

# MAINTAINING EMERGENCY COMMUNICATION INFRASTRUCTURE IN COMMERCIAL REAL ESTATE: THE RISING COST TO MANAGE & COMPETE



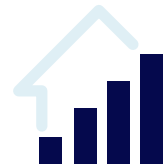
Annual per-unit expenses rose 7.1% year-over-year as of January 2024, lead by insurance, which rose 27.7%.<sup>1</sup>



Commercial real-estate insurance costs have risen 7.6% annually on average since 2017.<sup>2</sup>

40.2%

Multifamily assets comprised 40.2% of foreclosures across all property types in 2023.<sup>3</sup>



Top U.S. markets have seen the multifamily inventory increase by an annual average of 3.4% since 2020.<sup>4</sup>

Attracting good tenants and caring for them—from emergencies to amenities—is essential for property desirability and profitability. This includes keeping properties well-maintained and using technology where appropriate for simplicity and reliability. Staying compliant while navigating the rising costs of nearly every aspect of property ownership and management is an ongoing challenge. One such aspect of that challenge is emergency phone lines. In multi dwelling units (MDUs), student housing, retail locations, and more, security panels, elevator phones, and fire alarm communication, for instance, are required and strictly regulated for safety purposes. These lines must remain reliable and in good working condition, and the must comply with several regulatory bodies.

Hard copper wiring has always been considered the most reliable line of communication. From the first copper wires in the 1880's, we've depended on them across the world for over a century. While some of those original lines do still exist, the average copper phone lines are 50-60 years old. While the copper itself can last around 100 years, the sheathing and insulation wears down sooner and ultimately reduces that lifespan to 50-70 years. Electrical storms, power surges, and other outside interference also play a role in wire longevity and condition.

A simple Google search will tell you that areas of the US have had questionable reliability with these lines for 20 years or more, from service interruptions to interference. Some carriers are now refusing to repair them. **So what's going on?**

# INTRODUCING VIRTUALPBX

VirtualPBX is a user-focused, award-winning idea leader, driving human connection in the virtual communication industry for nearly three decades. We help to build relationships virtually, anywhere, empowering businesses to scale smoothly and quickly with intuitive execution through a product family and feature suite to meet your unique needs. We look forward to the opportunity to earn your trust and your business.

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As technology around the world continues to evolve and advance, repairing “hard” copper telephone lines (the industry calls them POTS lines for “Plain Old Telephone Service”) has gotten more expensive. Material pricing, skilled installation, maintenance labor, and accessibility have all presented barriers for the industry that have compromised the profitability and even affordability of maintaining the lines.

In 2019, the [FCC Landline Shutdown Order 19-72](#)<sup>5</sup> announced that telecom carriers are no longer required to install services in their coverage area. While that doesn’t mean telecommunication companies will shut them down, it does mean those companies now have the option to stop providing those lines and to stop servicing those lines as the costs outweigh the benefits. And if you’re looking for new analog POTS line service with copper handoffs, that could be a problem as many companies are no longer offering new service lines and many areas are no longer covered. We saw just how quickly this became impactful when the FCC reported that POTS lines have dropped from 122 million in 2010 to 41 million just 9 years later.<sup>6</sup>

### **So are traditional “Landlines” (POTS lines) going away?**

POTS lines are not going away. While a stop service date has not been announced, what is likely going away is your current POTS line pricing and the infrastructure and customer support surrounding it.

What will likely go away at some point in the future is the reliability of these lines once companies shift resources and priorities away from maintaining them.

### **What technologies exist to replace copper lines?**

Many property managers and owners are still working through their POTS transition plan away from copper wires, but know that you have options.

POTS line replacement solutions are shared communications services, just like the original PSTN lines. (See Figure 1-1 below) They are installed in the telcom room or demarcation point, also known as the minimum point of entry (MPOE) or “demarc.”

Like original POTS lines, POTS replacement services receive analog audio input from the FACP. They also deliver the same analog audio and output to the receiver at the monitoring station. It’s a simple replacement of the original PSTN or POTS line that doesn’t require any changes to FACP panels or monitoring stations. Best of all, it’s NOT a cellular communicator or a dial capture device.

