

Alternatives to Landline Telephone Providers

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Brief History

- 10 March 1876: Alexander Graham Bell first successfully transmits speech, saying "*Mr. Watson, come here! I want to see you!*" using a liquid transmitter as described in Elisha Gray's patent caveat, and Bell's own electromagnetic receiver.
- 10 August 1876: Bell makes the world's first long distance telephone call, about 6 miles between Brantford and Paris, Ontario, Canada.
- 9 July 1877: The Bell Telephone Company, a common law joint-stock company, is organized by Alexander Graham Bell's future father-in-law Gardiner Greene Hubbard, a lawyer who becomes its first president.
- 20 March 1880: National Bell Telephone merges with others to form the American Bell Telephone Company.
- 3 March 1885: The American Telephone & Telegraph Company (AT&T) is incorporated as the long-distance division of American Bell Telephone Company. It will become the head of the Bell System on the last day of 1899.
- 25 January 1915: The first transcontinental (coast-to-coast) telephone call (3600 miles), with Thomas Augustus Watson at 333 Grant Avenue in San Francisco receiving a call from Alexander Graham Bell at 15 Dey Street in New York City, facilitated by a newly invented vacuum tube amplifier.
- 1919: The first rotary dial telephones in the Bell System installed in Norfolk, Virginia.
- 25 April 1935: First telephone call around the world by wire and radio.
- 1946: National Numbering Plan (area codes)
- 30 June 1948: First public demonstration of the transistor by Bell Telephone Laboratories.

Brief History

- 10 November 1951: Direct Distance Dialing (DDD) first offered on trial basis at Englewood, New Jersey, to 11 selected major cities across the United States; this service grew rapidly across major cities during the 1950s
- 1963: AT&T officially announces dual-tone multi-frequency (DTMF) service under its trademark Touch-Tone, and commences commercial service in the towns of Carnegie and Greensburg, Pennsylvania.
- 1970: modular telephone cords and jacks introduced.
- 3 April 1973: Motorola employee Martin Cooper placed the first hand-held cell phone call to Joel Engel, head of research at AT&T's Bell Labs, while talking on the first Motorola DynaTAC prototype.
- 1973: packet switched voice connections over ARPANET with Network Voice Protocol (NVP).
- 1979: VoIP - NVP running on top of early versions of IP.
- 1982: Caller ID patented by Carolyn Doughty, Bell Labs
- 1984: AT&T completes the divestiture of its local operating companies. This forms a new AT&T (long distance service and equipment sales) and the Baby Bells.
- 1987: ADSL introduced
- 1995: Caller ID implemented nationally in USA
- 2005: Mink, Louisiana finally receives traditional landline telephone service (one of the last in the United States). ([link](#))

https://en.wikipedia.org/wiki/Timeline_of_the_telephone

https://en.wikipedia.org/wiki/Western_Electric

Old phone styles



Old phone styles



Old phones – external links

- [Old telephones as entertainment](#)
- [Bell System Memorial Home Page](#)
- [Antique Telephone History website](#)
- [oldphoneworks.com](#)
- [frillfreephones.com](#)

Phone company abuses

- Requirements to lease/rent phones (up to early 1980's)
- Many people (mostly elderly) still renting phones today ([Consumerist link](#))
- Touch tone fees
- Requirement to get landline service in order to get DSL internet service

Decline in Demand

[More Than Half of American Homes Don't Use a Landline](#)

[According to a new report from the Centers for Disease Control](#), more than half of American households (51.7 percent) don't regularly use a landline phone. The majority of those (35.8 percent) don't have a land line at all and another 15.9 percent have the line, but say they don't use them very often if ever.

- The Atlantic, December 2012

Alternatives to traditional Landline Telephone Service Providers

- Cell phones
- Landline phone(s) with any of the following:
 - Cell provider with wireless home adapter
 - Cell phone with landline Bluetooth adapter or landline phone with Bluetooth connectivity
 - VOIP provider with ATA

Terminology

- PSTN – Public Switched Telephone Network
- POTS – Plain Old Telephone Service
- SIP – Session Initiation Protocol
- VOIP – Voice Over Internet Protocol
- ATA – Analog Telephone Adapter
- Number porting: the process of one provider taking (porting) a phone number from another carrier

Why use a landline phone with a non-landline provider?

COST!

