

# Sangoma Telephony Cards

## Powering Large Retail Businesses for WAN Data Routing Services



### Do You Need to provide data routing services over a T1 connection for Grocers, Pharmacies or other large retailer?

Sangoma Telephony cards integrate into your existing hardware appliance capable of transferring from 1.544 Mbps up to 32.8 Mbps of full duplex data. The included routing driver and API suite provide extensive flexibility and work with your software to transfer WAN protocol data such as CHDLC, Frame Relay, X.25, ATM, PPP, HDLC, AND MULTILINK

The Sangoma T1 / E1 telephony cards read Point-Of-Sale (POS) traffic transmitted between registers and store controllers, then filters the data before passing it to a host PC. The cards can be configured to read the loop data of most store POS systems. They are used throughout the Point-of-Sale industry for coupon printing, store promotion, security systems and for gathering sales and customer data.

### Benefits for OEM Providers

- ✔ Compatible with virtually any commercial grade appliance
- ✔ Works with existing host system software via router driver and API suite
- ✔ POS (Point-of-Sales) interface cards for use in retail environments.
- ✔ Technology licensing to OEM manufacturers
- ✔ Private-label (OEM) communications cards
- ✔ Managed using the same server tools and utilities that manage the rest of the network



### A T1 internet connection is more reliable than 4G LTE?

If you are thinking of using a 4G LTE failover solution, you might want to re-think that idea. T1 Internet is a more reliable and stable source of bandwidth and is often accompanied by a service level agreement (SLA) that guarantees performance levels, and “up times” of 99.9 percent. T1 won’t compete with other Internet customers for bandwidth since it works through a dedicated circuit. You’ll have total access to bandwidth, and that means speed your business can count on.



# Technical Specifications

## Scalability

- » From 1 to 16 ports with a single PCI or PCI-Express interface optimized for high performance voice and data applications.

## Dimensions

- » 2U Form factor: 120 mm x 55 mm for use in restricted chassis. Includes high-quality, tested RJ45 cables and short 2U mounting clips for installation in 2U rack-mount servers.

## Framing

- » CRC-4
- » Non CRC4
- » ESF, SF
- » D4T1/E1
- » Also compatible with Japan's J1

## Line Protocols (Voice)

- » MFC/R2
- » PRI
- » ATM
- » Frame Relay
- » X.25
- » HDLC
- » PPP
- » SS7
- » Transparent bit-stream
- » BSC

## Higher Level Protocols

- » IP/IPX over Frame Relay/PPP/HDLC/X.25
- » X.25 over Frame Relay (Annex G)
- » BSC over X.25
- » SNA over X.25
- » PPPoE
- » PPPoA
- » IP over ATM

## T1/E1 Status Alarms

- » **RED:** Telco Red Alarm Condition
- » **OOF:** Out of Frame
- » **LOS:** Receive Loss of Signal
- » **AIS:** Alarm Indication Signal
- » **RAI:** Remote Alarm Indication (Yellow Alarm)

## WANPIPE®

- » Routing stack is completely independent of TDM voice application for total system reliability
- » Supports certified, field-tested, and reliable Frame Relay, PPP, HDLC, and X.25.

## Supported PBX and Applications

- » Support for Open Source and proprietary PBX, including Asterisk, IVR, and VoIP gateway applications.
- » Supports Robbed Bit Channel Associated Signaling (CAS) and ISDN PRI.

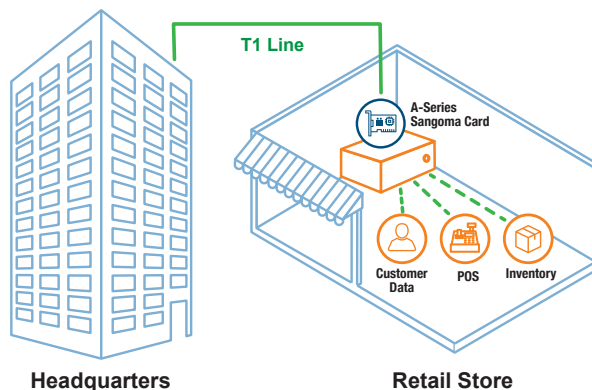
## Intelligent hardware

- » Downloadable FPGA programming with multiple operating modes. Add new features related to voice and/or data when they become available.

## Certification

- » FCC Part 15 Class A
- » FCC Part 68
- » CISPR 22
- » EN 55022
- » Class A
- » CISPR 24
- » AFIC-2016
- » IEC 60950
- » Technical certifications in Russia, Malaysia and Australia. Diagnostic Tools WANPIPEMON, SNMP, System logs

## Application



Sangoma telephony cards integrate into most commercial grade appliances and transmit in-store data to headquarters over a T1 connection, using WAN protocols

