



Annual General Meeting

16 February 2023

Agenda

1. Welcome and apologies
2. Minutes of previous meeting
3. Matters arising
4. Report for 2022
5. Election of officers
6. Events in 2023
7. Education, Training & CPD
8. Treasurer's report for 2022
9. Standards and regulations
10. Any other business
11. Date of next Annual General Meeting



1. Welcome and Apologies

Adam Scott



2. Minutes of Previous Meeting



Lifts Group

Minutes of the CIBSE Lifts Group AGM 2 February 2022



The Chartered Institution of
Building Service Engineers
222 Balham High Road
London SW12 9BS
Telephone 020 8675 5211
Facsimile 020 8675 5449
www.cibse.org

PRESENT

Refer Registered Attendees list.

APOLOGIES

David Cooper
WeeChuan Lim

DISTRIBUTION

Those present, apologies and web site

1. Welcome and apologies

The meeting was opened by AS.

2. Minutes of previous meeting

The previous minutes were reviewed and accepted without amendment.

3. Matters arising

-

4. Report for 2021

RP presented a summary of the activities for 2021. The slides for this presentation are attached to these minutes.

5. AGM Elections

There had been no new officer nominations received following the AGM announcement. The following will remain for the 2022 Executive:

Chair & BSi Representative	ADAM SCOTT
Vice Chair	MICHAEL BOTTOMLEY
Secretary	WEE CHUAN LIM
Treasurer	RICHARD PETERS
Events Organiser (North of England)	PHILL PEARSON
Events Organiser (South of England) &	GINA BARNEY
Technical Editor CIBSE Guide D	
Event Exhibition	JOHN BASHFORD
Training Development	DAVID COOPER
Press & Publicity	PHIL PEARSON
LEIA Representative	NICK MELLOR
University of Northampton Representative	STEFAN KACZMARCZYK
SAFED Representative	VINCE SHARPE
International Representative USA	RORY SMITH
International Representative AU	JOHN CARROLL

6. Events in 2022

GB reported that the Executive were planning the following seminars/events:

- Seminar and AGM 02 Feb 2022.
- Firefighters and Evacuation Lifts, 7 June 2022 (Manchester)
- Lift and Escalator Symposium, 21-22 September 2022
- Annual Seminar, 29 November 2022 (London)
- Evening Meeting and AGM (7 Feb 2023)

RP reported that the Symposium on Lift & Escalator Technologies will be held in person and online in 2022. 13 papers confirmed, will be a full programme. Registration is LIVE

Full details of these events and instructions on how to book will be posted on the web site www.cibseliftsgroup.org.

AS extended an open invite to the group to suggest topics for future seminars.

7. Education, Training and CPD

AS: Highlighted the changes to the CLG website with more information and knowledge sharing focus posted over the past year. developing the CLG website as a source of information. (Link to CLG Learning Portal: <https://www.cibse.org/lifts-group/learning-portal>)

GB: we have posted a number of youtube clips on the CLG pages for easy access. (Link to CLG Seminar 01: "Fire Fighters and Evacuation Lifts" <https://www.cibse.org/Lifts-Group/Learning-Portal/Presentation-and-Videos/CLG-Seminar-2022>)

GB reminded the need to maintain CPD records. Approx. 10% of members are randomly selected to formally present their CPD records. If members fail to provide the records, they will be referred to the professional conduct committee (which GB is part of) and may be removed from the institution.

AS: training and education/knowledge will come into focus off the back of the upcoming Building Safety Bill. More formal requirements to demonstrate competence to practise will be likely.

8. Treasurer's report

A copy is attached to these minutes. Donation to the LES Education Trust to answer appeal when the LES was cancelled.

RP: not much activity in the past year. RP banked in £1 to keep the account open. have to rethink the account moving forward as HSBC has started charging monthly. Expect a significant addition from the proceeds of the 2 Feb 2022 Seminar with strong attendance.

9. Standards and Regulations

AS: Usually GB and AS will report the updates by this year. But the MHE/4 meeting this year was held 3 Feb 2022. Particular focus on updates to Fire fighters/ evacuation BS9999, BS9991 and EN 81-76.

Notes have been appended.

GB: Nick Millar (LEIA) and GB reviewing the BS7255.

10. Any other business

Nick Mellor highlighted:

- a. "Lift Apprenticeship End Point Assessment Organisation" is approved by Ofqual as of 30 Dec 2021, which a huge accomplishment. Will be offering first assessment in Spring 2022.
- b. LEIA wants to put strategy to the board. To do more for training but is constrained by the lack of people with the skill sets and expertise. If anyone wants to get involve with training. Please get in touch. GB: LEIA members should refer to the CLG material. NM: want to resource the initiative so as to explore in more depth.

11. Next meeting

The next Lifts Group AGM and Evening Meeting will be on 7 February 2023 (confirmed details + information of the seminars mentioned above, will be available via CLG events page. <https://www.cibse.org/lifts-group/events>)

12. Close

AS: Thank you for the support and being members of the CLG. If anyone is interested and are not members, please encourage them to. It is free to join. The purpose is to share any useful information upskill and to share knowledge.

END

3. Matters Arising



4. Report for 2022



2 February 2022

AGM and Seminar 1 - London
Fire Fighters and Evacuation Lifts



The importance of firefighters and evacuation lifts within the broader Fire Strategy for a building

Farrokh Azad

Associate Director
Operations Manager Fire, SWECO



Update on Firefighters and Evacuation Lifts

Nick Mellor

MD of LEIA



The London Plan 2021 and its implications for lift system design

Adam Scott

CLG Chair and Technical Director -
Vertical Transportation, SWECO

7 June 2022

Seminar 2 - Manchester



Why did I sign up to get a CEng?

Philip Pearson

Pearson Consult



Capacity calculation for evacuation lifts (the London Plan)

Dr. Gina Barney

Gina Barney Associates



Why should Manchester bother with the London Plan?

Adam Scott

CLG Chair and Technical Director -
Vertical Transportation, SWECO



The Practical Problems in Providing Evacuation Lifts

Nick Mellor

MD of LEIA

29 November 2022

Annual Seminar - London



The technical challenges involved in lifting 40 tonne trucks using rigid chain technology in a confined space

Philip Pearson

Pearson Consult



Energy efficient buildings assessing the impact of lifts

Adam Scott

CLG Chair and Technical Director -
Vertical Transportation, SWECO



Rated load and maximum available car area: a proposal to revise EN81-20, table 6

Dr. Gina Barney

Gina Barney Associates



Exploring IoT applications for vertical transportation (VT) to tackle challenges in a modern world

Paul Clements

Associate, D2E



Global dispatcher interface - initial prototype design

Jonathan Beebe

Jonathan Beebe Ltd.

21-22 September 2022

2022 - 13th Symposium on Lift and Escalator
Technologies, Northampton



LIFT & ESCALATOR
SYMPOSIUM

**13TH SYMPOSIUM ON
LIFT & ESCALATOR
TECHNOLOGIES**

Volume 13

September 2022

ISSN 2053-7235 (Print)

ISSN 2052-7233 (Online)

www.liftsymposium.org



5. Election of Officers



Nominations for 2023 are:

Chair - **Michael Bottomley**

Vice Chair - **Phil Pearson**

Secretary - **Wee Chuan Lim**

Treasurer - **Richard Peters**

Events Organiser (North) - **Phil Pearson**

Events Organiser (South) & Technical Editor CIBSE Guide D - **Dr Gina Barney**

BSi Representative - **Adam Scott**

Event Exhibition - **John Bashford**

Training Development - **David Cooper**

Press and Publicity - **Paul Clements**

LEIA Representative - **Nick Mellor**

University of Northampton Representative - **Stefan Kaczmarczyk**

SAFED Representative - **Vince Sharpe**

International Representative USA - **Rory Smith**

International Representative AU - **John Carroll**

6. Events in 2023



16 February 2023

AGM and Seminar 1 - London

6 June 2023*

Seminar 2 - Manchester

20-21 September 2023

14th Lift and Escalator Symposium,
Hilton Hotel, Northampton

29 November 2023*

Annual Seminar - London



Digital Switch

Matt Davis
AVIRE



**Replacement of Landlines with
Mobile (GSM) Gateways for Lift
Emergency Communication**

Jason Goodwin
Regional Sale Manager, 2N

In-Person Event.

**Full Details and instructions to
register will be posted on the
CLG Website under EVENTS.**

www.cibseliftsgroup.org



*Tentative date. Updates will be posted on CLG Website

7. Education Training and CPD





+





Paul Clements
Associate, D2E

- Regular Postings and LinkedIn Updates
- Please use the contact form on the CLG website to send suggestions

liftsgroup@cibse.org

8. Treasurer's Report for 2022

Richard Peters



CIBSE Lifts Group Accounts 2022

	Expenditure	Income	
Balance brought forward as at 1 February 2022			£4,397.52
Eventbrite			
Registration fees from Annual Seminar 2 February 2022		£2,313.38	£6,710.90
HSBC - 25 February 2022			
Monthly account fee	£5.00		£6,705.90
HSBC - 25 March 2022			
Monthly account fee	£5.00		£6,700.90
Greater Manchester Chamber of Commerce - 20 April 2022			
Room Hire for Meeting 7 June 2022	£528.00		£6,172.90
HSBC - 25 April 2022			
Monthly account fee	£5.00		£6,167.90
HSBC - 25 May 2022			
Monthly account fee	£5.40		£6,162.50
HSBC - 25 June 2022			
Monthly account fee	£5.00		£6,157.50
HSBC - 25 July 2022			
Monthly account fee	£5.00		£6,152.50
HSBC - 25 August 2022			
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HSBC - 25 October 2022			
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Eventbrite			
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Balance as at 31 st January 2023			£7,350.68

Richard Peters
Treasurer.