And they’re reliable. Dual Ethernet WAN and 4G LTE wireless network connectivity operate in active-active redundant configurations with automatic failover to help ensure highly reliable and secure communications (Figure 1-2). Plus, all the guesswork of blinking LEDs is gone, replaced with a clear, concise operational status on the unit’s LCD display.

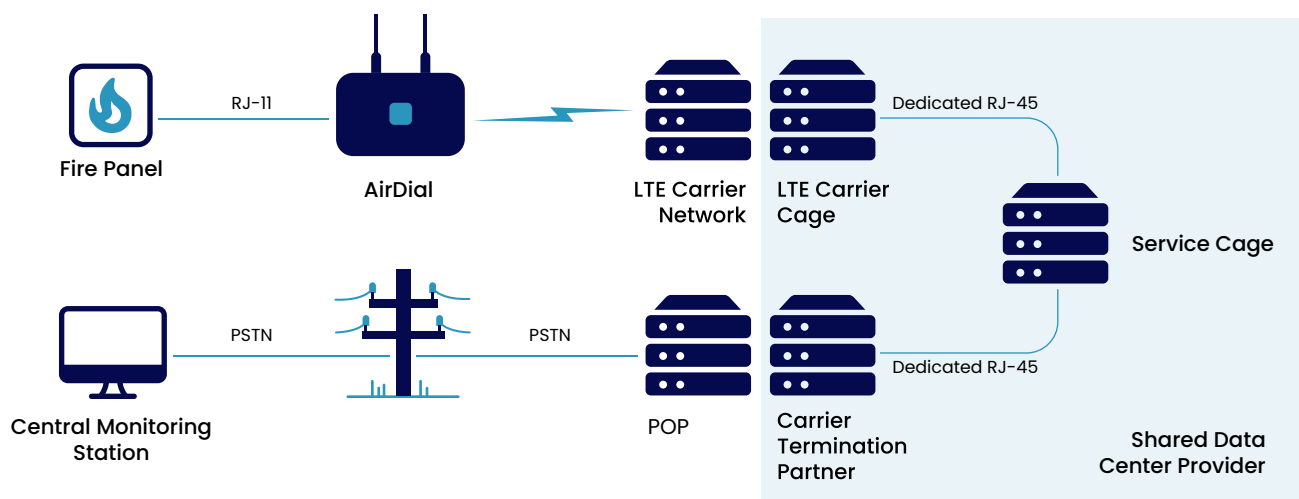


Figure 1-1. AirDial provides turnkey POTS replacement by combining the base station with virtual analog phone service and your network data connection. Deployments can be remotely managed through an online portal.



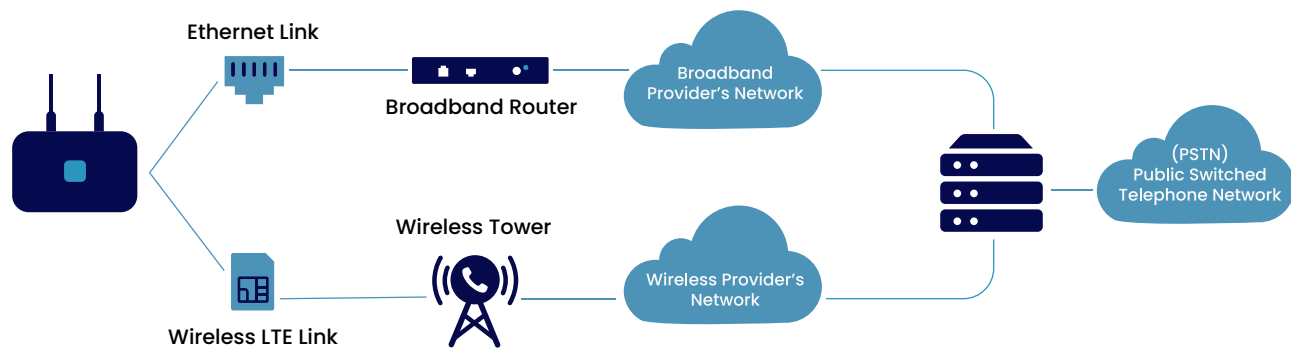


Figure 1-2. Dual Ethernet WAN and 4G LTE wireless network connectivity operate in active-active redundant configurations with automatic failover to help ensure highly reliable and secure communications.

