SYSTIMAX®
COMMSCOPE

Extended distance solutions
Introducing GigaREACH™ XL

YOUR NETWORK
YOUR FUTURE

Extended reach solutions

Why the need for extended reach

Current options to go beyond 100 meters

GigaREACH XL

Powered fiber

Constellation™

AGENDA

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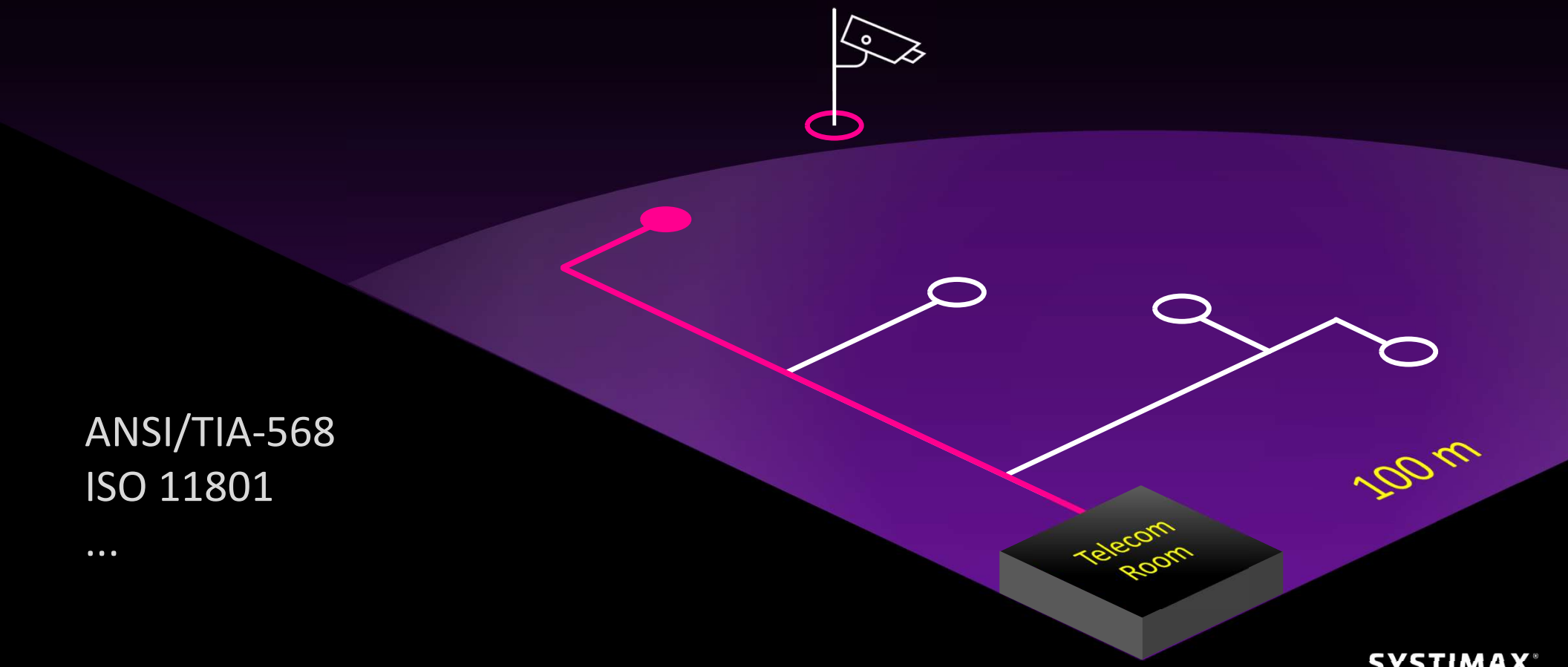
Why the need for extended reach