9. Standards and Regulations

Adam Scott and Dr. Gina Barney



Evacuation Lifts

EN 81-76 has passed through public comment. Agreement on technical comment should be reached middle of this year, with publication early to mid 2024.

BS 9991 remains in draft and is linked to Part 76. Likely publication late 2023.

Accessibility

Updated **BS EN81-70 + A2** has now been published – harmonization (designation) scheduled Q2 2023.

Safe Working

BS 7255 about to come out for public comment with publication scheduled for end of this year.

Alarms

BS EN81-28 revision well advanced and likely to come out for public comment middle of this year.

Modernization

BS 5655-11/-12 work item started for revision – currently 2005!

10. Any Other Business

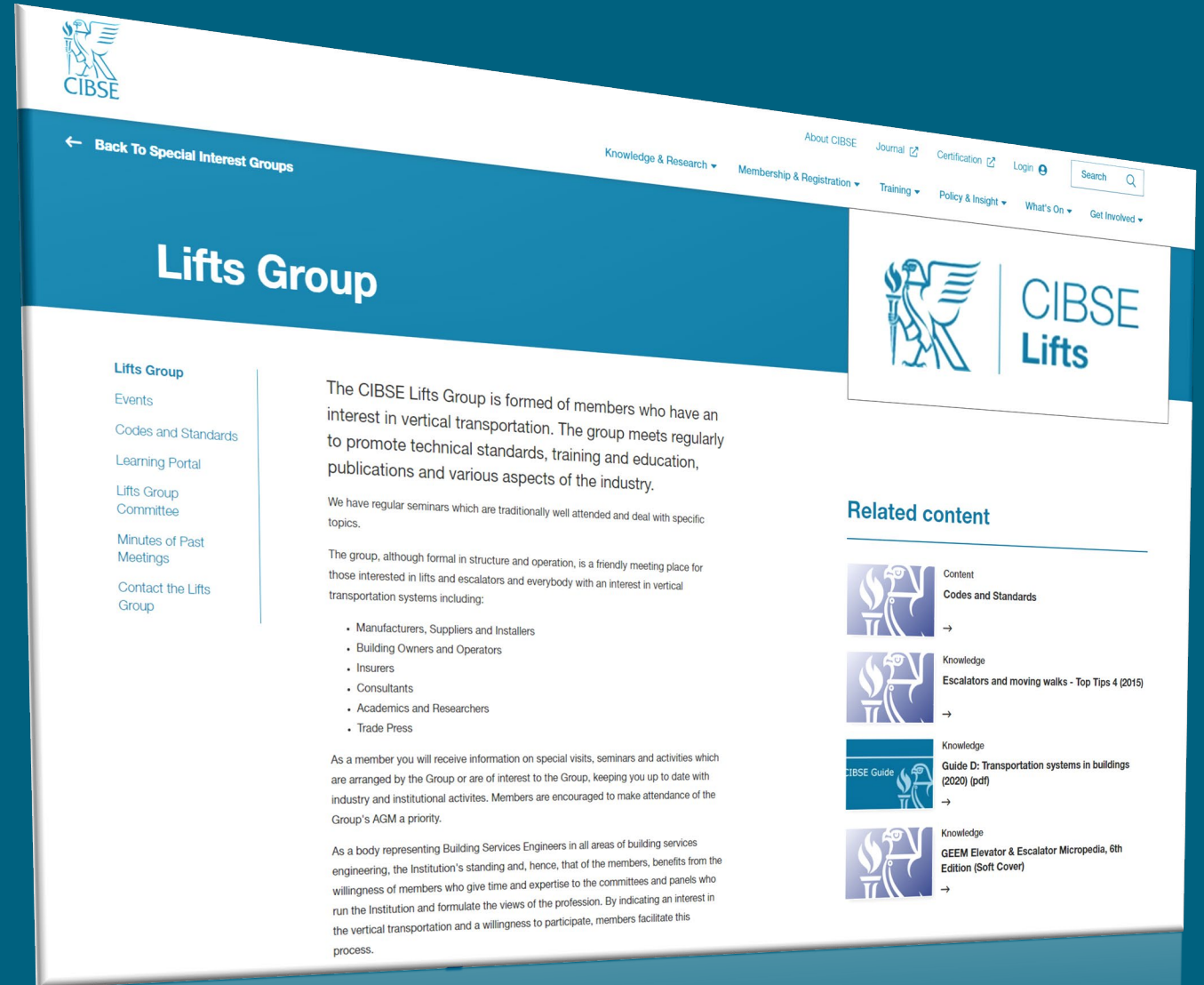


11. Date of next AGM

Tentatively 21 February 2024



Updates on CLG Website



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CIBSE Lifts Group
LinkedIn Group





EVENING MEETING

16 February 2023

CHAIR - Dr Gina Barney

Agenda

1. Digital Switch

– Matt Davies, AVIRE

2. Replacement of Landlines with Mobile (GSM) Gateways for Lift Emergency Communication

– Jason Godwin, 2N Regional Sales Manager

3. Q & A

4. Close



Déjà vu?

DD 265:2008

DRAFT FOR DEVELOPMENT

Protocol for communications between a lift alarm system and an alarm receiving station (rescue centre) – Specification

ICS 13.320; 91.140.90

This publication is not to be regarded as a British Standard.

It is being issued in the Draft for Development series of publications and is of a provisional nature because of future changes in telephone technology. It should be applied on this provisional basis, so that information and experience of its practical application can be obtained.

A review of this Draft for Development will be carried out not later than 2 years after its publication.

Notification of the start of the review period, with a request for the submission of comments from users of this Draft for Development, will be made in an announcement in the appropriate issue of Update Standards.

According to the replies received, the responsible BSI Committee will judge whether the Draft for Development can be converted into a British Standard or what other action should be taken.

Observations which it is felt should receive attention before the official call for comments will be welcomed.

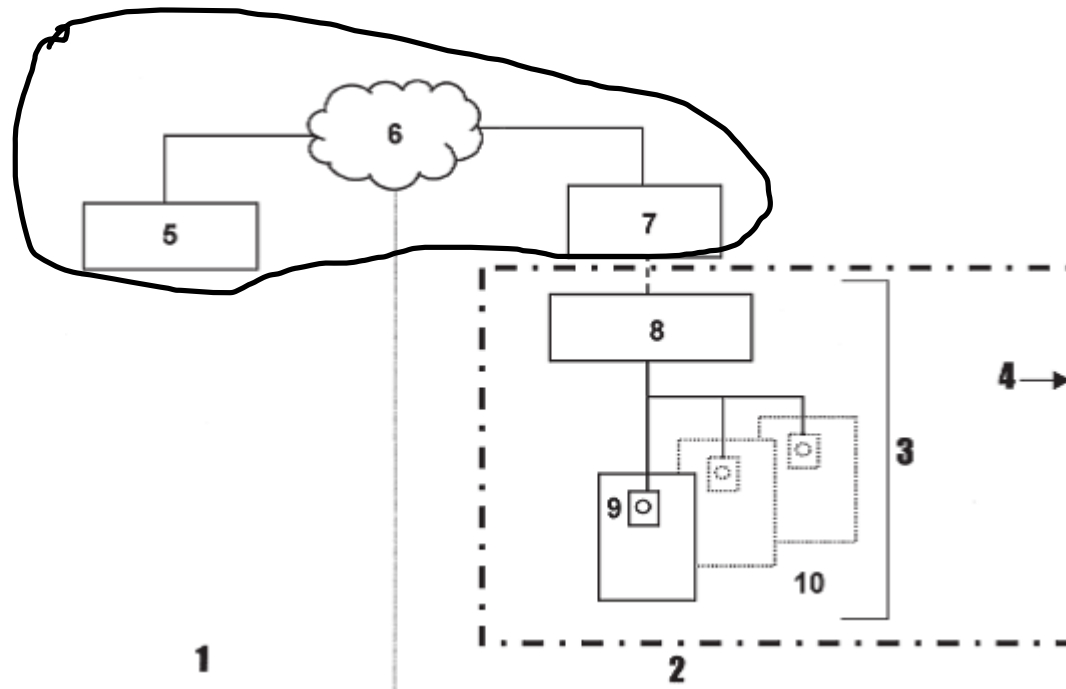
These should be sent to the Secretary of BSI Technical Committee MHE/4 at British Standards House, 389 Chiswick High Road, London W4 4AL.

BSi
British Standards

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Committee member copy: Do not reproduce

EN81:28 Boundary - schematic



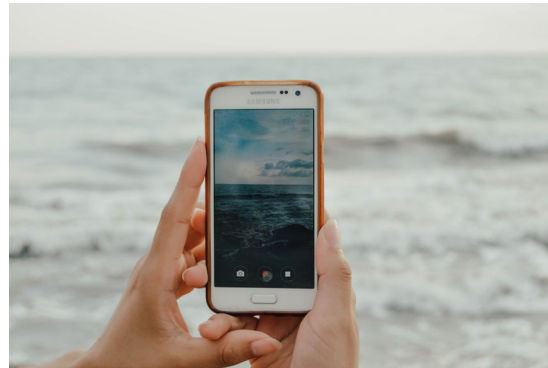
Key

1. rescue service
2. site
3. alarm system
4. **boundary of this standard**
5. reception equipment
6. communication network
7. transmitter
8. alarm equipment
9. alarm initiation device
10. lifts

We are interested how the alarm gets to/from the rescue centre



"How do you send text messages?"