## ADDRESSING COMPLIANCE

**But are they compliant?** Compliance in these replacement solutions becomes dependent on the device and the provider. VirtualPBX AirDial is compliant across industries for maximum security, reliability, and cost savings, because in many cases we're talking about critical life communications.

VirtualPBX AirDial complies as follows:

### ASME Section A17.1, 2.27.1.1.5

The AirDial integrated backup battery supplies 8+ hours of standby and active device usage. Real-time battery status is monitored through RDM portal, including charge level and if battery is in use. Email/SMS battery alerts available (ex: less than 10% battery level or device switching from AC to battery).

### NFPA 72 Guidelines

AirDial is a fully managed end-to-end MFVN solution for pathway reliability with over 8 hours in standby power, and can be extended to more than 24 hours with optional accessories. It requires no reconfiguration of fire and security panel and meets line seizure and central office compliance.

### California Fire Marshall

AirDial is endorsed by the California Fire Marshall.

### The City of New York Fire Department (FDNY)

The Fire Department of the City of New York (FDNY), record ID #2024-TMFRAL-001851-VRNC, for connecting fire alarm panels.

### UL 2054

Portable primary (non-rechargeable) and secondary (rechargeable) batteries for power source use.

## CRITICAL SYSTEMS REQUIRING COMPLIANT SOLUTIONS



Security Panels



Building Entry Phones



Fire Alarm Panels



Essential Phone Lines



Elevator Phones



Fax Machines



Public Safety Phones



Backup Phone Service

### UN 38.3

Backup batteries meet UN 38.3 for lithium battery durability/reliability in transport.

### UL 62368-1 Compliant

Electrical/electronic equipment safely rated with a voltage less than 600 volts.

### HIPAA Compliant

When paired with analog fax machines, AirDial can help organizations remain compliant with the Health Insurance Portability and Accountability Act (HIPAA) since patient information is encrypted and never crosses the public internet.

### PCI Compliant

AirDial helps organizations adhere to Payment Card Industry (PCI) compliance guidelines since point-of-sale payment details are encrypted, never stored, and confidential payment information never traverses the public Internet.

**AirDial's MultiPath transport technology routes all voice traffic over both the LTE and wired ethernet networks simultaneously to avoid service disruptions.**

## MAKING THE CASE TO REPLACE

- ✓ The rugged design allows it to wall-mount vertically or lay flat on a surface.
- ✓ Each unit supports up to four phone lines.
- ✓ Heat-sink and ventilation allows for fan-less cooling.
- ✓ Featuring a modular antenna with optional extensions.
- ✓ Solve all POTS challenges with one provider—hardware, data, and phone service with no monthly rate “surprises.”
- ✓ Save money on monthly phone bills.
- ✓ Quick, easy migration to continue using existing systems.
- ✓ Deploy it yourself or receive end-to-end project management from assessment to installation and support.
- ✓ Configure to provide LTE failover for mission critical VoIP lines.
- ✓ Automatic software updates and system monitoring.
- ✓ Manage all locations and devices using an intuitive web portal. Get SMS and email alerts in the event of an outage or low battery signal.
- ✓ MultiPath technology sends all voice traffic over both LTE and wired Ethernet simultaneously to avoid service interruptions.
- ✓ Backup battery maintains service for 16 hours which can be extended to more than 24 hours using an optional external battery accessory.

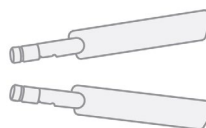
## PACKAGE CONTENTS



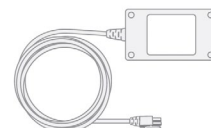
*AirDial*



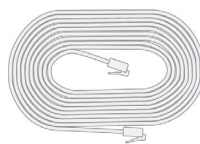
*Mounting Bracket*



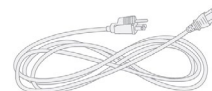
*2 External Detachable  
LTE Antennas*



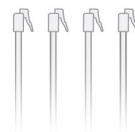
*Power Adapter*



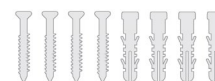
*Ethernet Cable (CAT5)*



*Power Adapter Cable*



*4X Phone Wires*



*Mounting Screws  
and Anchors*

### ASSEMBLY AS EASY AS 1-2-3

**1**

Connect the included antennas to the back of the device.

