



mobileXess LTE

The smart access solution – everywhere,
anywhere, independent

Istanbul, September 2018

- Introduction
- Solutions
- Technical Overview
- Summary



VoIP gateways bridging the technologies

Enterprise

Data & voice access
Remote locations
Backup / Survivability
Security
Device access & management



Carrier

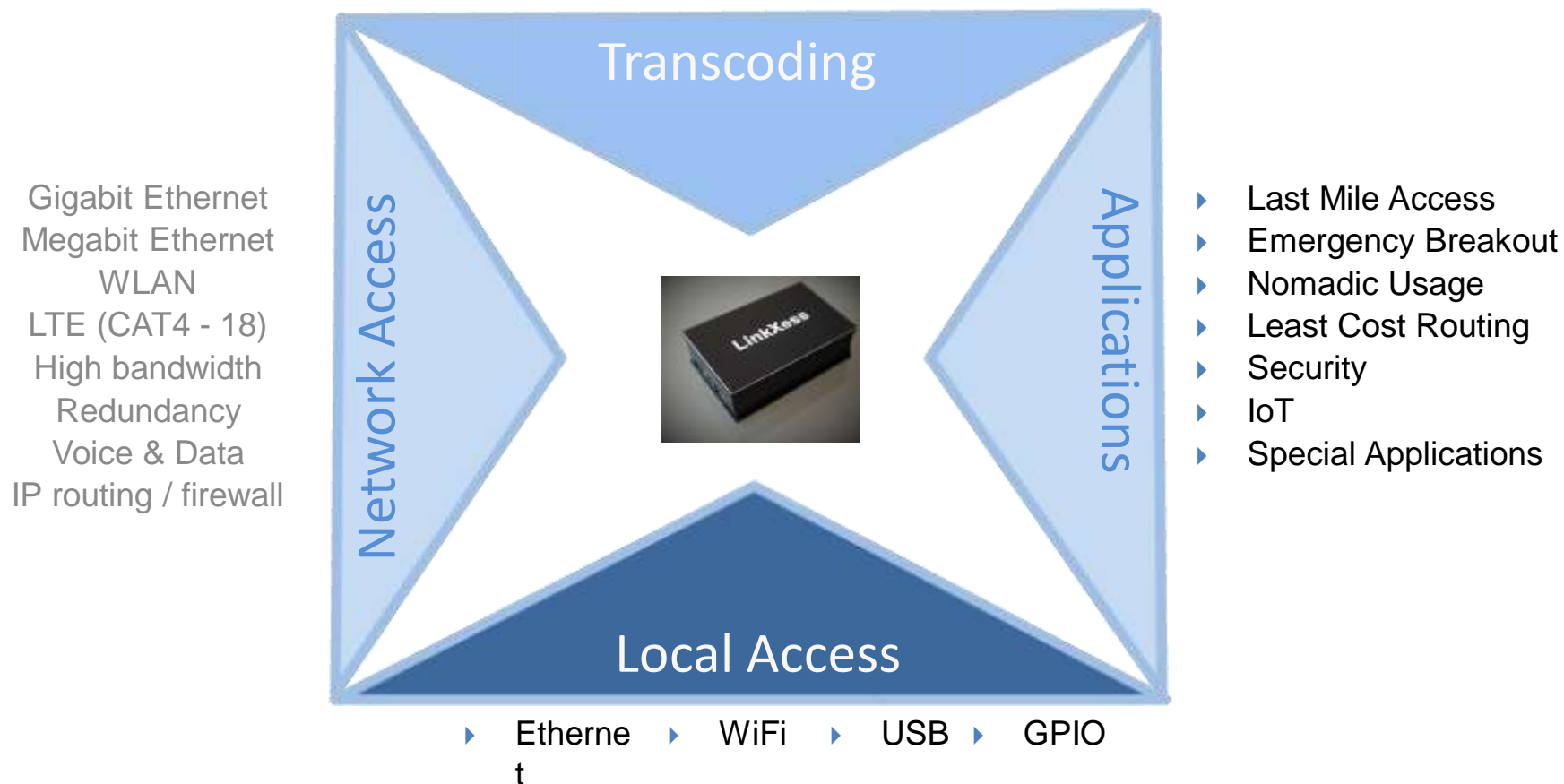
Mobile network
Immediate service everywhere
Country / global wide
New services
New markets

- Last Mile Access
- Emergency Breakout
- Nomadic Usage
- Security
- Internet of Things (IoT)
- Special Applications



mobileXess LTE for various access use cases

- ▶ Encryption
- ▶ VPN
- ▶ Channel Bonding
- ▶ Codecs
- ▶ Anonymous



Deploy communication infrastructure for voice and data in any location at any time

