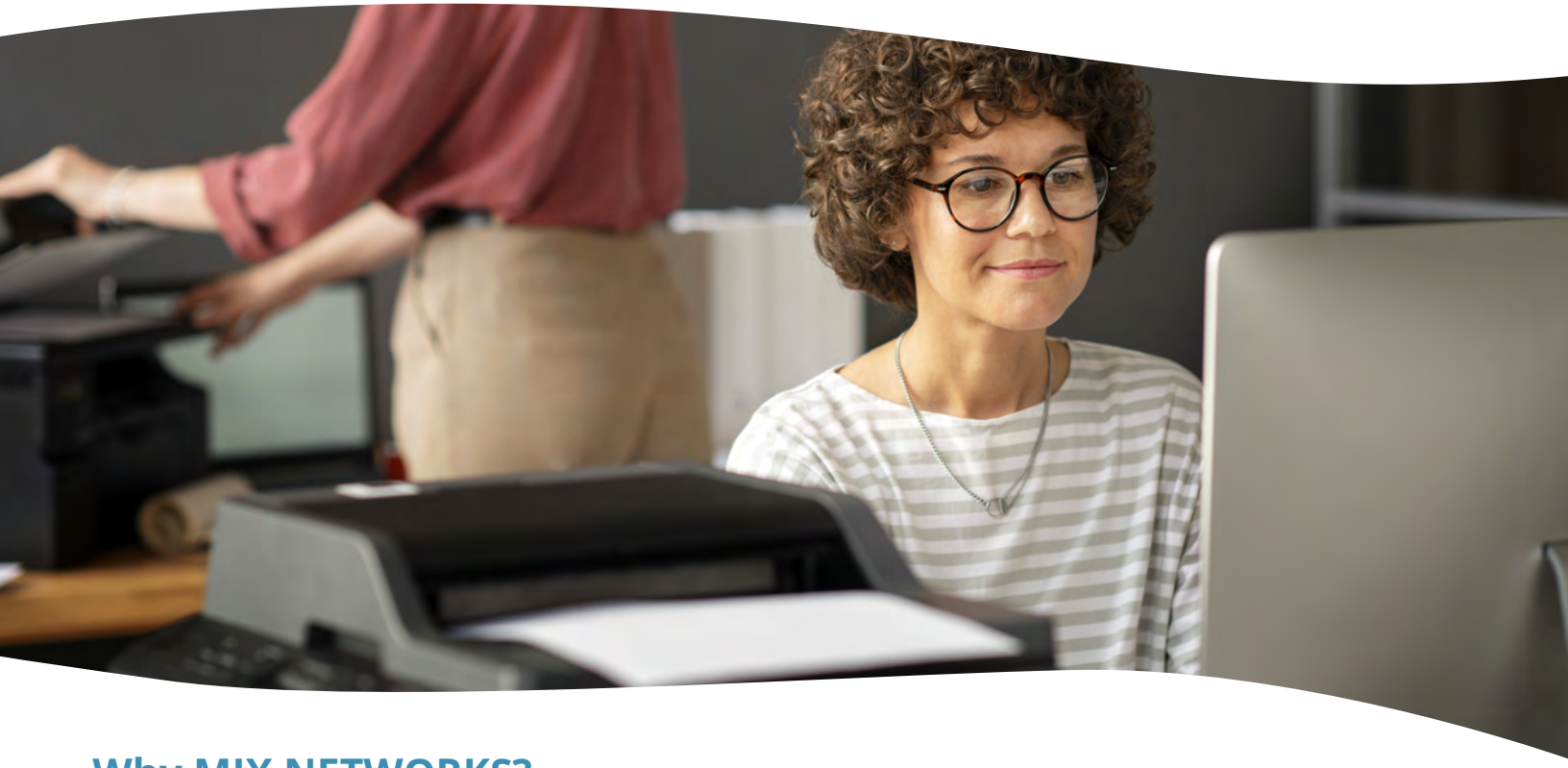
# Copper Line Replacement, Secure Fax And Managed Installation

## Code-Compliant Life-Safety Communications for School Districts & Campus Facilities



## Why MIX NETWORKS?

School districts face a hard deadline: carriers are retiring copper Plain Old Telephone Service (POTS) infrastructure, and remaining lines are climbing toward $100–$200 per line each month. Those same lines carry a district's most critical circuits — fire alarm communicators, elevator emergency phones, emergency call boxes, E-911, and analog fax. MIX Networks replaces aging copper with a secure, managed, code-compliant digital path without requiring a forklift upgrade of existing equipment.