- No additional charge for long distance calls to other states
- Porting of existing number is usually available

Disadvantages of non-landline providers

- Customer self-installed
- Limitation of tech help
 - **No on site service!**
- Incompatible with most electronic equipment
 - Security systems
 - Emergency health equipment
 - TIVO/ satellite set top boxes
 - Faxes (somewhat)

Disadvantages of non-landline providers

- Landline phone with cell provider – dependency on cellular provider
- Landline phone with VOIP provider – dependency on both internet provider and local power

One other consideration of moving from a traditional landline provider

- Most cable and traditional phone providers try to lock customers into contracts. If a customer cancels service before a contract has ended, an ETA (early termination fee) is charged. The ETA is usually based on the time period remaining.

Using landline phone with wireless home adapter through cell provider

- Available from Verizon, Sprint, at&t, and Straight Talk
- ST is \$15/month, the others are \$20/month.
- Some providers will provide adapter for free with signed contract for service
- Each model has a battery backup
- If using existing premise wiring, you must disconnect from current phone provider



at&t



Sprint®



Using landline phone with [Xlink](#)

- Two models, BT (no existing landline) and BTTN (works with existing landline)
- Up to three cell phones can be paired
- Make and receive calls through cell's Bluetooth connectivity function
- Address book is copied during pairing so Caller ID phones can display both name and number



Using landline phone with [Cobra Phone Lynx](#)

- Serves same function as Xlink devices
- Cheaper selling price
- Up to two phones can be paired
- Has installable app for Android users that adds additional features



Using landline phone with built-in Bluetooth

- Models available from Panasonic, Uniden, V-Tech, and AT&T
- Number of paired cell phones varies
- Make and receive calls with either cell or existing landline (if available)
- Address book is copied into phone during pairing so Caller ID can display both name & number



Using landline phone with VOIP provider

- All require purchase of branded or third party ATA
- Most have e911 service, but the customer needs to be able to talk to operator
- If using existing premise wiring, you must disconnect from current phone provider
- Broadband connection should be at least 3mbps down
- Requires available network connection on your router, or a strong wireless signal on supported devices
- Setup of service, along with bills and payment information is all done through provider's sites



- Incorporated 2001, offered service in 2002
- Varied calling plans geared towards residential, small business, and worldwide use
- Toll-free, virtual number, and dedicated fax line features available at extra cost
- Professional installation is available
- 24x7 tech support



magicJack

- New 2014 Plus version does not require being connected to computer to use
- WiFi compatible
- Annual cost per year is \$30, or \$20/year if 5 year plan is picked
- Numbers ported to MJ have a fee of \$20, **but \$10 annually afterwards** (on top of annual service)
- Numbers ported away from MJ incur a \$30 fee
- Tech support is through email and web chat; no live support



netTALK

- Product line is three devices- DUO, DUO II, and DUO WiFi
- Same form factor as Magic Jack
- Allows setup from Windows, Mac, and Android
- Allows for video conferencing when used with Windows
- M-F live tech support





- Telo unit resembles digital answering machine and has touch controls for accessing voice mail
- Wireless and Bluetooth modules available
- Two levels of service, Basic and Premier
- Basic service is free + taxes and fees; Premier is \$10 + taxes and fees
- Can be used with existing landline
- M-F live support, with reduced hours on weekends





- Cost is currently free, \$20 to port number from mobile
- Long list of features
- Support is limited to message bases and email
- Stores voice mails as messages that you can play back through either a computer or any phone
- Can forward to multiple phones
- Can use with an existing landline to make free calls to all 50 states + Canada
- No direct porting from landline, but can be done through cheap pay-as-you-go phone from any provider
- **No emergency calls!**



with



- Google Voice was designed to be used with existing phones, but Obihai ATAs extend the functionality to serve as a full landline
- Obi110 can be used with existing landline, Obi200 and 202 have USB port for wireless or Bluetooth adapter
- All Obihai units can be used with other SIP providers



Other VOIP providers

- [CallCentric](#)
 - [Voip.ms](#)
 - [Phone.com](#)
 - [VOIPo](#)
 - And quite a few others
-
- [Review](#) of VOIP services on previous pages from tmcnet.com