ANSI/TIA-568
ISO 11801
…

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Extended reach solutions

Why the need for extended reach

Current options to go beyond 100 meters

GigaREACH XL

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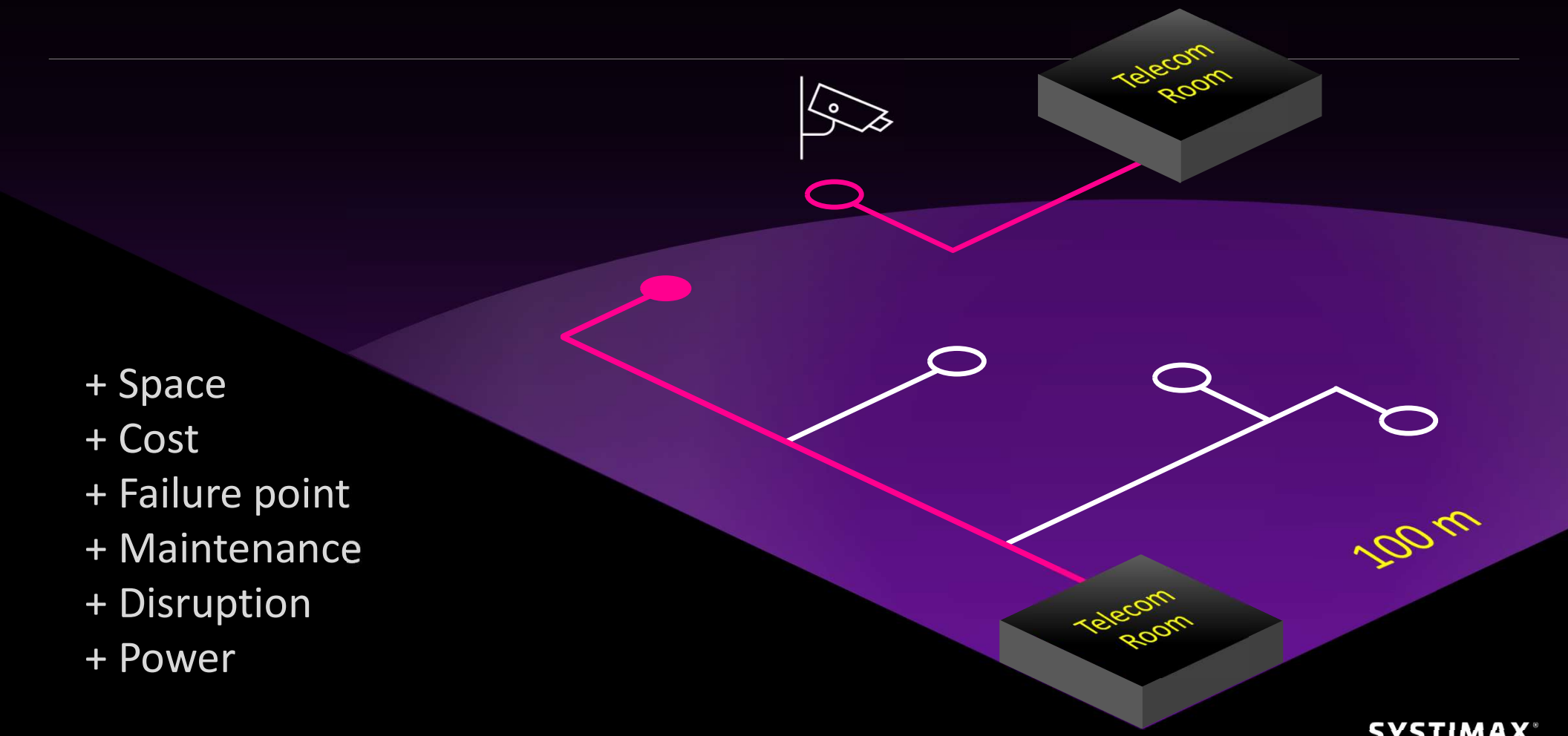
Add another telecom room



