Narrative

FOR NETWORK CABLING AND FIBER INSTALLATION
Childress Independent School District

Introduction

Childress Independent School District (Childress ISD) is soliciting proposals from qualified vendors to provide installation of CAT6 and CAT6A copper cabling, 50-micron multi-mode OM4 fiber runs, and associated network infrastructure. The purpose of this project is to replace outdated cabling and fiber runs at 3 district campuses to ensure reliable, high-speed network connectivity and to future-proof the district's internal network infrastructure.

This project includes the installation of network drops and fiber runs at the high school, junior high, and elementary campuses. The selected vendor must provide Systemax (CommScope) certification for both copper and fiber installations, ensure compliance with all relevant safety and fire standards, and follow all applicable building codes.

CAT6 will be used for wall drops. CAT6A will be used for drops going to Wireless Access Points.

Vendor Qualifications and Experience

- Vendors must demonstrate experience with K-12 school districts or public sector network projects of a similar size and scope.
- Vendors should list **years of experience** providing structured cabling, fiber installations, and E-Rate-funded services.
- Vendors must provide at least **three (3) references** from similar projects completed in the last five years.

Compliance with E-Rate Rules

- Vendors must ensure full compliance with **E-Rate regulations**, as administered by the **Universal Service Administrative Company (USAC)**.
- All products and services quoted must be **E-Rate eligible**, and vendors must provide appropriate documentation, including **Item 21 attachments**, as required for E-Rate submissions.

- Vendors must ensure that all invoices and billing procedures follow E-Rate guidelines and be prepared to submit detailed invoices that clearly separate eligible and ineligible costs, following **FCC/USAC guidelines**.
- Vendors must maintain proper documentation for E-Rate audits and be prepared to provide supporting materials if requested by the district or USAC during the project and for up to **10 years after the completion** of the project.

Scope of Work

1. High School:

- Installation of 140 network drops.

2. Junior High:

- Installation of 100 network drops.
- Installation of three (3) 50-micron, OM4, 10-gigabit fiber runs:
    - From Junior High MDF to cafeteria IDF.
    - From Junior High MDF to Science Building.
    - From Junior High Maintenance building to portable classrooms.

3. Elementary School:

- Installation of 150 network drops.

4. Pathways:

- In suspended ceiling and raised floor areas where duct, cable trays, or conduit are not available, the contractor shall bundle station wiring in bundles of 50 or fewer using cable ties that are snug but do not deform the cable geometry.
- Cable bundles shall be supported via **J-hooks** attached to the existing building structure and framework at a maximum of **five-foot (5') intervals**.
- The contractor shall adhere to the manufacturer's requirements for **bending radius** and **pulling tension** of all data cables.
- Cables must not be attached to or supported by fire sprinkler heads, environmental sensors, or ceiling grid supports, and they must not load directly on the ceiling grid.
- **Plenum-rated cable ties** shall be used in all appropriate areas.

5. Materials and Equipment:

- Vendors must provide all materials required for the completion of the project, including but not limited to:
    - **Cabling, jacks, faceplates, racks, cable management, patch cables, conduit, patch panels, junction boxes**, and any necessary equipment.

6. J-Hooks Requirement:

- **J-hooks** must be used where necessary to support cabling runs **above suspended ceilings**, ensuring proper cable management and preventing damage to the cabling.

7. Cables:

- The CAT6 cable color will be **blue. CAT6 will be used for wall drops.**
- The CAT6A cable will be **yellow. CAT6A will be used for drops going to Wireless Access Points.**
- Must ensure compliance with TIA/EIA 568.2-D and ISO/IEC 11801 standards for Cat6 installations
- OM-4-rated fiber optic cable.
- Must meat TIA-568.3-D, ISO/IEC 1801, TIA-942 standards for Fiber Optic cabling
- To ensure seamless connectivity between switches and patch panels, the project must include **CAT6 rated patch cables** of appropriate lengths for each MDF or IDF configuration.
- Cables to an MDF or IDF should have a **service loop** of 10 to 15 feet of extra cable on each side of the cable (termination point and IDF/MDF.

Timeline and Project Completion Requirements

- **Start Date:** Work is prohibited from commencing before July 1, 2025.
- **Target Completion Date:** Before the first day of staff's return from summer break.

If completion within this timeframe is not feasible, the vendor is expected to complete the remaining work promptly, ensuring no disruption to the school day. Night, weekend, or holiday work will be coordinated with Childress ISD leadership and may be permitted on a case-by-case basis.

Contract Structure

- **Contract Term**: A 1-year initial term.
- **Renewal Options**: Four (4) optional 1-year renewals.

Site Survey Requirement

- The selected vendor must **conduct a site survey** before installation to assess the layout and cabling routes. This survey will help identify potential challenges, plan cabling pathways, and ensure that the installation is optimized for the district's specific needs.

Cable Materials and Fire Ratings

- All cable materials must comply with **UL fire ratings**, specifically:
    - **CMP** (Communications Plenum) is used for any cabling installed in plenum spaces with higher fire-resistance requirements.
    - **CMR** (Communications Riser) for cabling installed in vertical risers between floors.

The vendor is responsible for ensuring that all materials meet these safety standards and are installed in compliance with local and national fire safety codes.

Warranty, Support, and Uptime

- Vendors will provide a **one (1) year standard warranty** on all workmanship, ensuring that any issues resulting from installation errors are addressed within this timeframe.
- The vendor will also provide the **manufacturer warranty** on all materials used in the installation.
- Ongoing support and service uptime requirements will be outlined during the installation phase, ensuring that any disruptions to school operations are minimized.

