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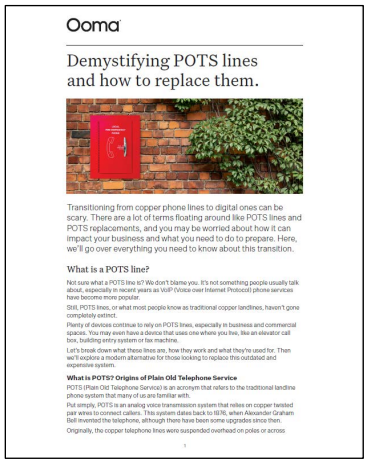
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Demystifying POTS lines and how to replace them.

Transitioning from copper phone lines to digital ones can be scary. There are a lot of terms floating around like POTS lines and POTS replacements, and you may be worried about how it can impact your business and what you need to do to prepare. Here, we'll go over everything you need to know about this transition.

What is a POTS line?

Not sure what a POTS line is? We don't blame you. It's not something people usually talk about, especially in recent years as VoIP (Voice over Internet Protocol) phone services have become more popular.

Still, POTS lines, or what most people know as traditional copper landlines, haven't gone completely extinct.

Plenty of devices continue to rely on POTS lines, especially in business and commercial spaces. You may even have a device that uses one where you live, like an elevator call box, building entry system or fax machine.

Let's break down what these lines are, how they work and what they're used for. Then we'll explore a modern alternative for those looking to replace this outdated and expensive system.

What is POTS? Origins of Plain Old Telephone Service

POTS (Plain Old Telephone Service) is an acronym that refers to the traditional landline phone system that many of us are familiar with.

Put simply, POTS is an analog voice transmission system that relies on copper twisted pair wires to connect callers. This system dates back to 1876, when Alexander Graham Bell invented the telephone, although there have been some upgrades since then.

Originally, the copper telephone lines were suspended overhead on poles or across

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Originally, the copper telephone lines were suspended overhead on poles or across

rooftops. As technology advanced, it became more common to bury these lines underground. These traditional copper telephone wires are what we refer to as copper landlines or POTS lines.

How POTS lines work

POTS lines physically connect you to the person you're calling.

When you make a call from a landline, the audio from your end is converted from sound waves into analog electrical signals by the telephone handset. These signals travel along the copper lines to the recipient's device, where they're changed back into sound waves. The process is repeated back and forth between the two parties.

Of course, there's not necessarily a direct line that runs between you and the person you want to call. Most calls actually go through various central offices (CO) that route the analog signals to the final destination.

In the early days, central telephone offices with switchboard operators, like the **trailblazing Emma Nutt**, manually connected callers. When this process was automated, the system became known as the Public Switched Telephone Network (PSTN). This early PSTN included only fixed-line analog telephone systems. Over the years, the network has grown to include fiber-optic cables, microwave transmission links and cellular networks. So to distinguish the old from today's PSTN, some in the telecom industry started calling the original PSTN network Plain Old Telephone Service, or POTS for short.

What are POTS lines used for?

POTS lines are still being used to provide phone service in homes and businesses. And many legacy devices, such as fire alarm and security panels and elevator service lines, still use POTS lines.

Fax machines, point-of-sale (POS) terminals and building entry systems are other examples of devices that often rely on traditional POTS lines.

Businesses with these kinds of older devices have been slow to transition away from copper lines and toward next-generation communications systems. However, the large number of devices that rely on POTS lines isn't enough to slow the decline of traditional landlines, dubbed the copper sunset.

How does this impact your business?

"The PSTN is headed toward an inevitable sunset."

The Federal Communications Commission (FCC) said this in August 2019 in describing the original Public Switched Telephone Network (PSTN), also known as analog copper-wire phone lines or plain old telephone service (POTS).

The FCC tightly regulated POTS service through the 1990s, when copper wires were the only way to make phone calls and the internet was still in its infancy. Now the agency no longer sees any reason to require carriers to continue POTS service.

"Policies that encourage reliance on outmoded legacy services, by carriers and customers alike, serve no beneficial public interest purpose," the FCC's 2019 order says. In other words, if your business still has POTS lines, the government's position is essentially that you are on your own in dealing with the situation.

What exactly is that situation? Three things are happening simultaneously.

1. POTS lines are going away.

FCC data shows the number of POTS lines in the United States plummeted from 122 million in 2010 to 41 million in 2019. If copper-wire lines continue to be shut down at the current rate, there will be few or none left by 2026.

2. POTS lines are becoming more expensive.

Telecommunications carriers are pushing through unprecedented price increases for POTS lines as they prepare for the final act in a long, slow technology shift away from traditional copper-wire phone service.

The FCC and state regulators have largely removed price caps on POTS lines. Carriers are taking advantage of this to significantly increase monthly rates even as fees for other telecom services, such as mobile phones, are being driven down by intense competition. The U.S. Bureau of Labor Statistics says the cost of POTS service has risen 36 percent from 2010 to 2021 and could be up 75 percent in 2026 if current trends continue.

Ooma is hearing from our customers that POTS lines for business have gone up, and in some cases, quadrupled! VoIP services for businesses, in contrast, offer far more advanced services at a fraction of the cost.

3. Quality of service for POTS lines is declining.

The increasing cost of POTS lines can be explained because carriers have fewer customers to cover the cost of maintaining copper-wire infrastructure, such as phone poles and switching centers.