Mobile

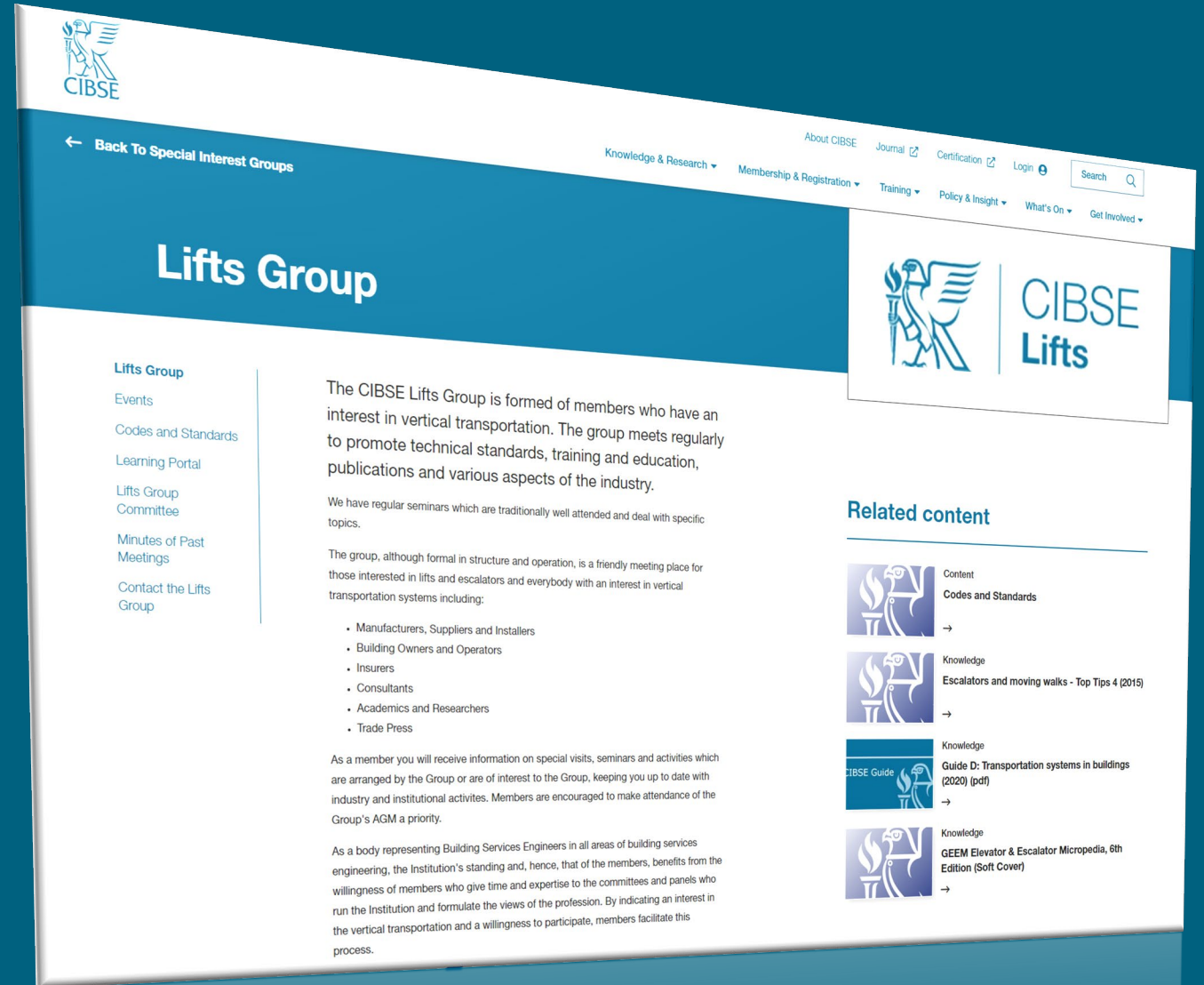


Telegraph



Fibre

Updates on CLG Website



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Richard Peters
Treasurer.

The Impact of the Digital Switch on Lift Alarms

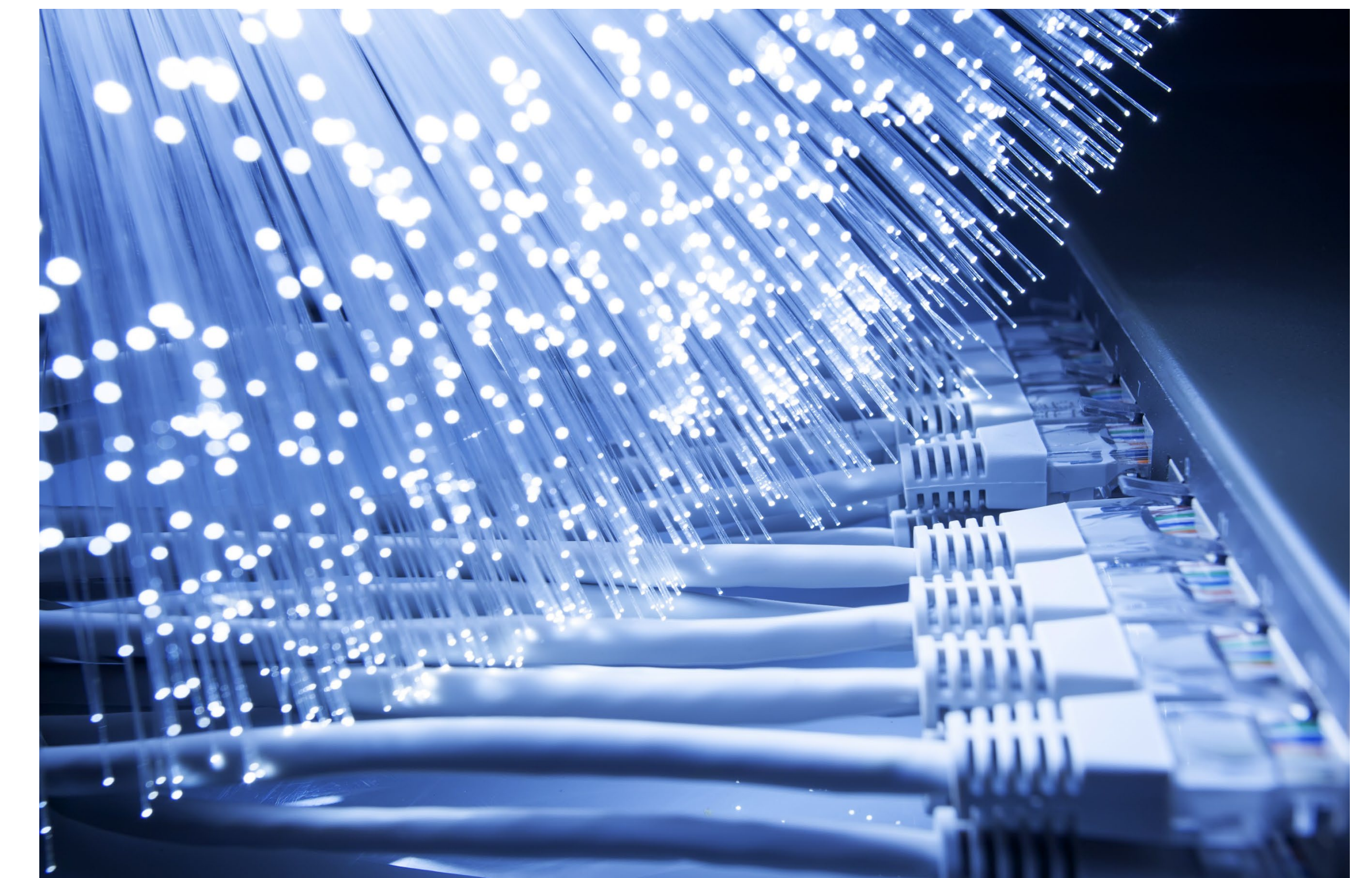
CIBSE Lifts Group 15/02/23



What is the 'digital switch'?

Nationwide mass upgrade of analogue copper telecoms infrastructure, to latest fibre based digital technology

- Also referred to as 'Fibre To The Premises' (FTTP)
- Copper network is no longer fit for purpose so needs to be upgraded to fibre optic due to our ever increasing demand for data
- This also means the end of analogue support on the public switch telephone network (PSTN, aka "Landlines"):
 - 48V power on phones lines removed
 - Reduction in, then removal of, support for analogue signalling (specifically 'dual tone multi-frequency', DTMF, signalling)
- Full fibre will deliver an estimated £59bn boost to UK productivity by 2025
- Previous changes to the PSTN have not affected lift alarms until now...



