

Information about the discontinuation of ISDN calling by the 31.12.2017.

Be ready for the communication of the future!

Conventional landline calling is slowly but surely being replaced by IP calling (VoIP). Therefore, Swisscom has decided to discontinue traditional ISDN (TDM) calling by 31.12.2017. For you, this means that all communication services in the future will operate exclusively through the IP network.

Business Sunrise is already using VoIP-based connection products. This means that connection via IP to our customers' locations is being set up. This VoIP connection can then be set up on-site with appropriate terminals (CPEs) as a VoIP (SIP trunk) or as an ISDN (BRI or PRI) on the telephone system. As an alternative to connecting the telephone system on-site, we also offer cloud-based calling solutions.

With Business Sunrise, you will have no problems once traditional ISDN/TDM calling is discontinued, and you can decide for yourself at any time when you would like to switch to the world of Voice over IP (VoIP).

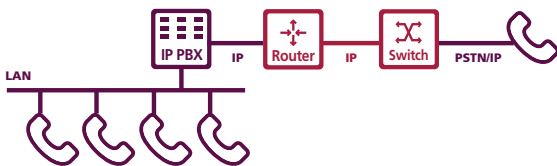
1. What solutions are available?

Basically, all modern calling solutions – regardless of whether they use an on-site telephone system or a cloud solution – are based on the Voice-over-IP standard.

Solutions via VoIP

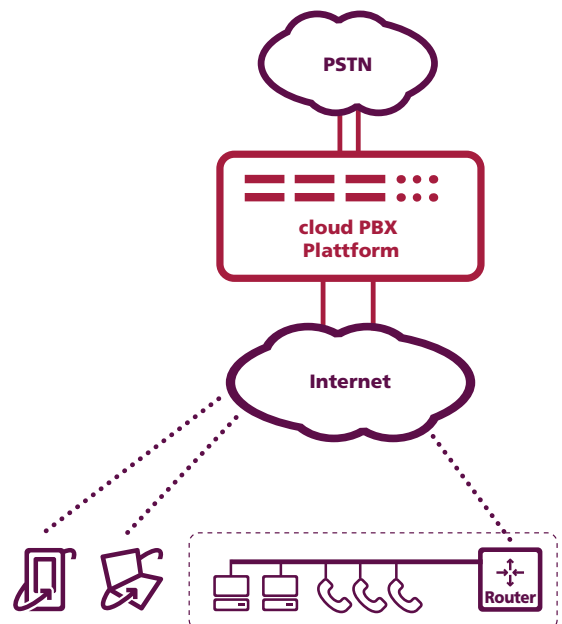
Business voice direct

Connecting the telephone system via a VoIP connection using a SIP trunk (up to 120 voice channels)

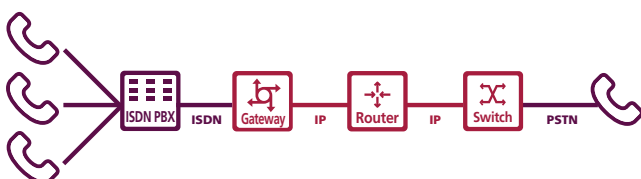


Business cloud PBX

Telephone system from the cloud and connection via Internet



ISDN with VoIP Gateway (up to max. 14 BRI or 6 PRI)



1.1. Companies with one phone system

Companies with one phone system can easily port their telephone line to Business Sunrise. The existing phone numbers are retained and the existing ISDN telephone system can continue to be used. This also applies if the change is made at a later date. Of course, new IP telephone systems can immediately be connected via SIP trunk.

As an alternative, the telephone system can be replaced by a cloud solution (Business cloud PBX). In this case, all that's needed is an Internet connection with sufficient bandwidth for making calls.

1.2. Companies with no phone system

Companies using the traditional ISDN multiline or EconomyLine connections must adapt their infrastructure in the future to IP-based solutions. Business Sunrise already offers an appropriate solution for this. The existing phone numbers can be retained. But the ISDN telephones must be replaced with IP telephones. The connection to the public telephone network is established via the Internet.

2. What happens with the special solutions?

Many companies are using analog EconomyLine connections for alarm systems, elevator phones, fax and modem applications. However, analog telephone lines will no longer be available anywhere in Switzerland as of 31.12.2017. Therefore, we recommend that these companies start thinking now about an appropriate change in technology and seek advice from us regarding the best possible customized solutions.

2.1. Elevator phones

For elevator phones, we recommend switching to mobile network-based systems. These solutions are well-proven in practice and are offered by all the leading elevator manufacturers. By accessing multiple mobile base stations, the redundancy of the connection increases, particularly in inner city areas. In exceptional cases where there is insufficient in-house mobile network coverage, we will work together with you to find an appropriate solution.

2.2. Alarm systems

Alarm systems that currently transmit their alarms via analog or ISDN connections must be converted to IP-based solutions by 31.12.2017. The alarm system manufacturers have appropriate solutions for this.

- **Landline IP/Mobile redundancy:** The best solution. A simultaneous landline IP and mobile connection is more secure than the existing landline solution via ISDN or analog connection.
- **Mobile network connection:** In most cases, a simple transmission via mobile network is sufficient. Many alarm systems are already set up for this type of alarm. No additional installation is required.
- **Landline IP connection:** In most cases, simple transmission via landline IP meets the requirements. Considering the emergency power supply for the router, this type of transmission corresponds to today's transfer via ISDN or analog connection. Many alarm systems can be relatively easily converted to IP.
- **Analog-IP converter/modem over VoIP:** From a purely technical point of view, solutions in which the alarm systems' analog signal is converted into a VoIP signal are also possible. But a secure transmission cannot be guaranteed. Therefore, we do not recommend this option.

2.3. Modem applications

Many applications still communicate via modems, which convert signals into speech. Switching to IP therefore makes sense and is more efficient in this case. We recommend that you contact the suppliers of these systems as quickly as possible and seek advice about appropriate solutions. Connecting the modem by means of a converter to the IP network is not supported by Business Sunrise, since we cannot guarantee error-free transmission.

2.4. Fax

Analog fax services will disappear from the market over the medium to long term. These services are gradually being replaced by IP-based solutions such as eFax (fax via PC) or e-mail. Basically, analog fax machines can continue to be used in an IP environment via analog IP converter. However, fax services in an IP environment do not achieve the same reliability as in the analog world. Therefore, the error-free operation cannot be 100% guaranteed in each case. In general, we recommend the following with the integration of existing fax machines via analog-IP converter:

- turning off the error correction mode on the fax machine
- reducing the transmission speed on the fax machine (max. 9600 bps)

3. Power supply for IP solutions

Unlike traditional ISDN or analog connections, IP connections always require an additional power supply. The power autonomy that exists today with Swisscom with the traditional ISDN and/or analog connections can no longer be guaranteed with IP solutions. This means that the Internet router must be protected in the event of a power failure by means of an emergency power supply. Business Sunrise is currently reviewing the use of compact CPEs with an independent battery power supply in order to bridge any short-term interruptions in the Swiss power grid.

Do you have any other questions? If you require any further information, just give us a call.

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