+ Space
+ Cost
+ Failure point
+ Maintenance
+ Disruption
+ Power

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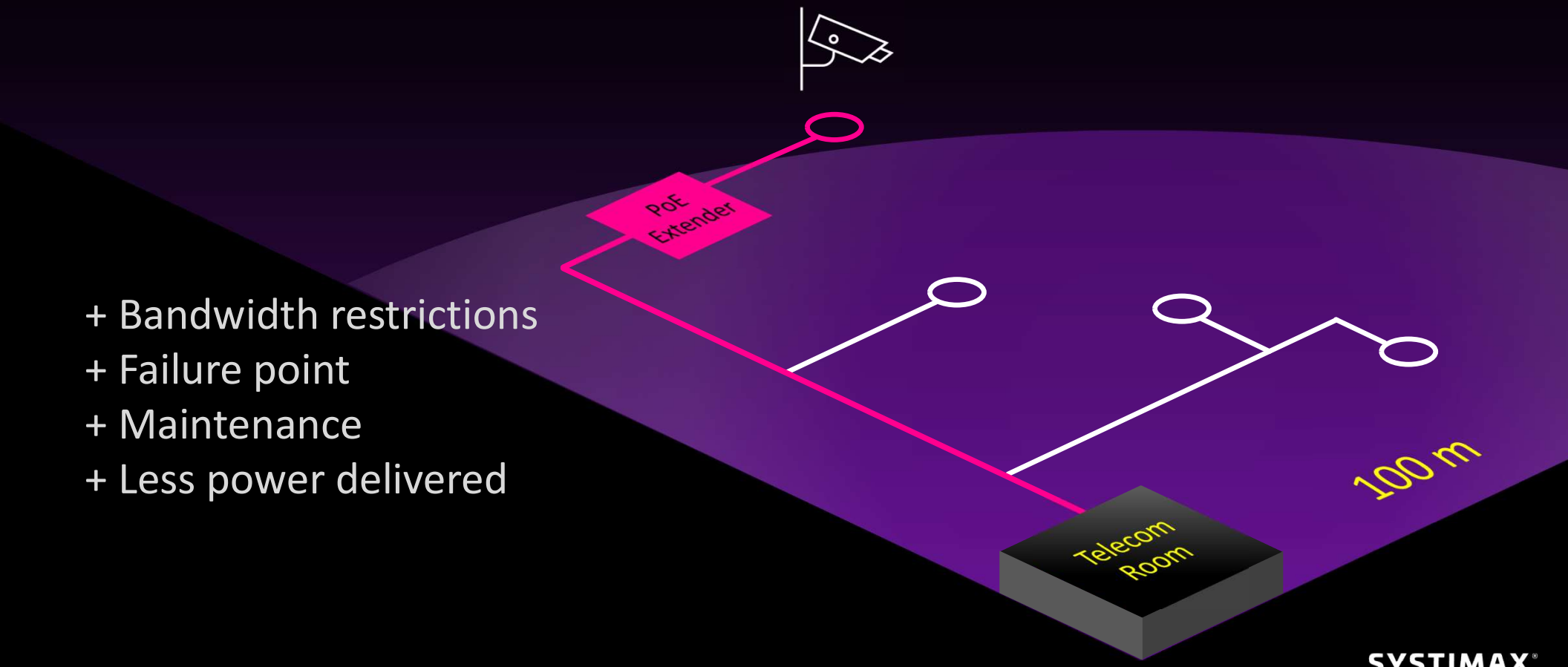
Use a PoE extender