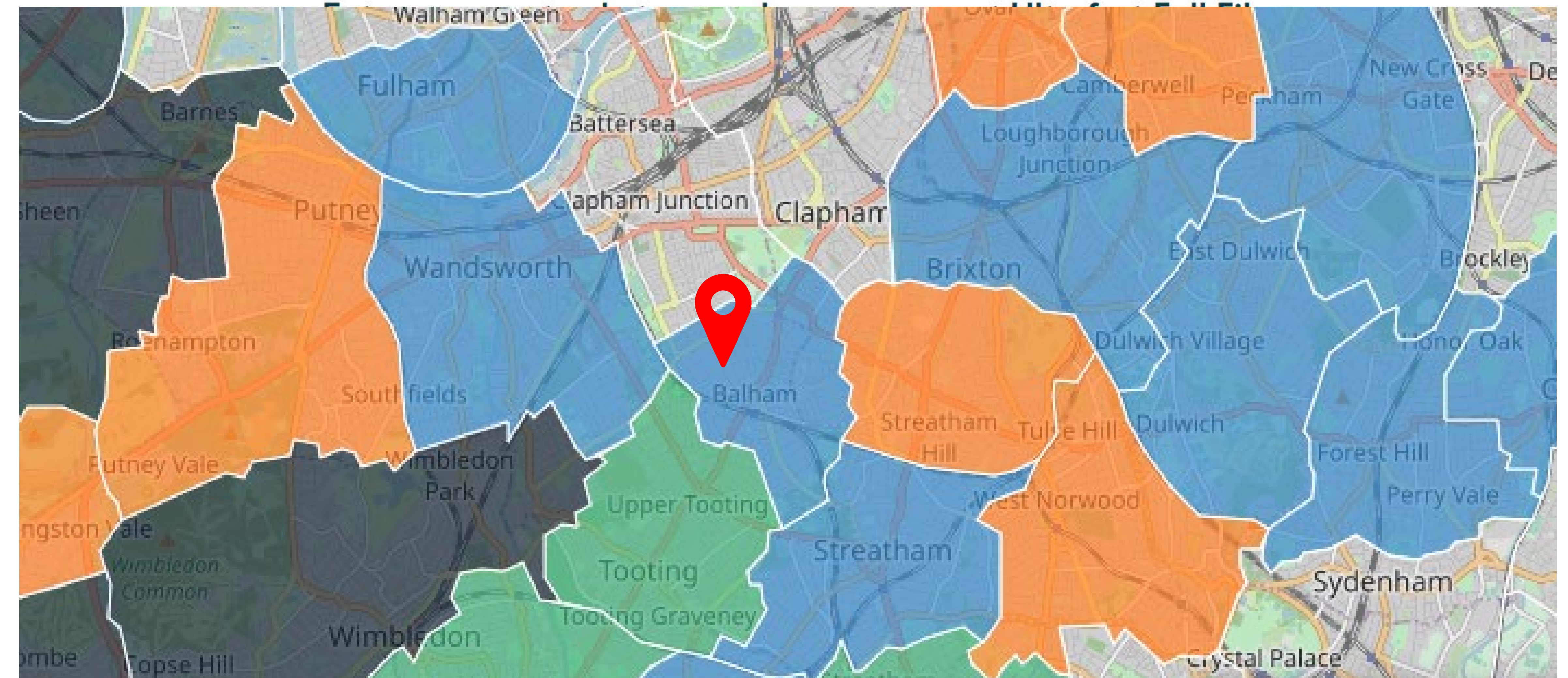
Impact on Lift Alarms

An estimated 257k lift alarms in the UK are still connected to landlines

- Vast majority of the lift alarms installed are analogue devices, so need analogue signalling to operate correctly - DTMF signalling is required for 3-day test calls
- Current analogue support on fibre lines varies between Communication Providers (CPs) today
- Mains power failure leads to fibre telephone lines failing (copper lines carried their own power)
- Analogue support will be completely *withdrawn* across the UK network in Dec 2025
- “Stop Sell” of analogue services in Sept 2023 will further increase the pace of the roll out/impact

7 million premises and counting...

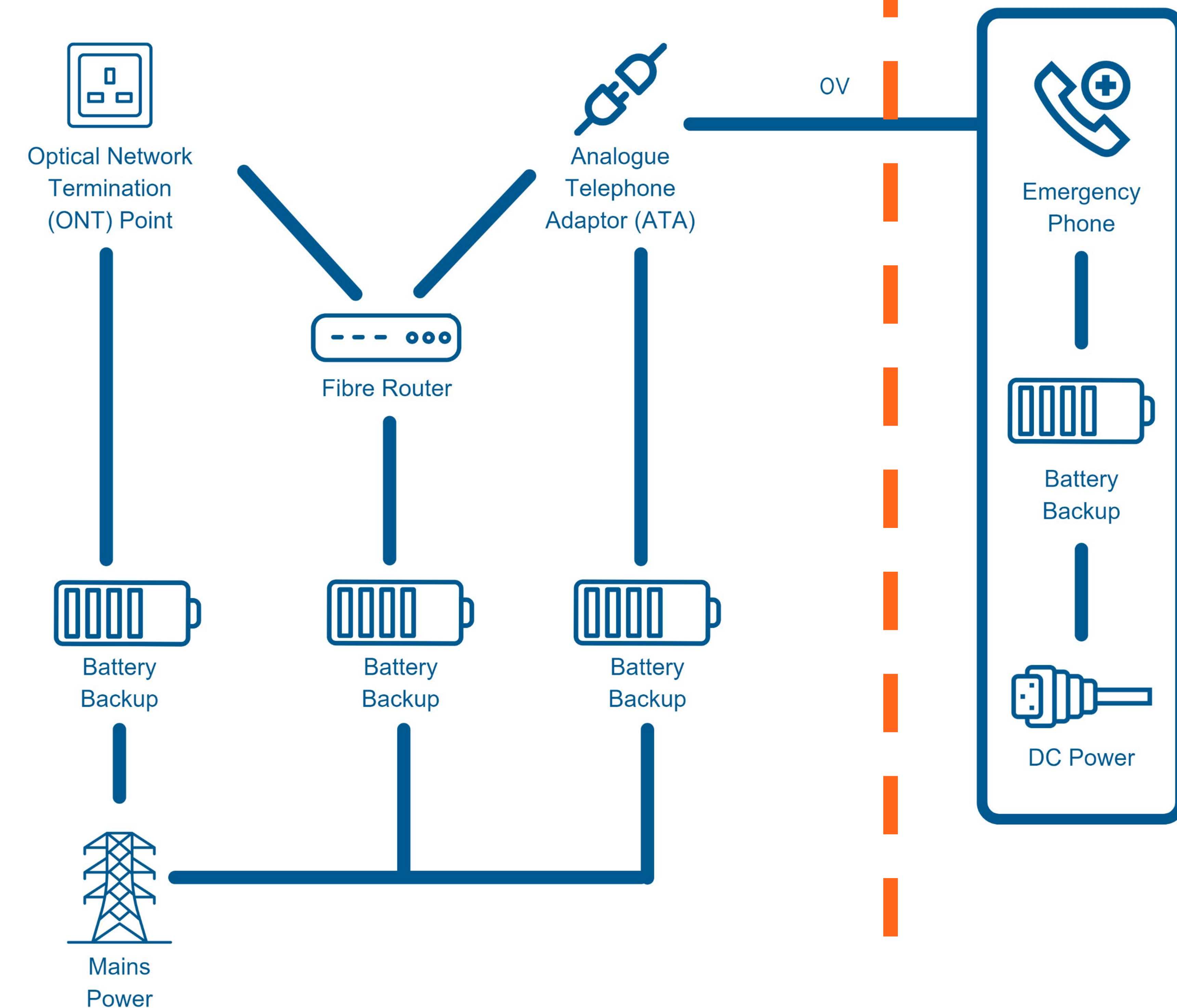
- 2019 - 685k premises served by fibre
- Targeting 3 million premises by end of 2020 – **4.8 million**
- Fibre now serves **7 million premises** in the UK, projected to reach 10 million by the end of the year
- ‘Stop Sell’ program aka “Stealth Copper Migration”
 - When an exchange reaches 75% fibre, no new analogue services can be ordered
 - Definition of “new” is very broad, including:
 - Change of CP
 - Working line take over
 - 658 exchanges are currently under Stop Sell
 - **September 2023** the UK will enter a **National Stop Sell**



Testing current technology

Test Labs and Field Trials

- 'Master socket' ("phone socket") will be replaced with an Optical Network Terminal (ONT) and a fibre router
- Avire have tested our equipment at the Openreach digital services lab which includes the following CPS: BT, TalkTalk, Sky, Vodafone, Zen
 - Avire has also run extended testing at the BT, TalkTalk, Sky and Virgin Media labs
- Field trial was conducted between Avire, Sky, Openreach (sponsor) and Galliard Homes
 - Part of work being done to assuage Galliard's concerns about fibre lines:
 - Lifts
 - Sewage pumps
 - Site offices
 - Case study published by Openreach – 'fibre worked adequately', however...