**MIX Networks is a Managed Facilities-based Voice Network (MFVN) provider.** As a Managed Facilities-based Voice Network (MFVN) provider, MIX Networks delivers a fully managed, monitored, and supported copper replacement — engineered for life-safety and analog applications, backed by carrier-grade redundancy and the certifications that authorities having jurisdiction (AHJs) require.

### Built for Life-Safety

Purpose-engineered for fire alarm panels, elevator lines, and emergency call boxes — not a generic ATA adapter.

### Always-On Continuity

Up to 48 hours of battery backup plus 4G/5G cellular failover keep critical lines up during outages.

### Budget Predictable

Fixed monthly per-line pricing on 12–60 month terms replaces unpredictable, escalating copper bills.

### Compliance-Forward

UL 864 (10th Ed.), UL 62368-1 NFPA 72 architecture, CA State Fire Marshal listed, and FDNY MFVN-recognized.

### Fully Managed

In-house developed firmware, 24/7 monitoring, secure remote management, and U.S.-based support.

### Turnkey Delivery

Pre-installation site survey, staging, field installation, cross-connect, and test-and-turn-up — coordinated end to end.

# Copper POTS Line Replacement

## The core of a district-wide digital transformation

**The 90X1 and 90X2** (POTS-IN-A-BOX®) are next-generation devices that replace traditional copper landlines with a secure, IP-based connection delivered over the district's existing broadband or fiber, with 4G/5G cellular as a built-in backup path. Each unit provides up to eight analog (FXS) ports, so a single device can carry multiple lines — voice, fax, alarm, elevator, modem, and ring-down circuits — while the analog equipment already installed at the building continues to operate unchanged.

## Why Schools Can't Wait on This

- **Copper is being retired** — Carriers are actively decommissioning copper under the FCC's copper-retirement framework. Lines are getting more expensive and harder to repair.
- **Life-safety lines are exposed** — Fire alarm, elevator, and emergency call-box circuits riding on failing copper are a compliance and liability risk for a district.
- **Costs are escalating** — At $100–$200 per line per month across dozens of sites, POTS has become a substantial, growing, and unpredictable line item.
- **Multi-site sprawl** — Districts run dozens of analog lines across schools, gyms, portables, and administrative buildings — exactly the environment a managed, centrally monitored solution is built for.

## One Device, Every Critical School Line

***The 90X1/90X2 supports the full range of circuits a district depends on:***

- Fire Alarm Panels
- Elevator Emergency Phones
- Emergency Call Boxes
- Paging
- Voice & Ring-Down Lines
- Analog Fax
- Burglar / Security Alarms
- Utility Meter Reading
- Gate & Door Access Boxes
- Legacy Modems & Data
- POS / Vending
- Telemetry, Command & Control

## Business Continuity That Beats Copper

DATAREMOTE's 90X1 and 90X2 devices deliver next-generation POTS line replacement technology designed for critical services requiring absolute reliability. These devices replace traditional copper landlines with secure, IP-based connections over broadband, fiber, or cellular networks while maintaining full compatibility with legacy equipment.

### Carrier-Grade Redundancy

Traffic is anchored across geo-redundant data centers (Dallas, Secaucus, Lakeland, Ashburn, Las Vegas) with N+1 power and a 99.999% uptime target.




### Up to 48-Hour Battery Backup

A large 18-cell lithium battery keeps critical lines operational through extended power outages — far beyond a typical UPS — and can power external devices via UPS output.