+ Bandwidth restrictions
+ Failure point
+ Maintenance
+ Less power delivered



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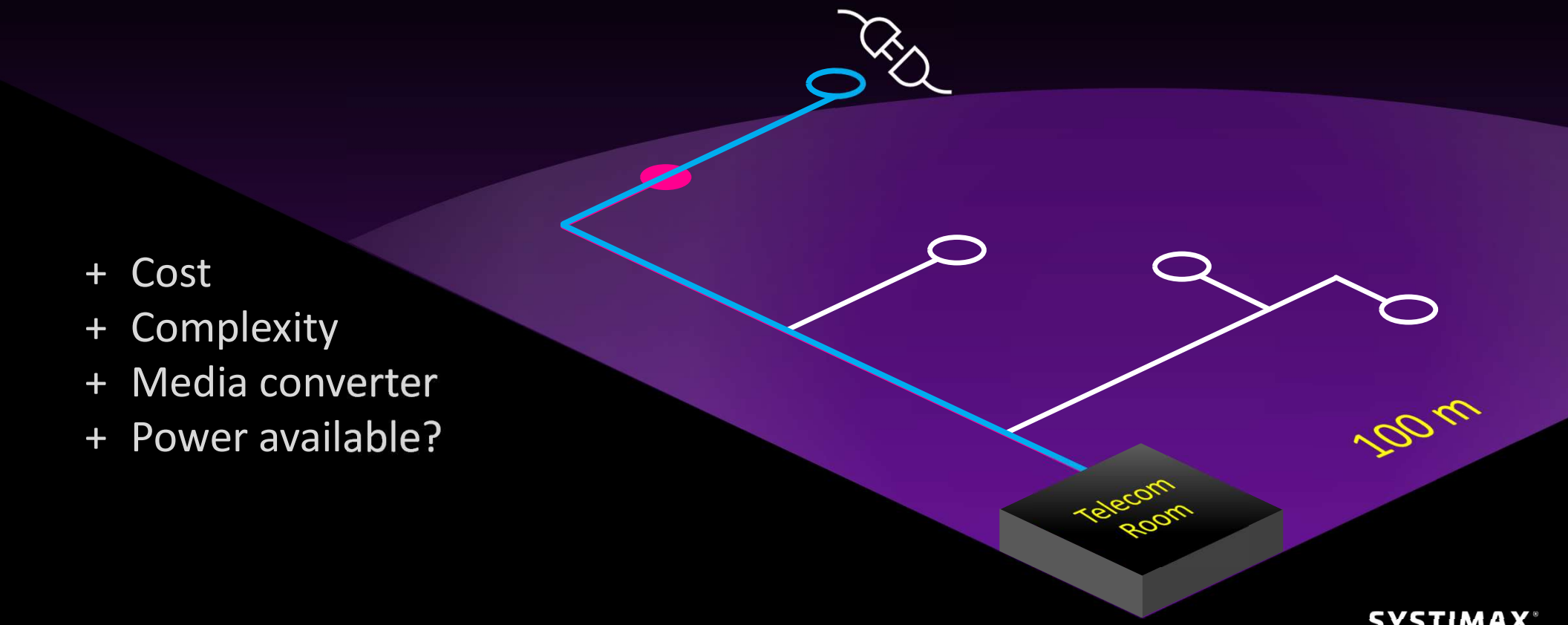
Switch from copper to fiber

+ Cost
+ Complexity
+ Media converter
+ Power available?