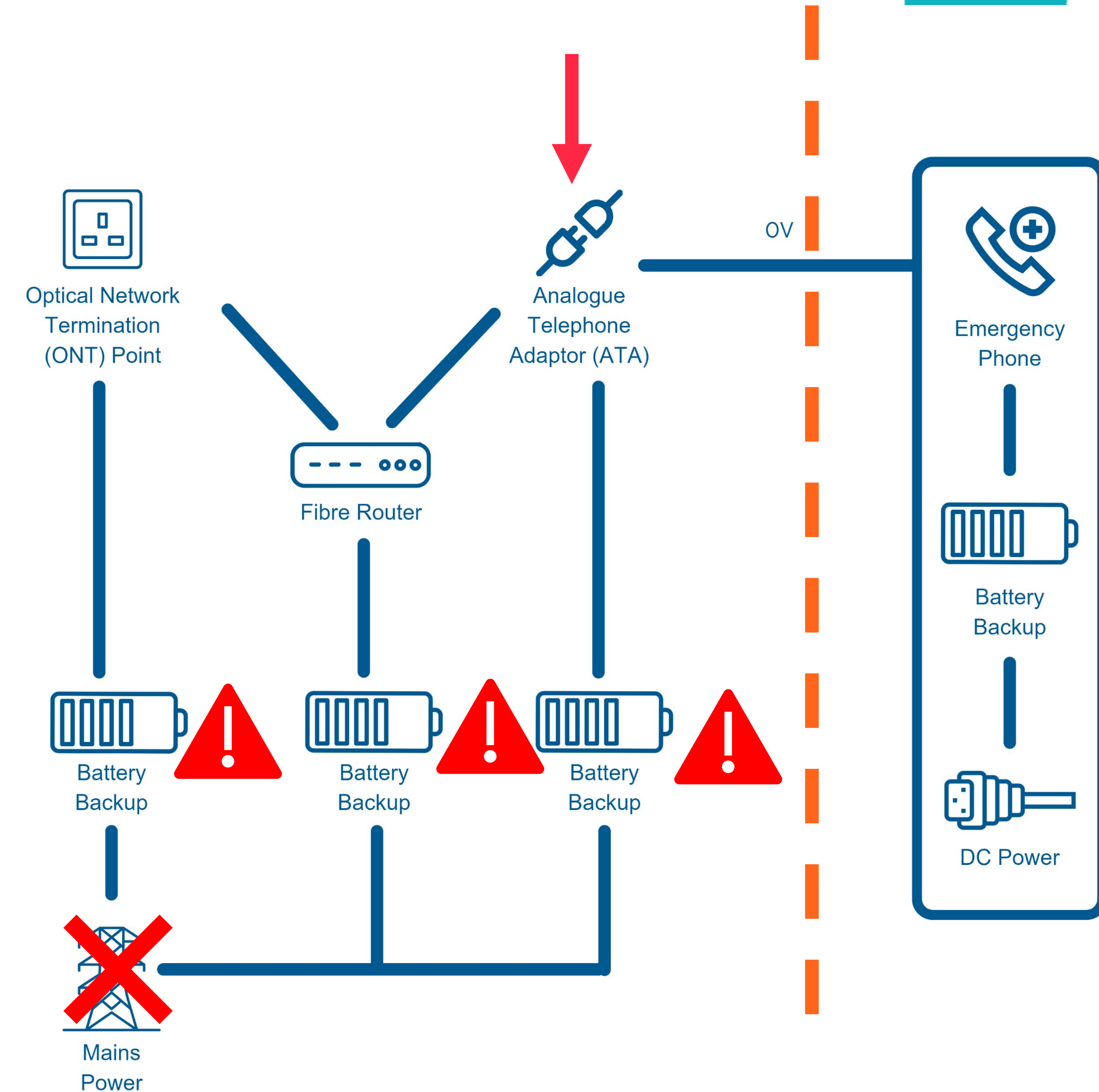


Testing

Battery Backups and ATAs

- Some CPs are using analogue telephone adaptors (ATAs) to allow existing analogue devices to connect to fibre lines
 - Performance varies between CPs
 - **Disruption of alarm calls** has been seen which is a concern
- Provision of battery backups is still unclear
 - Battery backups will **not** be provided as standard on fibre lines*
 - Lack of remote monitoring for battery backups means that on site visual inspection will be required; **risk of battery backup failing and the fault not being detected**

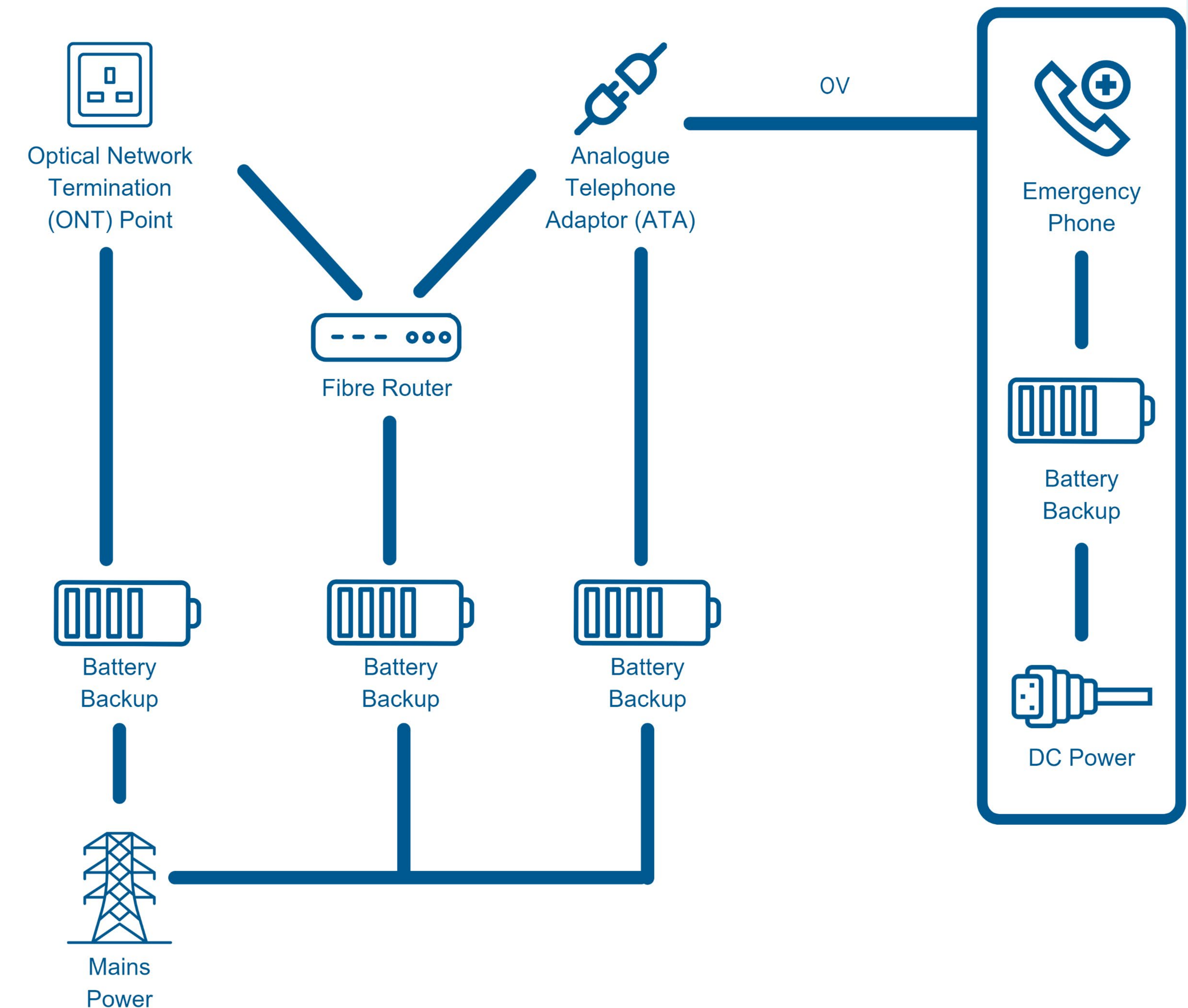
*Ofcom only require battery backups to be provided for 'vulnerable customers' and, even then, only to place 999 calls – not suitable for lift alarms



Solutions

Fixed Line versus Gateways

- Provision of a fixed line sits with the lift owner
- Australia and Switzerland lift industries moved 100% to gateways after their digital switches – too many concerns about the resilience of fibre lines in the event of power outages
- Alternative to a fixed line is a 4G gateway which can be provisioned & maintained by the lift maintenance provider:
 - In-built battery* *with remote monitoring*
 - Roaming (non-steered) SIM cards to maximise signal availability and strength



Mobile Network Sunsets

End of 2G/3G by 2025!