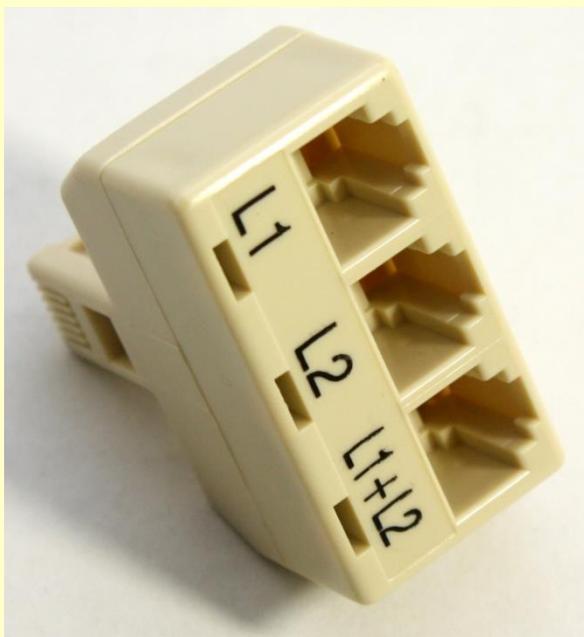
Other ATA manufacturers

Models available from Cisco, Linksys, Grandstream, and others



Combining VOIP service with traditional land line

- If it is not possible to discontinue service from a traditional provider, a way to save money is to get a new number at the lowest service level and then port the main number to a VOIP provider. With the use of an L1 + L2 adapter, it is possible to have the VOIP service on the inner pair and the existing phone service on the outer pair.



Examples of landline phone equipment



Examples of landline phone equipment



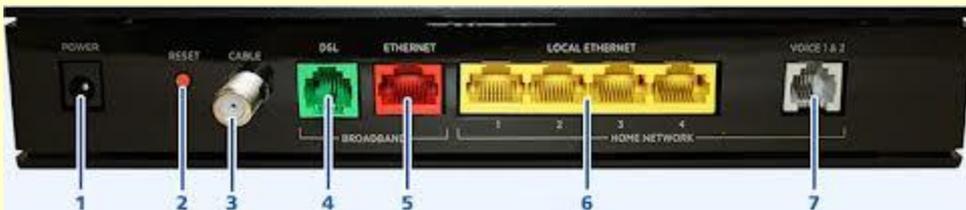
Examples of inside landline phone equipment (cable)



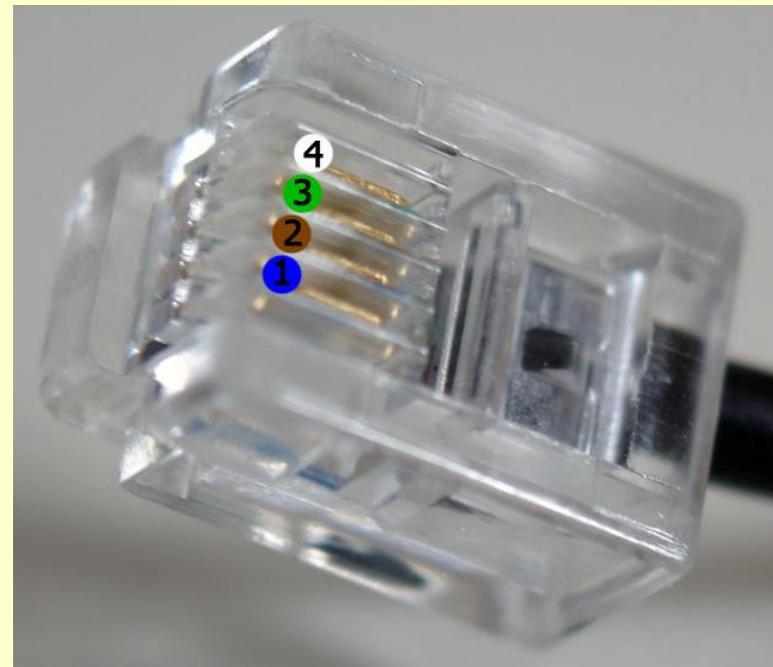
Both of these are eMTA (embedded Multimedia Terminal Adapter) devices, which have a cable modem and telephone circuitry inside one box with a battery backup.



Examples of inside landline phone equipment (AT&T U-verse)



Existing common RJ11 Jacks + Plug



Looking to the future - jacks



[Monoprice](#)

Common VOIP phones in businesses



External links

- [Voip My House](#)
- [Voip-Info.org](#)
- [Voip Supply](#)

Looking to the future - predictions

- Routers will start to have ATA capabilities
- Within 5 years – IP phones will start showing up on the shelves of retailers, many with wireless connectivity
- Within 10 years – RJ11 jacks will be phased out from new construction, in favor of RJ45 Ethernet jacks