Customer access via mobile network

- Data & voice ▶ communication service at any location
- New infrastructure ▶ high investments & time consuming
- Data access over LTE ▶ increase bandwidth

✓ Voice and data access through LTE

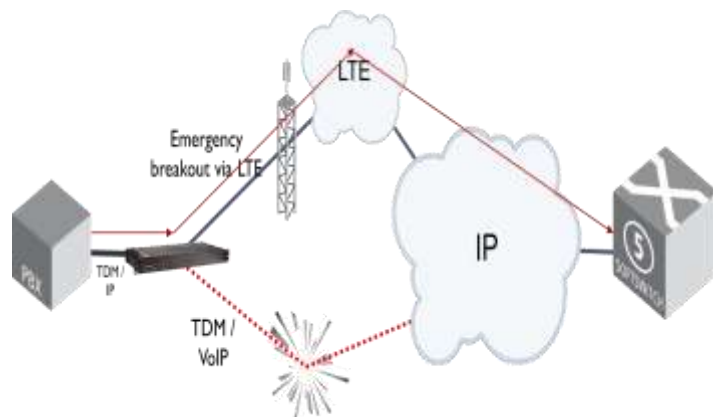
- Use existing mobile network access for voice & data
- Independent of location
- Establish IP access with high bandwidth throughput via channel bonding
- Security features like VPN
- Easy & fast setup with existing mobile networks
- Easy & fast integration in existing mobile networks



Emergency break out with physical independent backup access through LTE

Temporarily unavailability of IP or TDM access

- Access ▶ no incoming & outgoing external calls, no emergency calls, infrastructure is offline
- Hosted PBX ▶ no internal & external calls at all



- ✓ Backup redundancy using LTE
 - Easy & fast integration in existing mobile networks
 - Establish IP access with high bandwidth throughput
- ✓ Integrated registrar for voice services
 - Emergency failover for hosted PBX users
 - Provides voice services in case of hosted PBX is down
- ✓ Temporary voice & data access through LTE
 - High bandwidth with LTE
 - Increase redundancy by using two separate mobile networks

Provide your customer with immediate communication services – everywhere, anytime, independent

New location – WAN infrastructure available?

- Independent ▶ no matter where
- Moving ▶ no matter when & where
- Security ▶ trusted environment

✓ Data and voice services through LTE

- Use existing mobile network access for voice & data
- Independent of location
- Establish IP access with high bandwidth throughput via channel bonding
- Trusted environment with security features like VPN
- Easy & fast setup everywhere with existing mobile networks



Secure access to a trusted network for enterprise locations & employees – independent of environment & place

Trusted environment for any application

- Independent ▶ no matter where & what
- Security ▶ trusted & secure environment & link

✓ Encrypted data and voice services through LTE

- Use existing mobile network access for encrypted voice & data
- Independent of location
- Establish IP access with high bandwidth throughput via channel bonding
- Trusted environment with security features like VPN
- Using anonymous features for avoiding tracking
- Easy & fast setup everywhere with existing mobile networks



Connect & maintain machines and systems with redundancy and security features based on LTE

Internet of Things

- Access ▶ everywhere, anytime
- Security ▶ secure link, trackable, trustable
- Maintenance ▶ Alarming, provisioning, remote management



- ✓ Date access via LTE
 - Easy & fast integration in existing mobile networks
 - GPIOs for alarming & controlling
 - High bandwidth for 'big data' & video monitoring
- ✓ Security
 - VPN & encryption
 - GPS
- ✓ Redundancy with multiple LTE channels

Setup local data & voice networks in special occasions with a longhaul LTE access can save lifes

✓ First Responder Vehicles

- Ethernet & WLAN for near field / LAN access
- LTE for WAN access
 - Redundancy / backup based on multiple networks
 - VPN, Internet, private network access at the same time



✓ Vessels

- Enhance/replace satellite communication near-cost with LTE
 - Increase bandwidth
 - Reduce costs
- Data & voice