### Proactive 24/7 Monitoring

MIX Networks monitors device health, connectivity, registration, and battery status, taking action and notifying on changes of state before they affect the school.

### 4G/5G Cellular Failover

If the building's internet path fails, the device automatically switches to cellular within seconds. Multi-carrier SIM options add true infrastructure diversity.

# POTS Replacement: Compliance and Certifications

## What your Authority Having Jurisdiction (AHJ) needs to see

**For schools, compliance is the deciding factor.** Fire alarm and life-safety communications are governed by NFPA 72 and enforced locally by your AHJ. MIX Networks' device is positioned at the demarcation as a POTS line replacement, while the separately listed fire alarm control unit continues to function exactly as designed.



## Certifications & Listings

- **California State Fire Marshal Listing —** The 90X1, 90X2, and VAB-1 are listed by the California Office of the State Fire Marshal under the Building Materials Listing Program (Listing No. 7305-2384:0002, Category 7305 — Miscellaneous Signaling Equipment) for use with separately listed compatible fire alarm control units.
- **New York / FDNY MFVN Recognition —** MIX Networks holds a Conditional Letter of Acceptance from the FDNY Bureau of Fire Prevention recognizing MIX Networks as a Managed Facilities-based Voice Network for transmitting fire alarm signals (Record ID 2025-TMFRAL-007143-VRNC), for the 90X1 and 90X2 models.
- **UL 864 (10th Ed.), UL 62368-1 & UL 2054 —** The devices comply with the applicable requirements of UL 864 (10th Edition) for use with compatible fire alarm control units, and are additionally listed under UL 62368-1 (information and communication technology equipment safety) and UL 2054 (battery safety).
- **NFPA 72 Compliance —** The 90X1/90X2 address and satisfy 2016 NFPA 72 Chapter 26.6 and exceed NFPA 72 (2025) technical requirements, providing primary and secondary pathways across both cellular and WAN connectivity.
- **FCC Part 68 & Part 15 —** The devices comply with FCC Part 68 / ANSI-TIA-968-B (REN up to 5.0) and Part 15, and are FCC- and PTCRB-certified with ETL labeling.
- **TAA Compliant —** Equipment is Trade Agreements Act (TAA) compliant, supporting the public-sector and government procurement requirements common to school district purchasing.

## Engineered to Meet MFVN Standards

### Standby Power Monitoring

Meets the MFVN requirement for standby power at the protected premises, with the device monitoring battery condition and reporting state changes.

### Signal Integrity

Real-time transmission of voice and fire-alarm signals, carrying industry-standard alarm formats unchanged from panel to approved central station.

### Secure by Design

TLS encryption, Secure SIP (TLS), HTTPS device UI, multi-factor authentication, and firewall defaults that block unauthorized remote access.

### Managed Pathways

Proactive management, operation, and maintenance with disaster-recovery procedures and dual primary/secondary pathways for assured reliability.

### *Important Compliance Note*

**Final approval always rests with the local AHJ.** After installation, the telephone-service subscriber must have any connected alarm system tested by authorized fire-alarm service personnel per NFPA 72, Chapter 14, to confirm all signal-transmission features remain operational. MIX Networks coordinates this verification as part of the installation process. Listings and acceptances referenced above carry their own scope, conditions, and expiration dates.

# Secure Fax Solutions

## Keep faxing where it's required — without the copper line

Schools rely on fax for student health records, special-education documentation, transcripts, nurse and clinic communications, and district paperwork. MIX Networks delivers an enterprise-grade Internet fax platform that modernizes fax delivery while preserving reliability, security, and compliance.

## Flexible Deployment

### Cloud Fax

Fully hosted, web-based faxing from any internet-connected device — no fax machine or fax line required.

### Hybrid Model

Combines cloud management with local infrastructure for departments that need both.

### On-Premise ATA

Connects an existing fax machine securely over IP, so staff workflows don't change.