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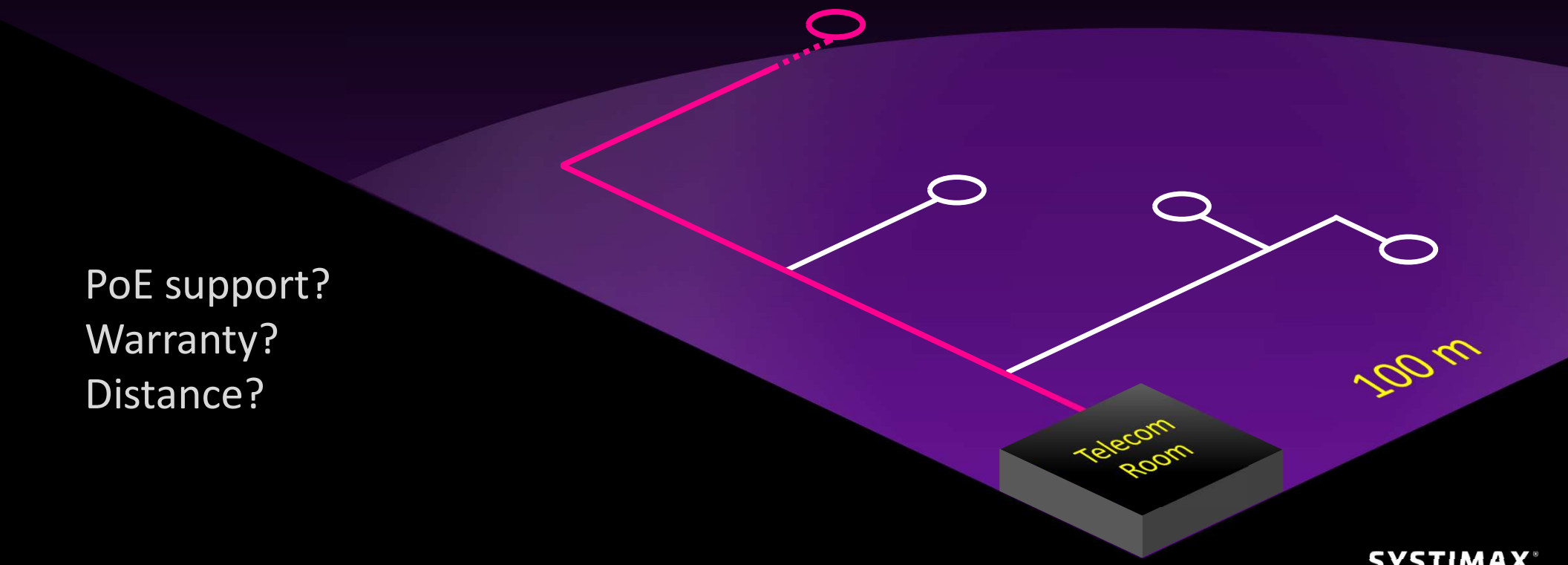
Use extended reach cabling (existing)

PoE support?
Warranty?
Distance?



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Extend your network's reach, not your risk

Why the need for extended reach

Current options to go beyond 100 meters

GigaREACH XL

Powered fiber

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AGENDA

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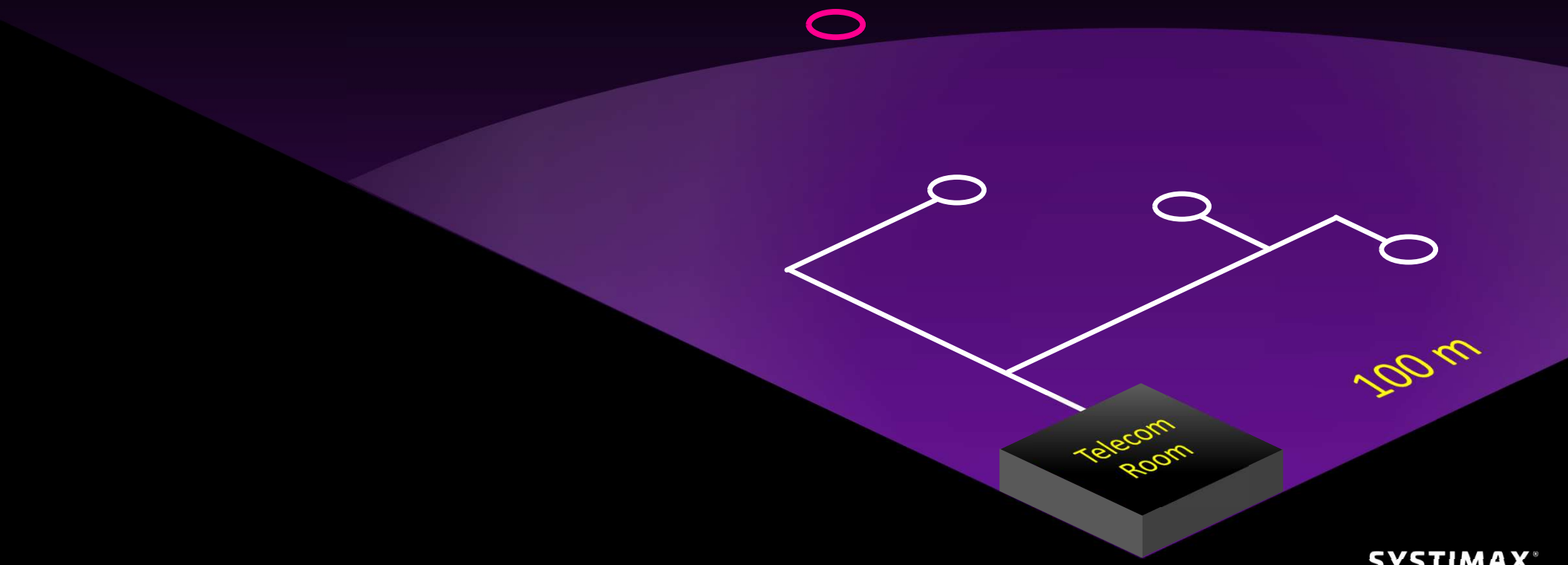
Are there other options to extend the reach?