**2**

Attach the AC power adapter to the AirDial unit and plug the other end into a wall.

**3**

Turn the power switch to the ON position and connect to the internet.

# VIRTUALPBX AIRDIAL SPECIFICATIONS

<b>PROCESSOR</b>	Dual-core ARM Cortex A9 CPU
<b>MODEM</b>	Quectel EG95-NAXD; Cat-4 LTE
<b>LTE BAND SUPPORT</b>	B2/B4/B5/B12/B13/B25/B26
<b>LTE DATA RATES</b>	Data rates up to 150 Mbps down and 50 Mbps up
<b>ANTENNAS</b>	Hinged 90° termination with SMA(M) Connector Two Wideband 5G/4G Terminal Mount
<b>SIM CARDS</b>	Dual micro-SIM support
<b>ETHERNET</b>	One RJ-45 10/100/1000 Ethernet WAN port One RJ-45 10/100/1000 Ethernet LAN port
<b>FXS PORTS</b>	Four RJ-11 analog FXS ports
<b>TELEPHONY</b>	55Vrms Low Power Ringing
<b>POWER ADAPTER</b>	AC-DC Adapter w/ MicroFit+ connector
<b>POWER INPUT</b>	100-240 VAC 50-60Hz
<b>POWER OUTPUT</b>	12VDC/3A 36W
<b>BATTERY BACKUP</b>	Replaceable battery pack 3S3P Li-ion battery: 10.95V, 3A Capacity 85.4 Wh (7.8 Ah) provides > 8 hours of standby time
<b>DISPLAY</b>	320x240 LCD display
<b>SWITCHES</b>	Master On/Off Factory reset (recessed)
<b>DIMENSIONS</b>	W 30cm x H 6cm x D 20cm when sitting horizontally
<b>OPERATING TEMPERATURE</b>	0 – 40° C
<b>WARRANTY</b>	1-Year Limited Warranty

1. <https://www.yardimatrix.com/publications/download/file/5352-MatrixResearchBulletin-MultifamilyExpenses-March2024>

2. <https://www.wsj.com/real-estate/commercial/commercial-real-estates-next-big-headache-spiraling-insurance-costs-604efe4d>

3. <https://www.avisonyoung.us/documents/d/us/u-s-multifamily-quarterly-report-q1-2024>

4. <https://www.avisonyoung.us/us-multifamily-market-overview>

5. <https://www.fcc.gov/document/fcc-grants-relief-outdated-burdensome-phone-industry-regulations>

6. <https://docs.fcc.gov/public/attachments/DOC-372275A1.pdf>

**Beyond exceptional customer service, VirtualPBX handles account activation for you and our comprehensive solutions simplify bill consolidation.**



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# THE VIRTUALPBX DIFFERENCE



## SMALL BUSINESS APPROVED

At VirtualPBX we swiftly navigate barriers and offer exceptional support for *businesses of all sizes* with zero added fees.



## PERSONALIZED PLANS

We understand that every business is different, which is why we customize our plans to *meet your needs*.



## APPS THAT WORK ANYWHERE

With clients in *over 40 countries*, remote, on-site, hybrid, or abroad, we have apps that work seamlessly right where (and when) you do.



## SIMPLE SCALABILITY

From a single device to hundreds, our platforms are *designed to match your growth and structure* seamlessly.



## INCLUDED 24/7 SUPPORT

Our customer experience is like no other, with guided support and next-level ideas to move your business forward, and *at no extra cost*.



## PRIVATE U.S. BUSINESS

*We are a privately-owned and founder-based, U.S. enterprise* with 6 geographically distributed data centers, including one in the UK.

As copper telephone lines phase out, AirDial makes the switch to digital simple, compliant, and cost effective with multi-line and multi-location discounts.

"Our company was an early adopter of decentralized, home offices. We have used VPBX for our phone system beginning in approximately 2001 and have continued to remain pleased with the service. VPBX has always been reliable and they continue to improve their product while keeping pricing reasonable. We have no reason to look elsewhere!"

– Kenn Johnston, Cal West Mashy Company, Inc.

"I've had Virtual PBX for over a year and a 1/2 and it's been seamless. When I did have a question or needed support I always receive it right away. I was skeptical - but now I'm a believer."

– Karrie Hysten, Tourism Cares



A+



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