- Previous projections that 2G/3G would last until 2030-2033 have proven not to be valid
- UK sunset for 2G is now Dec 2025 for EE and Vodafone, with O2 expected to announce this year*
- In the mean time previous levels of support for analogue signalling (DTMF) are sharply declining
- **Don't get caught out fitting a cheap 2G gateway today only to replace it in 2025**
- **Many 4G gateways currently run their voice channel through the 2G/3G bands – these gateways will have to move to Voice Over LTE (VoLTE) to continue operating after 2025**
 - Impacts choice of SIM card as well as gateway
- Loss of DTMF support will be critical – to keep lift alarms in service opt for a 4G gateways which can convert DTMF to data

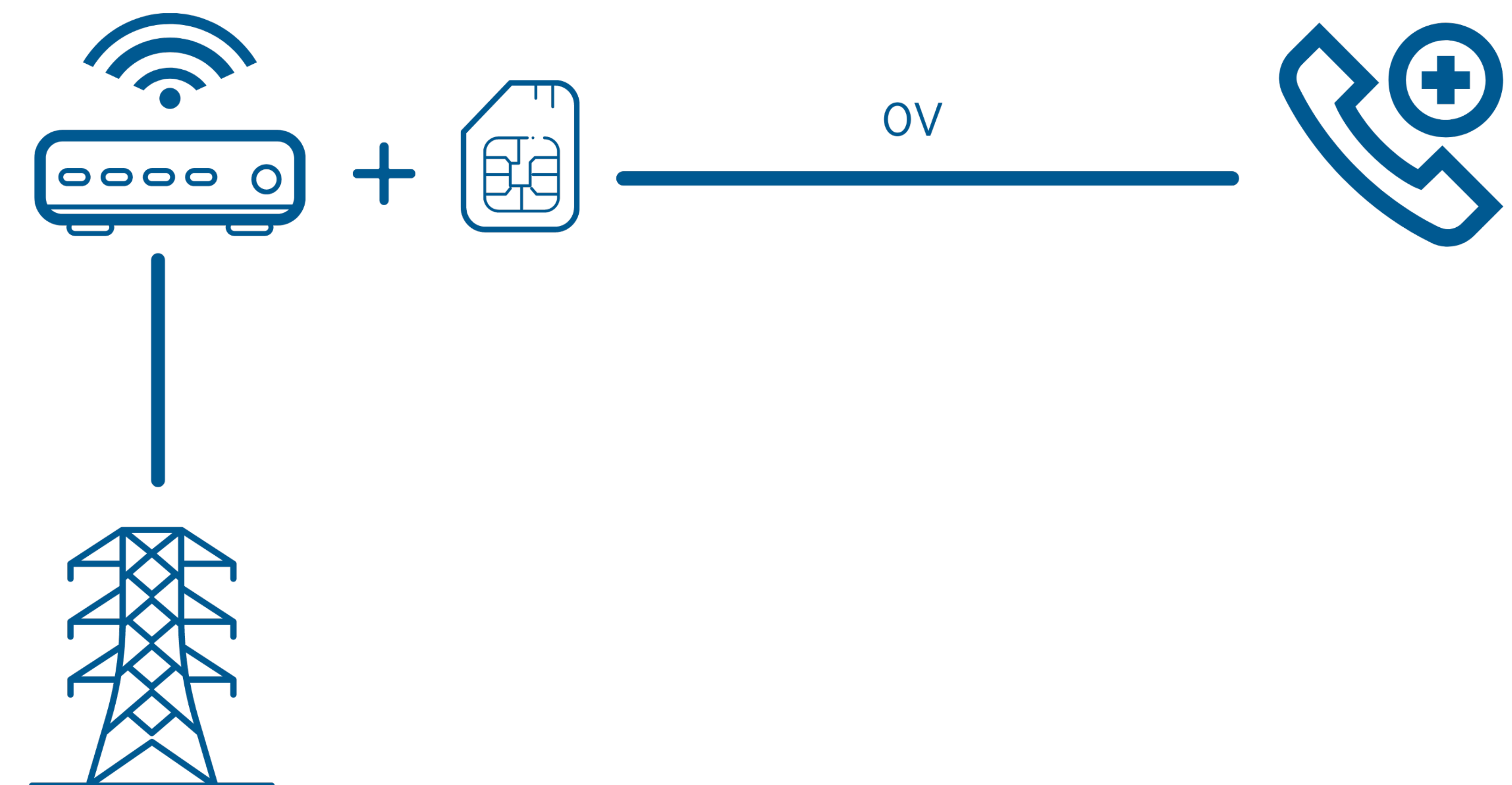
Territory	Operator	2G closure date	3G closure date
UK	EE	31/12/2025	31/12/2022
UK	Hutchison-Three	n/a	31/12/2024
UK	O2	TBC	TBC
UK	Vodafone	31/12/2025	31/12/2023



Solutions

Fixed Line versus Gateways

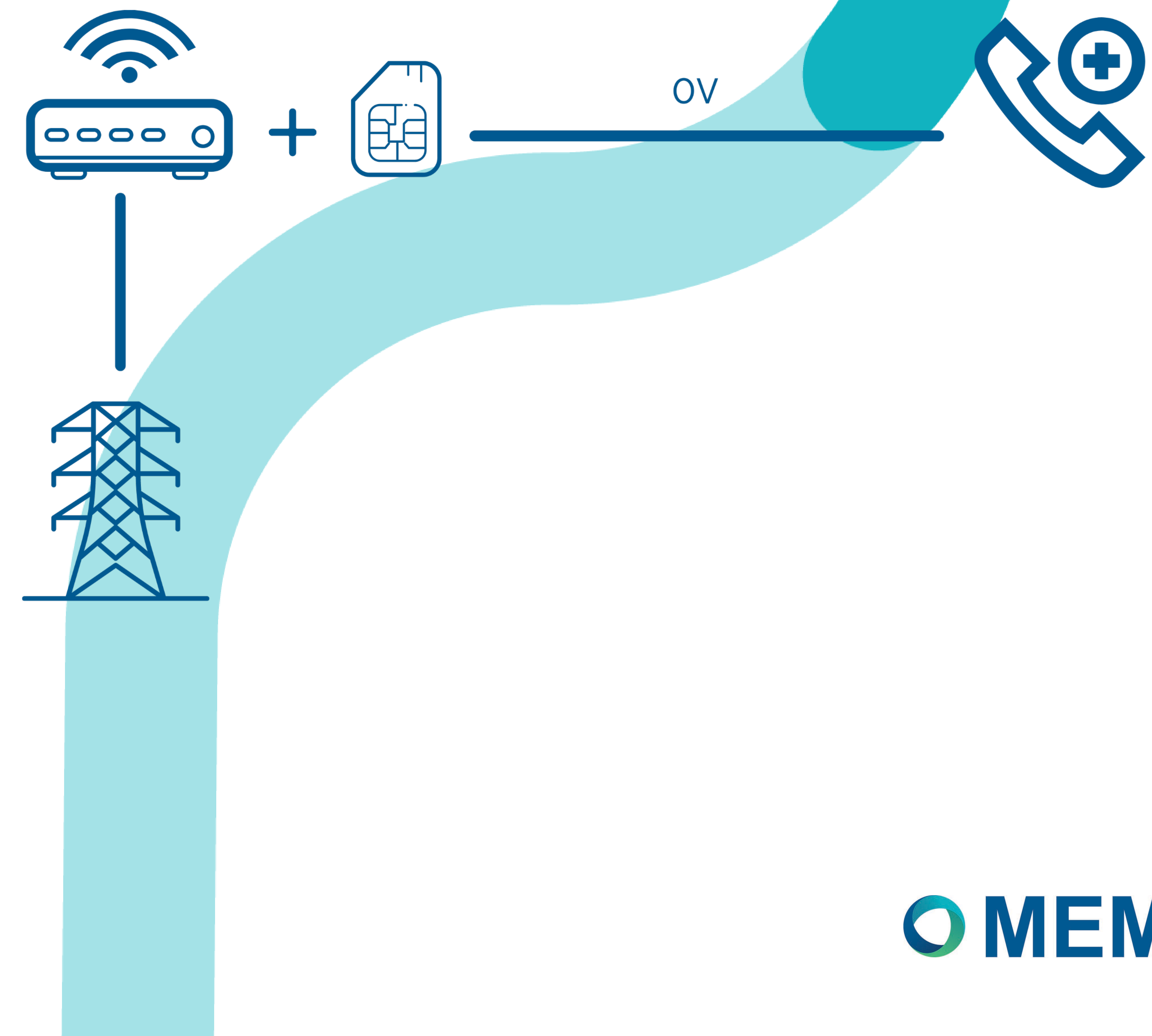
- Key Concerns:
 1. **Mobile switch off in the event of a disaster?** – Reports after ‘July 7th’ and ‘Manchester Arena’ attacks noted that switching off the mobile network hampered the rescue efforts
 2. **Mobile network congestion** – Possible, but the mobile network operators are constantly investing in bandwidth and coverage
 3. **“Can’t get signal”** – Use of roaming SIMs, high gain antennas, signal boosters and “don’t install the gateway top of car!” massively mitigate signal issues compared to even a few years ago
- These risks can be mitigated by moving to a managed connection service:
 - Provisioning of communication equipment
 - Signal monitoring, remote diagnostics and fault alerts
 - Battery monitoring and lifecycle replacements



Call to Action

Understand, Review, and Respond

- Lift owners need to understand the following:
 - Alarm equipment currently installed
 - Compatibility with a fibre line?
 - Fibre roll out status (especially STOP SELL) in their area
- Upgrade to a resilient solution:
 - Avoid 2G/3G gateways
 - Avoid unmonitored batteries
 - Gateways with DTMF to data conversion capabilities to keep existing lift alarms in service
- Lift owners need a long term plan for their connectivity:
 - Network sunsets will continue – we will not get 30 years on 4G
- Consider a managed connection service to ensure lifetime of 'communication means' matches lifetime of lift



