

# VOIP CONNECTIVITY

## SUMMARY

More than two decades ago, in 1995 a company called VocalTec released a history-changing product, called Internet Phone, nowadays, companies and people are calling this a VOIP – voice over IP. This technology gives the possibility to use the internet, not only for browsing or sharing files, but also enables phones, fax machines, and other devices to use the same internet for telecommunication avoiding old telephony lines altogether. According to Statista, the VOIP market in the EU in 2017 exceeded more than 14 billion US dollars.

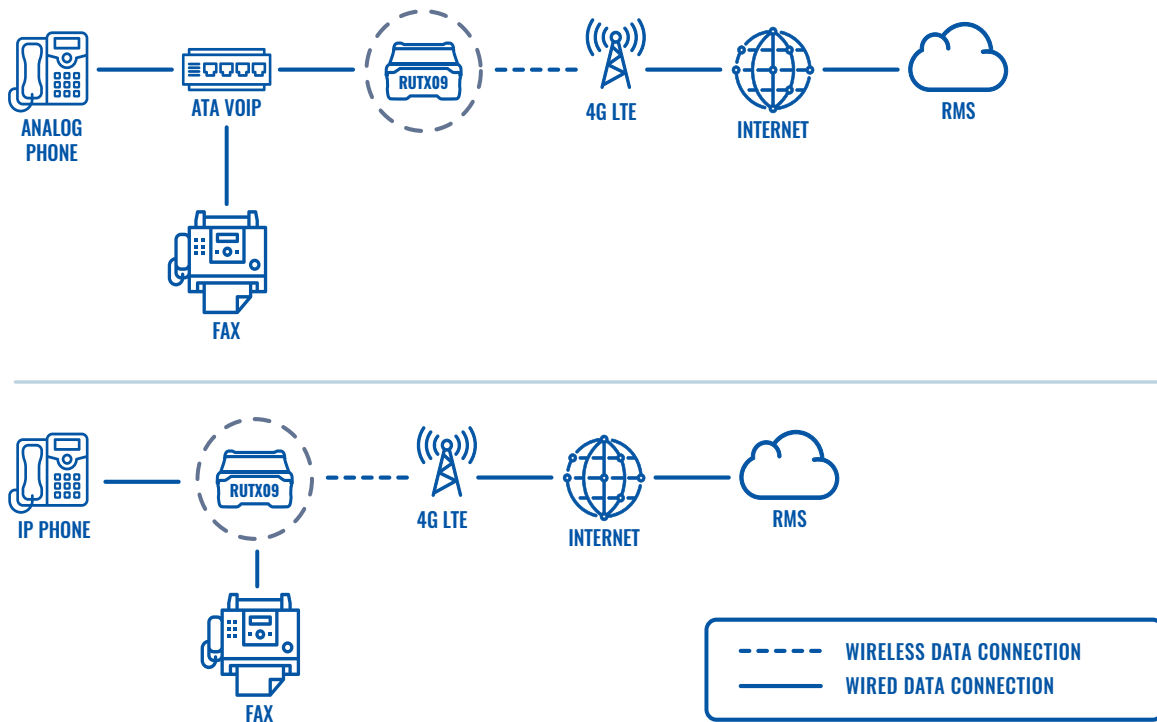
## CHALLENGE

The VOIP market is projected to grow rapidly. Usually, VOIP is used in business due to the simple implementation, scalability, and more attractive pricing. Besides, most operators are not investing in old telephony lines anymore and are offering VOIP as the primary option for phone communication. Some offices can have only a few IP phones, but many enterprises operate hundreds of IP phones at a single location. One key ingredient to all VOIP solutions is access to the Internet. Of course, it must be reliable, stable, and secure. In most cases, businesses are using cable internet; however, expanding this infrastructure takes time and considerable investment. Growing demand for Internet-based solutions and VOIP in emerging markets, rural and remote locations leaves ISPs struggling to fulfil time and cost targets to local public and private institutions. For this reason, businesses are investing in alternative connectivity methods and adopting new technologies that are scalable, quick to deploy, and reliable.

## SOLUTION

There are two most common VOIP technologies used in business companies; The first one enables VOIP by using ATA – Analog Telephone Adapter, and another is set-up by merely using an IP Phone. Both two ways, works well, the only difference is that using an IP phone, companies do not need to use ATA and ordinary phone.

## TOPOLOGY



Generally, using IP Phone is preferable, because the fewer components solution has, the less probable for one of them to malfunction. However, if you have standard analog phones in place, replacing them with IP phones is going to be more expensive. Regardless, both solutions need a reliable Internet source. When VOIP solution is necessary for areas where the Internet by cable is unavailable, expensive, or unreliable – cellular connectivity devices are the best solution! As indicated in the topology, RUTX09 is a great choice here, since it has 2 SIM cards for internet backup and 4 Gigabit Ethernet ports. You can directly connect it to an IP phone or ATA. Furthermore, Teltonika Networks routers and gateways are equipped with significant security mechanisms to suit strict cybersecurity requirements of enterprise clients, including multiple VPN options, firewalls, attack prevention tools. Using RMS – remote management system, companies can grant full control and remote monitoring of every Teltonika router in the office, generate alerts and notifications, get status reports for understanding how much data was used etc.

## BENEFITS

- Powerful – RUTX09 has 4G LTE Cat 6 with carrier aggregation capable of 300 Mbps throughput.
- Uninterruptable connection – with Dual-SIM functionality, RUTX09 adds connection reliability in areas where one cellular operator might struggle to offer dependable service.
- Security – RUTX09 firmware includes multiple VPN's and firewall for security.
- Quick to deploy – RUTX09 is fully compatible with Teltonika Remote Management System, allowing system integrators to set-up and manage an infinite number of routers remotely.

## WHY TELTONIKA?

We specialize in cellular connectivity and network devices that are secure, reliable, and easy to use. With partners in 130+ countries, Teltonika Networks has an excellent track record offering devices that provide connectivity in most challenging professional applications. RUTX series devices encompass multiple years of experience and R&D and are excellent for VOIP and rural connectivity deployments.

