide exclusions lists in the United States System for Award Management found at: <https://sam.gov/SAM/>; or
  3. Presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from programs operated

by the State of Minnesota; the United States federal government or the Canadian government, as applicable; or any Participating Entity. Vendor certifies and warrants that neither it nor its principals have been convicted of a criminal offense related to the subject matter of this solicitation.

By checking this box I acknowledge that I am bound by the terms of the Proposer's Affidavit, have the legal authority to submit this Proposal on behalf of the Proposer, and that this electronic acknowledgment has the same legal effect, validity, and enforceability as if I had hand signed the Proposal. This signature will not be denied such legal effect, validity, or enforceability solely because an electronic signature or electronic record was used in its formation. - Shahid Ahmed, EVP, Enterprise 5G Products & Services, NTT DATA Inc.

The Proposer declares that there is an actual or potential Conflict of Interest relating to the preparation of its submission, and/or the Proposer foresees an actual or potential Conflict of Interest in performing the contractual obligations contemplated in the bid.

Yes  No

The Bidder acknowledges and agrees that the addendum/addenda below form part of the Bid Document.

Check the box in the column "I have reviewed this addendum" below to acknowledge each of the addenda.

File Name	I have reviewed the below addendum and attachments (if applicable)	Pages
<b>Addendum_7_Private_Wireless_Services_RFP_020624</b> Fri February 2 2024 10:45 AM	<input checked="" type="checkbox"/>	1
<b>Addendum_6_Private_Wireless_Services_RFP_020624</b> Wed January 31 2024 08:09 AM	<input checked="" type="checkbox"/>	1
<b>Addendum_5_Private_Wireless_Services_RFP_020624</b> Tue January 30 2024 12:22 PM	<input checked="" type="checkbox"/>	3
<b>Addendum_4_Private_Wireless_Services_RFP_020624</b> Fri January 26 2024 03:28 PM	<input checked="" type="checkbox"/>	2
<b>Addendum_3_Private_Wireless_Services_RFP_020624</b> Wed January 24 2024 04:00 PM	<input checked="" type="checkbox"/>	3
<b>Addendum_2_Private_Wireless_Services_RFP_020624</b> Thu January 18 2024 08:22 AM	<input checked="" type="checkbox"/>	2
<b>Addendum_1_Private_Wireless_Services_RFP_020624</b> Fri January 12 2024 02:04 PM	<input checked="" type="checkbox"/>	1