The TSF Emergency Call Centre (TECC) solution is a telecommunication system that enable the use of reliable and efficient IP-based communications in humanitarian emergency situations. Considering that telecommunication infrastructures are mostly affected after a natural disaster (earthquake, floods, tsunami, hurricane, ...), the restoration of telecommunications is the key for ensuring the humanitarian coordination and logistics and to offer free communications to the affected people.

The satellite-based communications are offering a world-wide coverage, with a high reliability and performance level on which Télécoms Sans Frontières relies in emergency for supporting humanitarian community and affected populations. Taking advantage of this network to aggregate multiple VoIP lines is highly valuable to the humanitarian response in the worst situations.

### Features

#### Services
- International calls
- Additional services
- 4-8 analogical phones
- Up to 8 simultaneous calls
- Inbound and outbound calls
- Cost effective

#### Technical
- Satellite optimized solution
- Transportable
- LAN mode (private communications between two TECCs)
- Multiple SIP trunks aggregation
- Customizable packetization time
- Link compression
- Calls routing

### Specifications

**Softwares:** Linux, FreeSWITCH, CSipSimple  
**Codec**: G. 723.1@5.3kbps, G. 723.1@6.3kbps, G. 729@8kbps, G. 711@64kbps A-law  
**Packetization time**: 10-120 ms  
**Protocols**: UDP

The TECC solution has been designed considering the field constraints and the diversity of satellite communication links. Depending on the context, the available bandwidth may be dedicated, shared, less than 496 kbps, or up to 5 Mbits, ... For flexibility reasons, the kit is composed of analogical phones and a power-efficient VoIP gateway. The use of a customizable IP router offers leverage on the bandwidth management, by dedicating an amount of bandwidth to the VoIP lines. Additionally, encryption and compression can be configured to ensure privacy and link optimization.

The network optimizations, traffic shaping and calls routing are carried out by an high performance dedicated server, in charge of centralizing all the Télécoms Sans Frontières field connections in order to offer a wide range of services. The use of this gateway offers an high availability and persistent configuration for interconnection with SIP trunking providers.

**Télécoms Sans Frontières (TSF)** is a leading NGO specialised in emergency telecommunications and new technologies. TSF intervenes across the globe in conflict zones and areas hit by natural disasters and works amongst both affected populations and aid organisations, putting the communication at the forefront of its efforts using ICT and telecoms material in order to benefit those who need it most.