THANK YOU

Matt Davies

Head of Strategic Marketing – Europe

Mobile: 07808641833

Email: matt.davies@avire-global.com

 **MEMCO**
by AVIRE

Emergency Lift Communication DTMF and Mobile (GSM) Gateways

Jason Godwin, 2N Regional Sales Manager
Thursday 16 February 2023

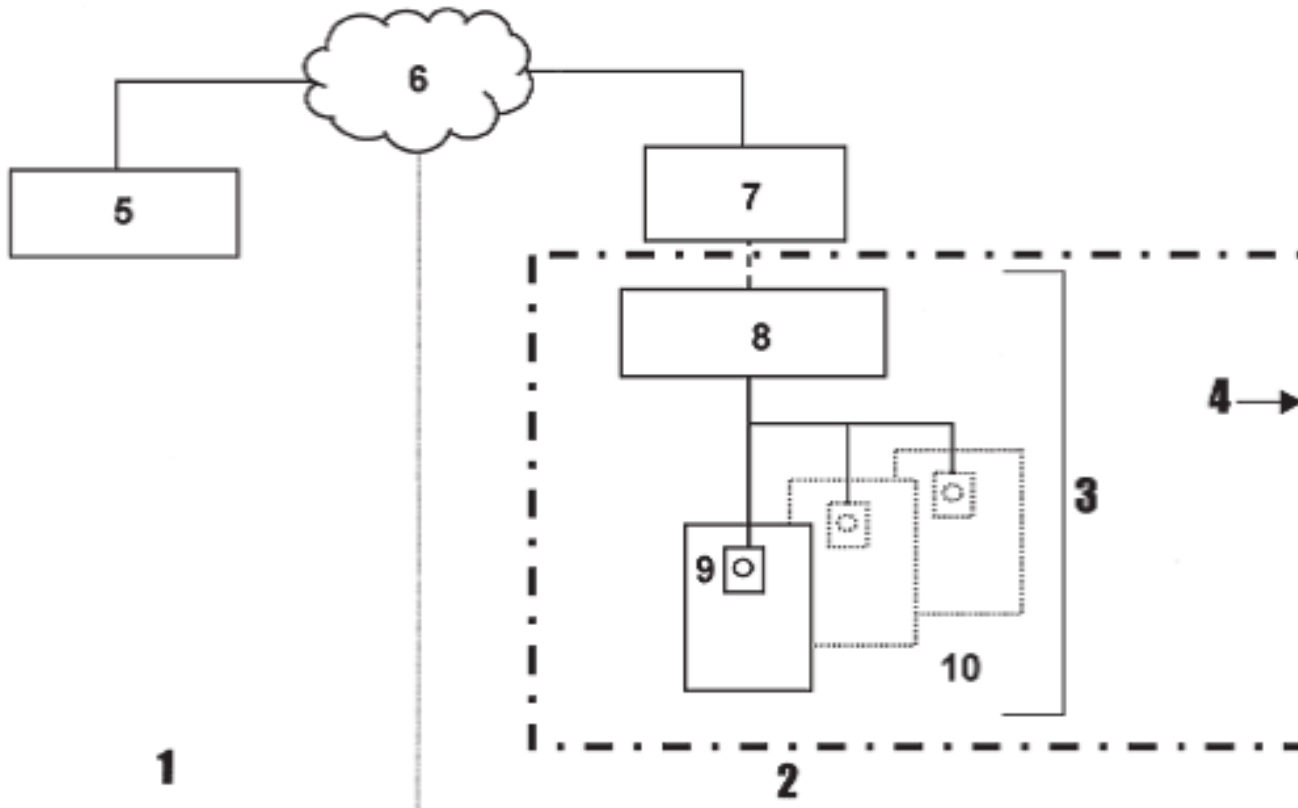
Content

Preamble

1. Introduction
2. Industry feedback
3. Landline obsolescence
4. Key issues
5. DTMF – Proprietary solution
6. DTMF – Open solution
7. What is SIP
8. Recommendation
9. Final thought - Lifts without DTMF



Preamble - EN81:28 2019 - What it covers



1. Introduction

- Mobile (GSM) gateways provide an easy, cost-effective alternative to obsolete phone landlines and are being widely adopted in the lift industry
- The suitability and performance of GSM gateways in respect of DTMF is not great
- DTMF has been integrated into lift communications for the identification of lifts during a call, communication-related alerts, as well as automating 3-day test calls and remote phone autodialler configuration
- EN 81:28 Clause 4.2.1 (Availability / reliability) requires that test calls are **“Using the same connection means used for an alarm”**
- Industry feedback suggests a significant amount of DTMF signals and calls are lost or distorted and this is a cause for concern and maybe a call to action



2. Industry feedback

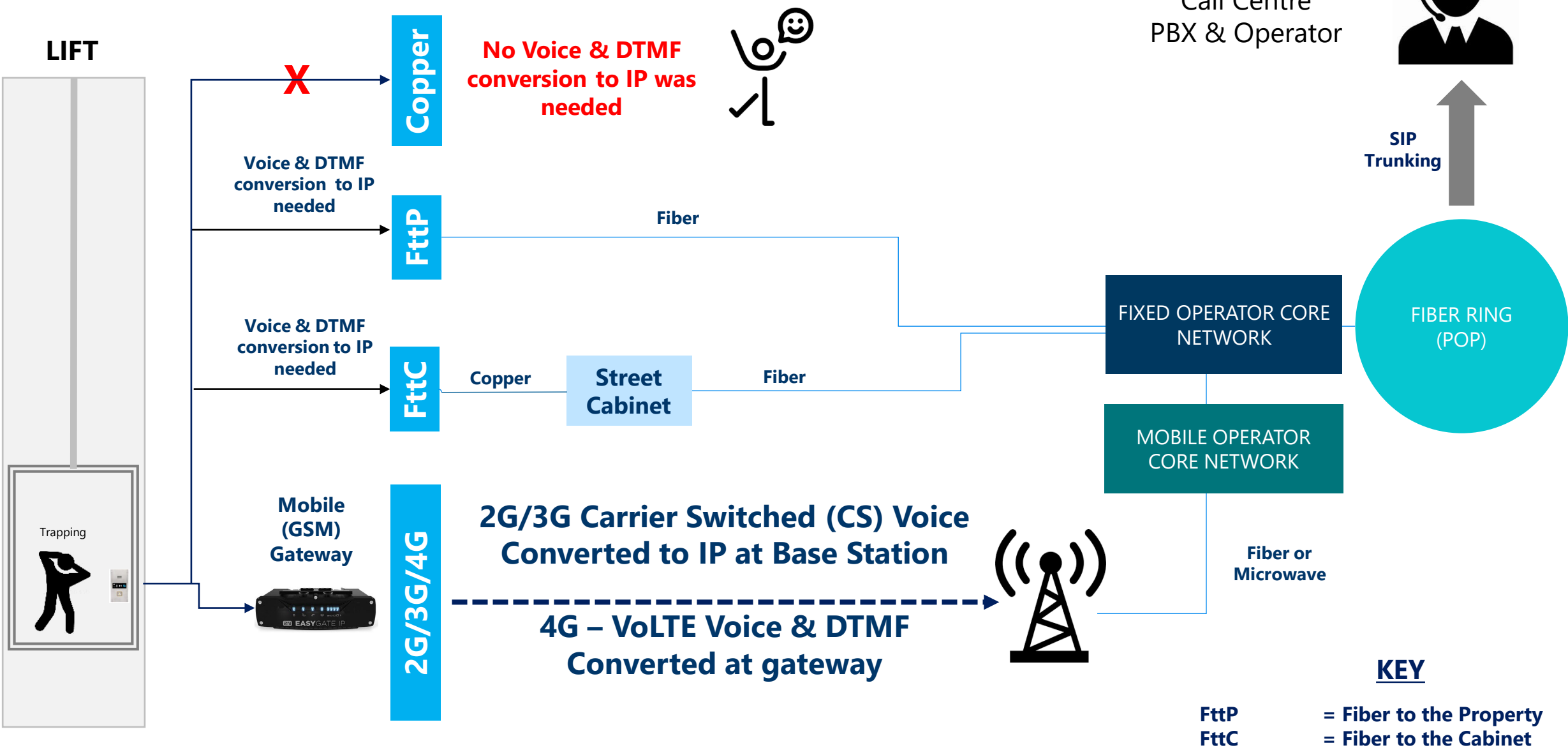
“When receiving DTMF from a mobile solution we see characters being dropped and/or corrupted.”

Darren Fahy, Technical Architect
Thames Valley Controls, UK

“Up to 20% of emergency and technical calls are impacted by distortion from the DTMF transmission protocols used by lift alarm manufacturers.”