However, it appears at least some carriers are simply maximizing opportunities with a captive audience while giving less attention to their POTS networks.

The California Public Utility Commissions, or CPUC, in an April 2019 report found multiple instances of neglect by the state's primary provider of POTS lines.

The challenge for business

These three trends are creating an obvious squeeze on the millions of businesses that still have POTS lines.

The low-hanging fruit in the transition from POTS to VoIP has already been plucked. Larger businesses have almost entirely transitioned away from copper-wire phone lines and small businesses are making the shift as well. But why are there still businesses who need POTS? Three main reasons:

Inertia. Many businesses have had POTS lines for years and never got around to making the switch. That resistance will be harder to maintain as monthly rates continue going up.

Reliability. POTS lines often continued working during a power failure, because copper phone wires have their own power source. However, as the CPUC report illustrates, carriers are cutting back on POTS infrastructure in ways that increase the frequency and duration of outages.

Legacy devices. This is the toughest challenge. There are millions of mission-critical legacy devices in businesses that require a POTS line to function, ranging from fire alarm panels to elevator phones, fax machines, public safety phones, building access systems and more. Because of regulatory requirements or lack of internet access, many of these devices can't make the transition to VoIP.

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What can you do about it?

The solution for legacy devices is POTS replacement.

Ripping out legacy devices as a response to copper sunset is often impractically difficult or expensive. The alternative is POTS replacement, a solution that provides a digital connection that looks like a standard POTS line to the legacy device.

Ooma AirDial™ (www.ooma.com/airdial) is an all-in-one POTS replacement solution that includes hardware, data, and phone service for one low monthly rate. You can keep using your existing communications, life safety and alarm systems, while saving significant money on your monthly phone bills.

Built with the applicable guidelines of UL, NFPA 72, and ASME A17.1B in mind, Ooma AirDial supports:

Fire facility and burglar alarm panels

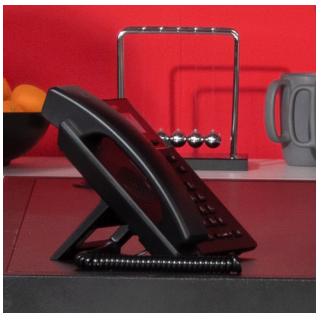
Elevator phones

Public and blue light safety phones

Pool phones

Building access systems

Fax machines



Backup phone service

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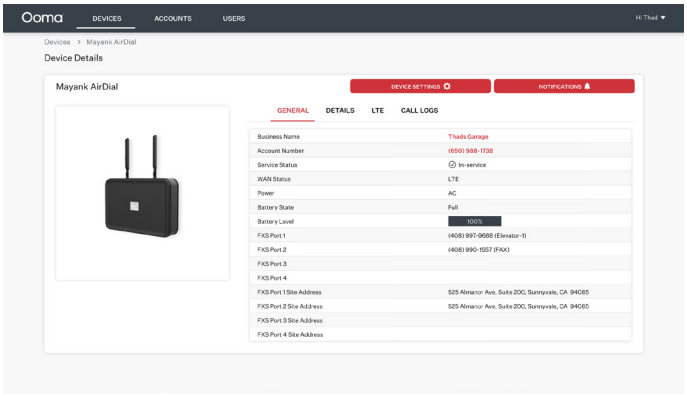
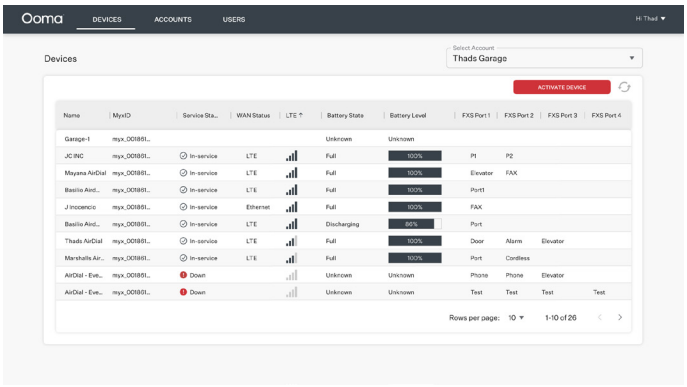
Installation is simple. Attach Ooma AirDial to any wall or place it on any flat surface. It can easily be configured to provide LTE failover for mission critical VoIP lines. You can also rely on our expert support team to install the device and provide training for your business.

You get complete visibility with our intuitive portal that allows you to monitor and manage all your AirDial-connected systems from a single screen. You can get automated email and text alerts should any AirDial-connected device go offline and when the backup battery takes over or runs low.

Ooma AirDial routes all communications over network paths that are proactively managed and maintained by MFVN-compliant providers, so communications do not cross the public internet.

Ooma AirDial keeps working for at least 8 hours during power failures with the battery backup. Of course, 24/7 support is available should you have any questions.





About Ooma

Ooma provides leading communications services and related technologies that bring unique features, ease of use, and affordability to businesses of all sizes and residential customers through a smart cloud-based SaaS platform.

Ooma is a cloud expert because we were born in the Cloud. Ooma has more than two million users and is recognized by readers of PC Magazine as the best business VoIP phone service for nine consecutive years.

We set ourselves apart from our competition by delivering personalized service and solutions tailored to your business, and we provide outstanding business value.

Interested in learning more? Contact us at (866) 839-5810 for a free consultation.