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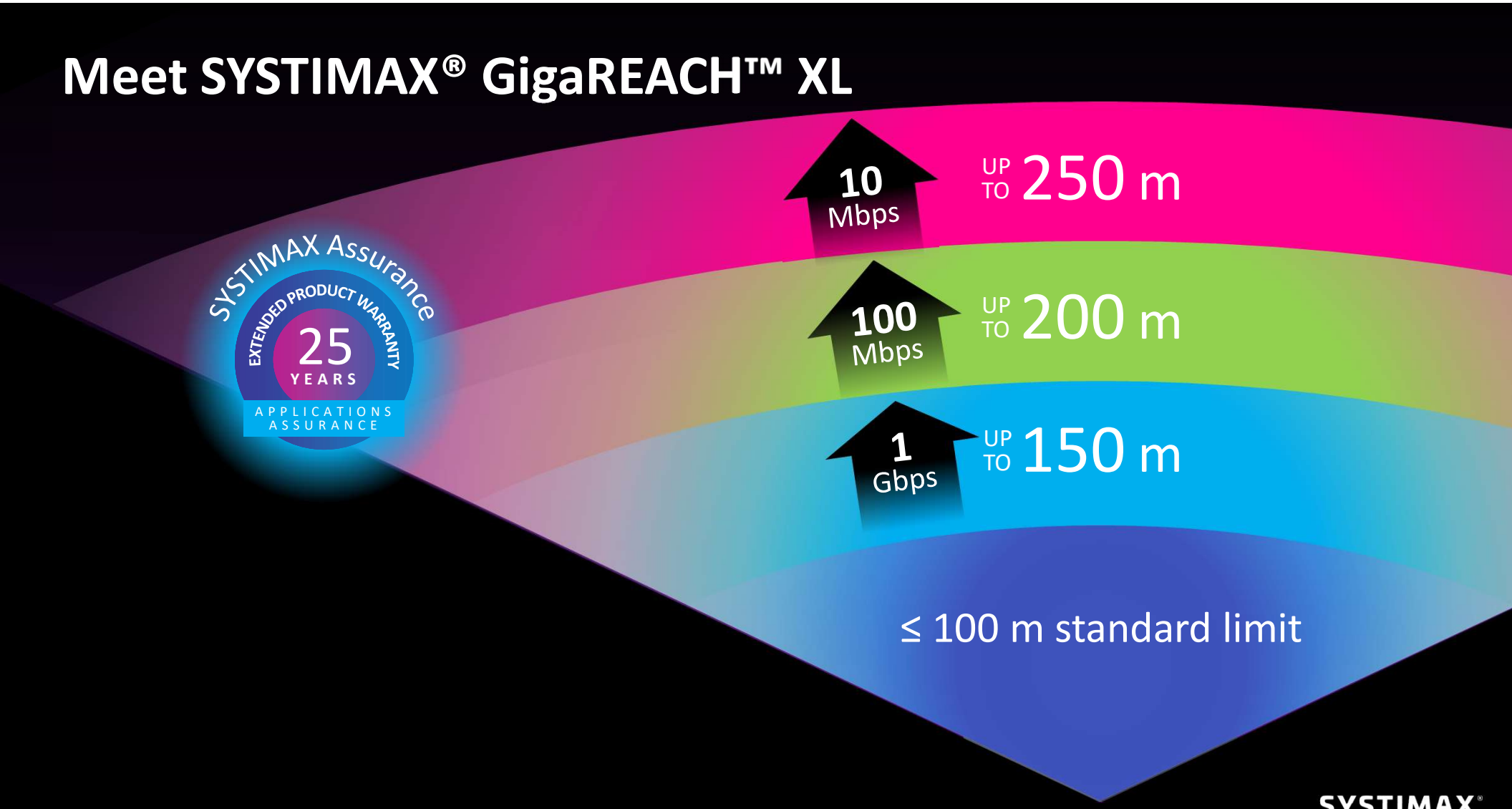