✓ Communication Network in a Backpack

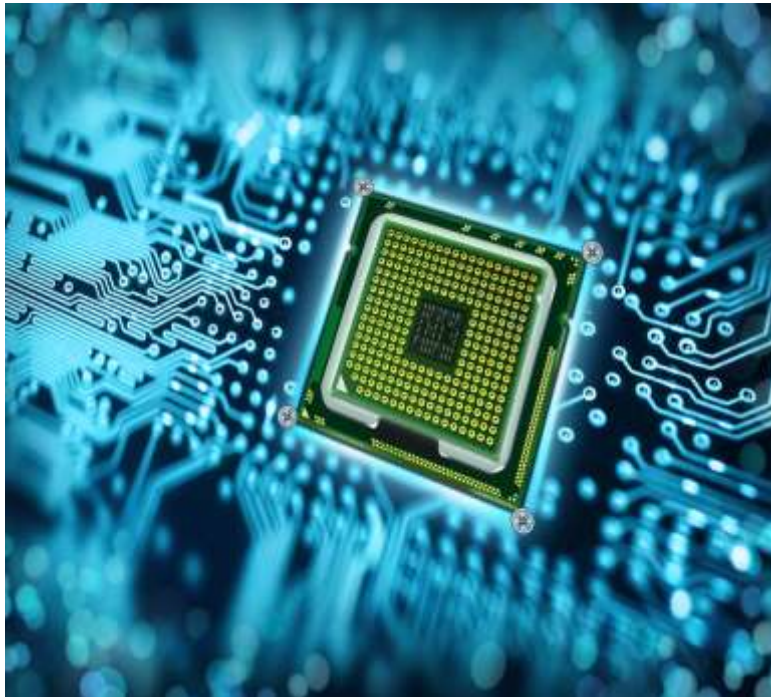
- WLAN for near field / LAN access
- LTE for WAN access
 - Redundancy / backup based on multiple networks
 - VPN, Internet, private network access at the same time



- Design
- Technology
- Options
- Datasheet



High performance state-of-the-art architecture providing services and features today and tomorrow



➤ Architecture

- Quad-core ARM processor (1 GHz)
- 512 MB RAM plus 8 GB Storage
- Gigabit Ethernet

➤ Mobile Access

- Up to 8 LTE ports
- Data, voice & SMS support based on LTE
- Local SIM or cloud-based SIM
- MIMO with just two SMA antenna outputs

➤ Optimized design

- Power consumption less than 15 Watt
- Passive cooling – no moving parts

The open hardware and software architecture allows different options for specific use cases



➤ Local Access

- Megabit or Gigabit Ethernet
- WLAN

➤ Mobile Access

- 3G(UMTS), 4G(LTE), 4.5G, 5G
- 1, 2, 4, 6, 8 mobile ports
- GPS/GNSS
- LTE: CAT4, CAT6, CAT12, CAT18
- FirstNet support (band 14 – USA)
- Various regional versions

Various solutions based on mobileXess LTE with two LTE channels

✓ 4G/LTE – two LTE channels

Data, voice, SMS

CAT4 – Options: CAT6, CAT12, CAT18

Fallback to 3G & 2G

Local & cloud-based SIM management

✓ High throughput & security

Channel bonding

Encryption, VPN

Gigabit Ethernet, WLAN

✓ General

Full IP & firewall capabilities

VoIP & integrated SIP registrar

Remote provisioning

Wide range DC power input: 6V to 60V

Low power consumption (less than 15W)

VARIANTS		
Model	LTE	Countries
mobileXess LTE 2	2	EMEA, Korea, Thailand
mobileXess LTE 2	2	North America
mobileXess LTE 2	2	Verizon
mobileXess LTE 2	2	World

INTERFACES	
Ethernet	10/100/1000 Base-T RJ-45
Antenna	MIMO: 2 x SMA female (MAIN, AUX) GNSS: 1 x SMA female (optional)
SIM	2 x SIM card slots micro SIM Cloud-based SIM
USB	USB 2.0
Power	6 - 60 VDC, 15W

PHYSICAL PARAMETERS	
Size (W x H x D)	148 x 42 x 75 mm
Material	Aluminium
Mounting	Desktop

ENVIRONMENTAL CONDITIONS	
Temperature	+5° C to +50° C
Humidity	5% to 80% (non-condensing)

CERTIFICATIONS	
EMC, Safety, CE	

mobileXess LTE – the smart access solution

✓ High scalability

- Up to 1 Gbits bandwidth based on multiple LTE channels & channel bonding
- Antenna combiner

✓ High Availability & Security

- Multiple LTE channels for redundancy, backup & bandwidth increasement
- Encryption, VPN, anonymous functions
- Redundant power supply
- Distributed processor architecture
- Passive cooling - no moving parts
- GPS/GNSS

✓ Enhanced Feature Set

- Data, voice & SMS
- Cloud-based SIM management
- Integrated IP router & firewall
- Integrated VoIP router / registrar
- Remote provisioning / management



**THANK YOU
FOR YOUR TIME**

LinkXess
intelligent access technologies