



# Fixed telephony service Evolution over the last 40 years

?? (on behalf of many colleagues over the last 25 years)

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# Agenda

- Where we are
- Where are we going now
- SWOT (not SWAT) analysis
- Bright future – where are we planning to be

# Agenda

- There was a time before Alcatel (and CS)
- A Ferrari in the 90s
- That needed some tuning over time
- To leave place to his replacement
- And start its retirement

# There was a time before Alcatel (and CS)

- Some may remember, r
- Postal Telegraph and Te
- PTT installed a first Swi  
exchange in 1961
- The Hasler was upgrad
- The Hasler was replace  
Telefon OG Kabelfabrik
- Alcatel arrived in 1994 a



# A Ferrari in the 90s

- Alcatel commissioning
- Features
- Cabling

# That needed some tuning over time

- Least cost routing for outgoing calls
- Integration with the mobile service
- Switchboard evolution – Service Desk since 2017
- Infrastructure to IP (2003) and appliance servers (2006)
- First call center for IT HelpDesk (2006)
- Web-based audioconference service (2007)
- IP phones (2009) – end of analogue lines installation
- Fax over IP (2010) – end of analogue faxes

# And a long path to find the right softphone

- Alcatel softphone solution trial - 2005
- Nortel softphone solution trial - 2006
- Skype integration & Asterisk assessment - 2007
- Microsoft Office Communications Server assessment and integration – 2008
- Voicemail to Exchange as a service - 2010
- Lync as a service - 2012
- WebRTC assessment - 2013
- BRAINS (Boîte pour Reduire l'Alcatel et Introduire des Nouveaux Services) - 2014
- TONE (Telephony Open-source Network Evolution) - 2015

# And start its retirement (roughly 8 years)

- Backend: TONE
  - Has replaced the Alcatel functionalities since 2016
  - Has replaced the call centers in 2023
- Frontend and clients:
  - DIAL (frontend solution developed by IT-CDA)
  - Skype for Business (default client solution until Malt)
  - CERNphone (frontend and client solution since 2020)



# Just a word about TONE & CERNphone

- Modern infrastructure based on open-source and standard IT components
- Service based on open standards and protocols
- Focused on software-based solutions
- Capacity to easily develop and customize new services
- Low TCO and operational costs
- Future proof

Questions?

# Evolution of Phone