Thibault Beaucornu, Sales Director
Sérénité 24h24, France

3. Landline obsolescence





4. Key Issues

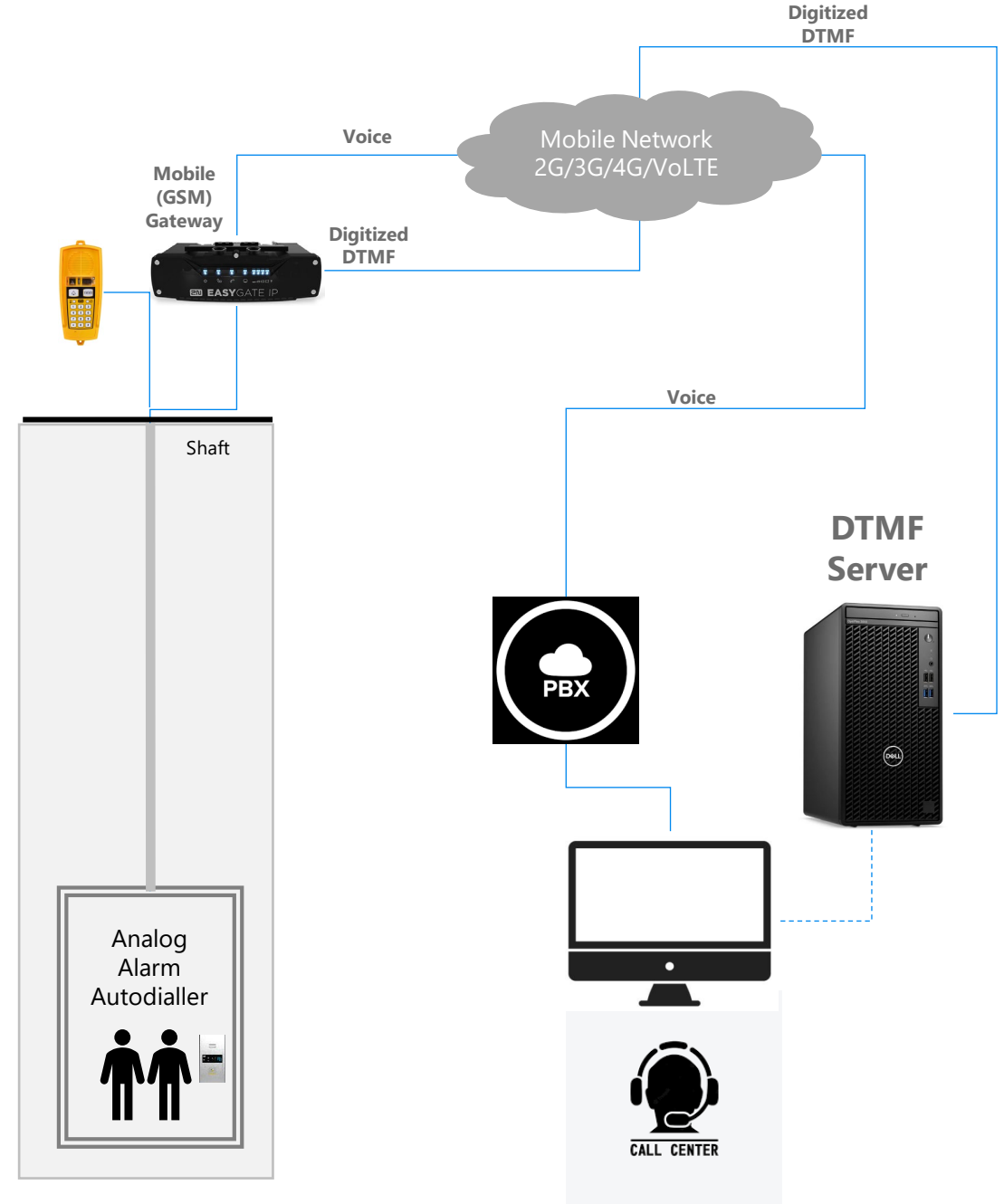
- 2G will be switched off (operators saying end of 2025) so no more CS voice from gateway
- VoLTE (a form of VoIP) will then remain only option unless data calling is utilised
- Often calls (inc. DTMF) pass through multiple operators, creating and compounding problems
- Test calls using DTMF are **NOT** using same channel **(means)** as voice, if going via a data
- VoLTE, although VoIP, requires a **voice plan** from a mobile operator
- Data requires a **data plan** from a mobile operator

5. DTMF: Proprietary solution

DTMF can be digitalised by the gateway and sent **separate to a voice call** (CS or VoLTE) then a server decodes and logs the DTMF call. However the use of different connections requires **separate configuration parameters** on the gateway plus there's inherent difficulty to combine it back to the voice call for the call centre needs (e.g. Lift ID).

EN81:28 Conformity:

Connection means for emergency alarm voice calls	Voice Call
Connection means for DTMF strings and separate DTMF test calls	Data
Same connection means for test calls as used for an alarm (EN 81 28:2018 Clause 4.2.1)	No



6. DTMF: Open solution

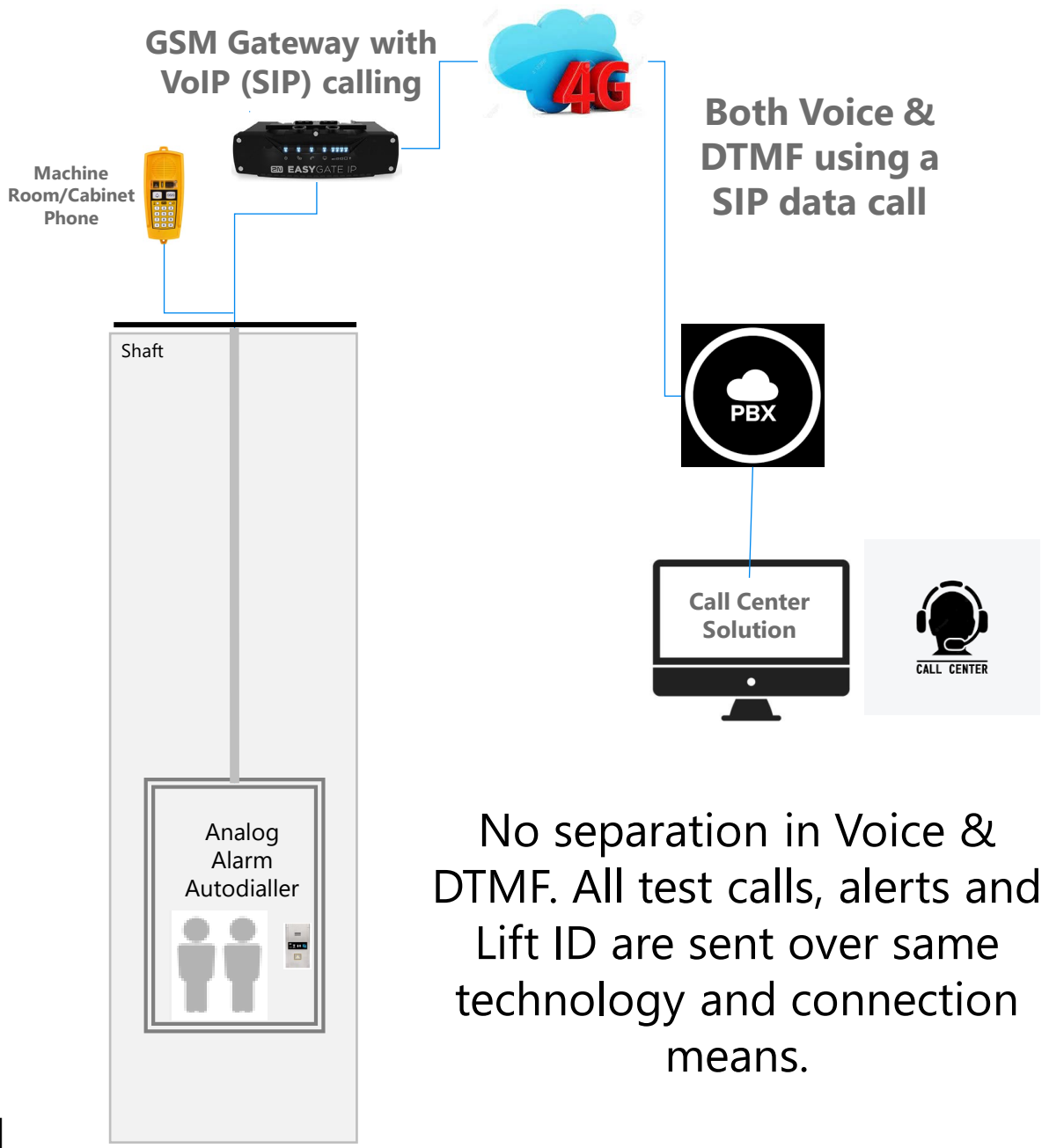
Digitalizing DTMF is the best option, but the voice call **must also be digitalized** at the same endpoint (gateway) to comply with the standard. The solution is to send voice and DTMF over data-calling using an open, secure, end-to-end **protocol known as SIP**. That will allow DTMF to be utilized for many years to come.

Conformity:

Connection means for emergency alarm voice calls	Data
Connection means for DTMF strings and separate DTMF test calls	Data
Same connection means for test calls as used for an alarm (EN 81 28:2018 Clause 4.2.1)	Yes

Benefits:

Clear voice, excellent DTMF and only a data SIM needed





7. What is SIP

- Session Initiation Protocol (SIP) is a very robust signaling protocol that supports unified communications, voice calls (including DTMF), video conferencing, instant messaging, and media distribution.
- SIP is proven, trusted and used by us all every day.
- Think of it as a quality-assured, communication VPN between two points.

8. Recommendation

To avoid confusion and an untidy changeover in 2025 with the possible health and safety consequences that might arise - could the CIBSE Lifts Group make a request to the BSI Lift Committee to produce a British Standards Development Draft (DD) in a similar style and process to the creation of DD265:2008 to provide guidance and recommendations?

This would not affect the integrity of BS EN81-28 which deals solely with the requirement for remote alarms for lifts and not the means to communicate between the end points of lift and rescue centre.

Such a DD would receive the scrutiny of the whole lift community through BSI's procedure for public comment.



9. Final thought - Lifts without DTMF



Adoption of the recommendation would open the door to removing the use of DTMF entirely in years to come because as SIP gains traction and acceptance, the P100/CPC DTMF signaling protocol used by DTMF today, could be replicated with simpler SIP INFO header messaging as the medium.

Such a move would provide a reliable, open technological platform (SIP) that is guaranteed to facilitate 100% accurate transmission of relevant lift information and 3-day test calls for decades to come thereby taking full advantage of SIP and removing DTMF considerations forever.



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Thank you!