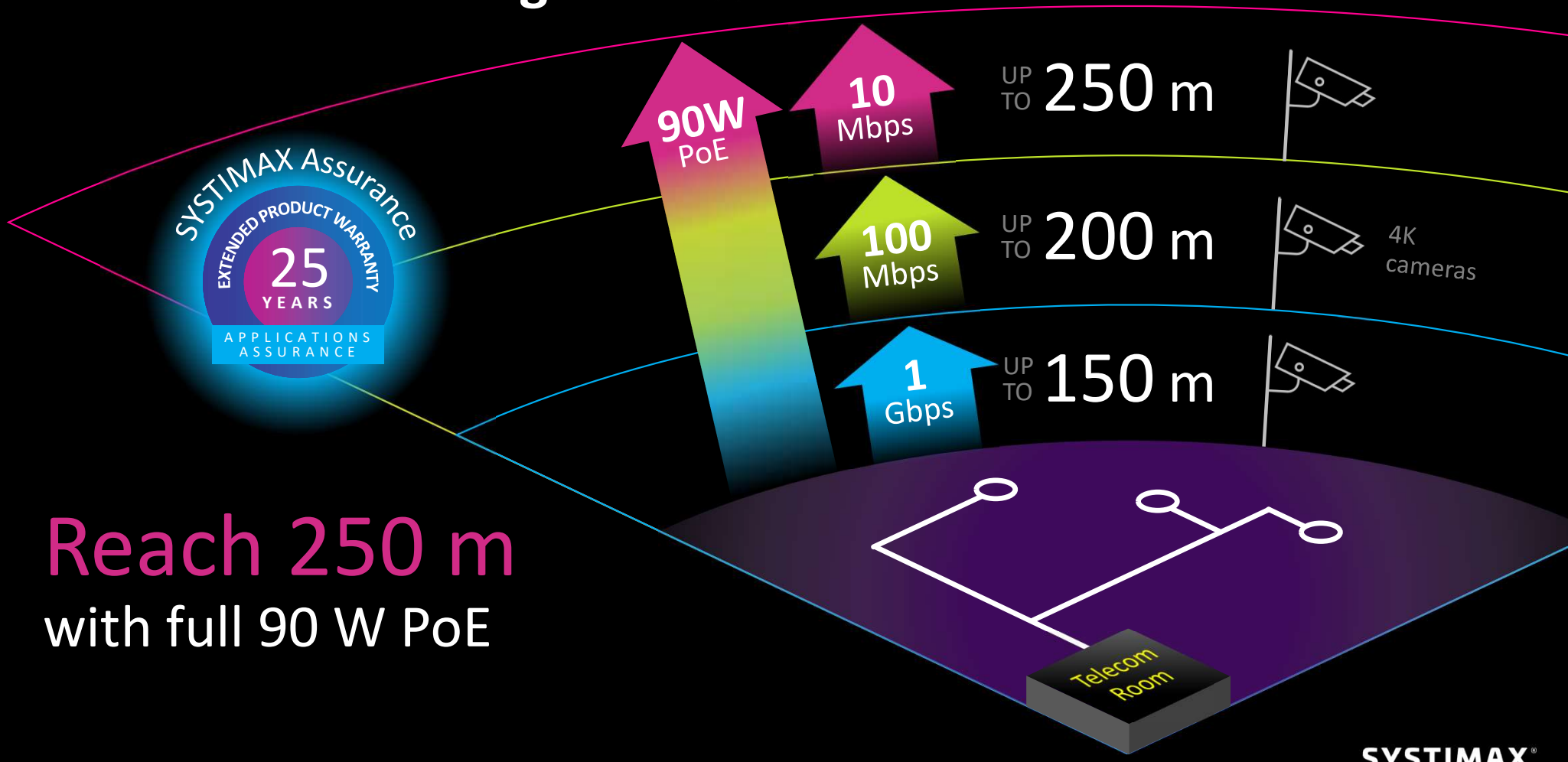
Meet SYSTIMAX® GigaREACH™ XL