Proposal Requirements

Proposals must include the following:

1. **Vendor Information:**
    - Company name, contact details, and certifications.
    - Details of past relevant experience and projects of similar scope.
2. **Systemax Certification:**
    - Proof of Systemax (CommScope) certification for both copper cabling and fiber installations.
    - Ensure adherence to Systemax guidelines for installation and testing.
3. **Cabling Requirements:**
    - The vendor must provide pricing for **blue CAT6 and Cat6A** cabling options.

- All copper cabling for the project must adhere to the **TIA/EIA 568B** standard. This wiring configuration will be used for all CAT 6 and CAT6A network drops to ensure consistency and compliance with industry standards.
- Use pure solid copper conductors with 23 AWG wire and HDPE insulation.
- Shielding and LSZH or PVC jacket materials must comply with environmental standards.
- No cable run should exceed 100 meters, supporting 10 Gbps over distances up to 55 meters.
- All cabling and installation must meet or exceed ANSI/TIA 568 standards.
- **J-hooks** must be used above suspended ceilings to ensure proper cable support.
- Cables should not rest directly on ceiling grids.
- **Blue patch cables** of appropriate lengths must be included for each MDF or IDF configuration.
- Vendors must provide **all necessary materials,** including cabling, jacks, faceplates, racks, cable management, patch cables, patch panels, conduits, junction boxes, and any other equipment required.

4. **Fiber Requirements:**
   - Installation of 50-micron **multi-mode fiber** with:
     - **10 gigabit bandwidth capacity**.
     - **300 meters (984 feet)** maximum distance.
   - Fiber optic cables must meet or exceed ANSI/TIA 568 standards for data transmission.
   - Install **OM4** Laser Optimized Multimode Fiber, certified for 10-gigabit speeds, with SC connector terminations in a rack-mounted fiber panel.
5. **Safety, Fire Rating, and Building Code Compliance:**
   - All work must comply with applicable local, state, and national building codes.
   - All materials used must meet or exceed fire safety standards, including UL fire ratings.
   - The vendor must follow proper firestop techniques at all penetration points in accordance with the National Electrical Code (NEC) and other applicable safety standards.
6. **Warranty:**
   - **Workmanship Warranty:** The vendor must provide a one (1) year standard warranty on all workmanship, ensuring that any issues resulting from installation errors are addressed within this timeframe.
   - **Materials Warranty:** The vendor must ensure that the manufacturer provides a minimum 25-year warranty covering defects in materials and product performance, which aligns with industry standards for cabling and fiber infrastructure.
7. **Installation Standards:**
   - All installations must follow industry best practices, including maintaining proper bend radius for copper and fiber cables, ensuring grounding and bonding are

completed per industry standards, and adhering to recommended separation distances for electrical interference.
    - **Labeling Type**: Use high-quality vinyl wrap-around labels on the cables that can withstand wear over time, resist moisture, and are UV-resistant. Laminated labels are often recommended to protect against environmental factors that may cause fading or damage.
    - **Placement and Adhesion**: Labels should be positioned within 4-5 inches of the connectors on both ends of the cable to ensure easy identification without pulling on the cable. The labels should securely wrap around the cable, adhering well without the risk of peeling.
    - **Printing Specifications**: Ensure labels are machine-printed rather than handwritten. Thermal transfer printing or industrial-grade label makers are ideal, as they produce smudge-proof, abrasion-resistant text that remains legible in various conditions.
    - **Compliance**: Adhering to the TIA-606-C standards is essential for cable labeling in network environments, which also helps simplify maintenance and ensure future compatibility with cabling standards.
    - **Labeling** should be placed on the cable and the faceplate on both ends of the cable.
    - If the drop is above the ceiling grid, the area where the wire is must be marked.
    - Installation must minimize disruption to daily operations, with work scheduled during off-peak hours.
    - Cables should be separated by 12” or more from any electrical cabling or utility.
    - Cable management should not be hung with zip ties. Velcro is required anytime the cable needs to be secured.
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8. **Cost Proposal:**

- **Hourly Rates**: Include technician and project manager rates.
- **Project Management**: Costs for pre-installation surveys, ongoing management, and after-hours premium if required.

Materials:

- **Cabling**:
    - **CAT6 and CAT6A (blue)**: Price per foot or unit.
    - **Fiber (OM4, 50-micron)**: Cost per foot, including SC terminations and UL-rated jacket.
- **Hardware**:
    - **Patch Cables**: Blue CAT6, various lengths.
    - **Faceplates and Jacks**: Per drop.
- **Cable Management**:
    - **Patch Panels** and **J-Hooks**: Priced per unit.
    - **Pathways/Conduit**: Per foot for necessary pathways.

Compliance & Safety:

- **Fire-Rated Cables**: CMP or CMR-rated (plenum/riser).
- **Firestop Materials**: NEC-compliant firestop per unit.

Certification:

- **Systemax Certification**: One-time fee per project.
- **E-Rate Documentation**: Includes compliance and audit prep costs.

Warranty and Support:

- **Workmanship Warranty**: 1-year for installation errors.
- **Manufacturer's Warranty**: Up to 25 years for materials.

Additional Factors:

- **After-Hours Premiums**: Night or weekend work rates.
- **Environmental Precautions**: For working in sensitive spaces.

General Terms and Conditions

- Childress ISD reserves the right to reject any and all proposals, to waive any informalities, and to accept the proposal deemed in the best interest of the district.
- The vendor will bear all costs associated with the preparation and submission of the proposal.
- The selected vendor will be required to enter into a formal agreement with Childress ISD in accordance with the terms of this request and the vendor's proposal.