### Workflow Integration

Email-to-Fax and Fax-to-Email, print-to-fax driver support, and real-time delivery tracking.



## Security & HIPAA-Aligned Controls

Health records and clinic communications carry real privacy obligations. The platform supports HIPAA technical safeguards when configured with proper access controls and retention policies:

- **Secure web portals** — with authentication controls
- **Protected document storage** — and encrypted transfers
- **Audit-ready reporting** — with delivery confirmation
- **Redundant infrastructure** — with intelligent routing and automatic retries

# Installation & Site Survey

## POTS replacement delivered as a complete, managed service

Every deployment begins with a structured site survey and is executed by qualified field technicians — not just a box on the wall. Sites are classified Simple or Complex up front so customers know scope, timeline, and cost before work begins. Every install is photographed, tested, and documented; nothing is declared complete until service is verified on each line.



## What We Do

- **Pre-installation Site Survey —** remote and/or on-site, delivered with a written Site Survey Report and recommended configuration before any truck rolls.
- **Provisioning & staging —** full device configuration, SIM activation, and SIP registration completed before equipment ships.
- **Cross-connect & Test and Turn-Up —** DMARC/66-block cross-connect with functional testing on every line.
- **Line-type expertise —** voice, fax, alarm, modem, elevator, and door-entry.

## Why MIX Neworks

- **Predictable 3-stage delivery —** Install Prep, Install/TTU, and Cross-Connect. Documented and repeatable across single sites or multi-site rollouts.
- **Life-safety alarm method —** Test Mode coordination, 60-second voltage-drop sequence, training-call validation, and confirmed return to Normal Mode.
- **Elevator & door-entry engineering —** MODEM-mode FXS, enhanced DID over a customized SIP trunk, and loop-current compensation for long copper runs.
- **Highly qualified field techs —** copper tracing, foreign-voltage detection, 66/110-block punch-down, and analog + networking proficiency.



# Pricing

## MIX Networks MSRP — school district reference pricing

**Pricing below is reference MSRP for budgeting.** District-specific pricing, volume considerations, and a detailed Statement of Work are provided after the site survey.

### POTS Line Replacement — Monthly Service (per line, by term)

| SERVICE TYPE | 12 MO | OFFER (3 YEAR) |
|---|---|---|
| Specialty (Fax, Modem, Alarm, Data) | $49.95 | $29.95 |
| Specialty (Voice & Elevator) | $34.95 | $19.95 |

### Hardware (amortized monthly, by term)

| ITEM | MSRP | 36 MO |
|---|---|---|
| PIAB 90X2 Router (4G/LTE, 8 FXS) | $349.95 | $12.00 |

**3 year warranty with amortization*

### Add-Ons, Installation & Fees

| ITEM | PRICE |
|---|---|
| Cellular Failover (4G/5G) | TBD or (Bring Your Own) |
| PIAB 90X2 Maintenance | $6.00 / mo per 90X2 |
| Provisioning / Staging / Kitting | $45.00 one-time |
| Site Survey \| Installation (hourly) (2 hr Min) | $165.00 per hour |

### Fax Services

| ITEM | PRICE |
|---|---|
| Fax Services (Virtual via MIX Fax Services Portal) | $15.95 / mo |
| Fax Services via MIX Fax Services ATA (Onsite Only) | $15.95 / mo |
| Fax Services via MIX Fax Services ATA (Onsite & Virtual) | $16.95 / mo |
| Fax ATA, MIX Fax Services (hardware) | $100.00 one-time |

*Site Survey and field installation are quoted per Statement of Work based on survey findings (remote vs. on-site, simple vs. complex, line count, and travel). MSRP updated 5/29/26. Pricing subject to change.*

## Next Step

**SCHEDULE A SITE SURVE!**
MIX Networks will inventory your district's analog lines, identify life-safety circuits, and return a building-by-building replacement plan with firm pricing.

**Sales: 863-500-5000**
**Support: 863-583-0266**
**Email: sales@mixnetworks.com**