SYSTIMAX®
COMMSCOPE

Meet SYSTIMAX® GigaREACH™ XL



Reach 250 m

with full 90 W PoE

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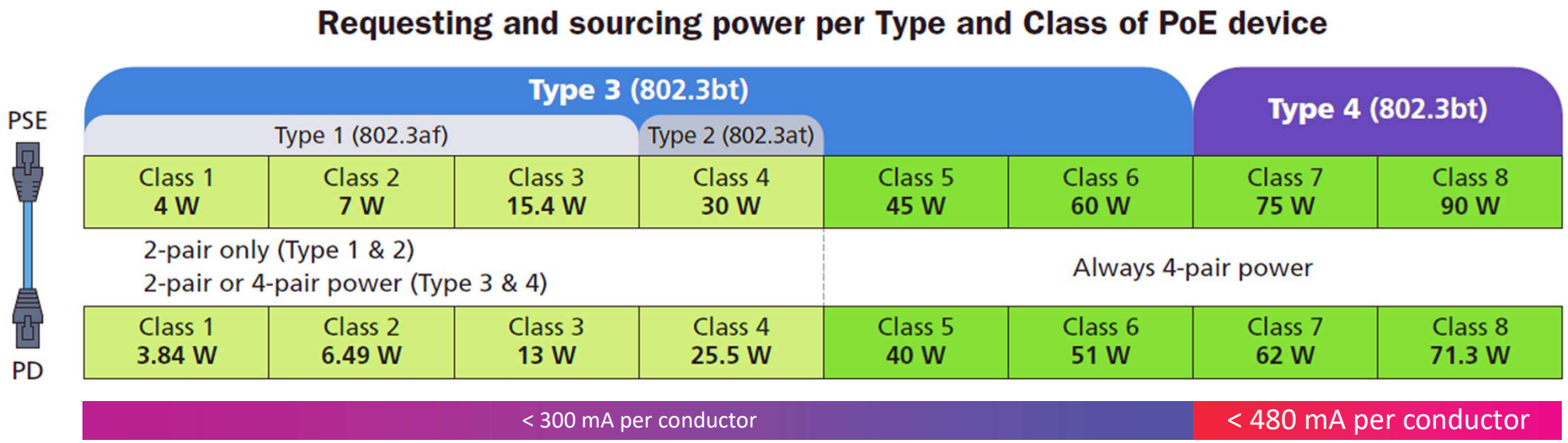
IEEE PoE standardized equipment

Power source equipment (PSE)—transmission losses (cabling) = power delivered (PD)



The ultimate in PoE future-proofing with no restrictions on bundling with any classes!

All GigaREACH XL channels support all Types and Classes of PoE, including Class 8, where the transmitter is required to be able to provide a minimum of 90 W of power and the extended reach cabling is assured to deliver at least 71.3 W of power to each attached Class 8 device.

SYSTIMAX components supported in GigaREACH channels

All GigaSPEED XL jacks and panels

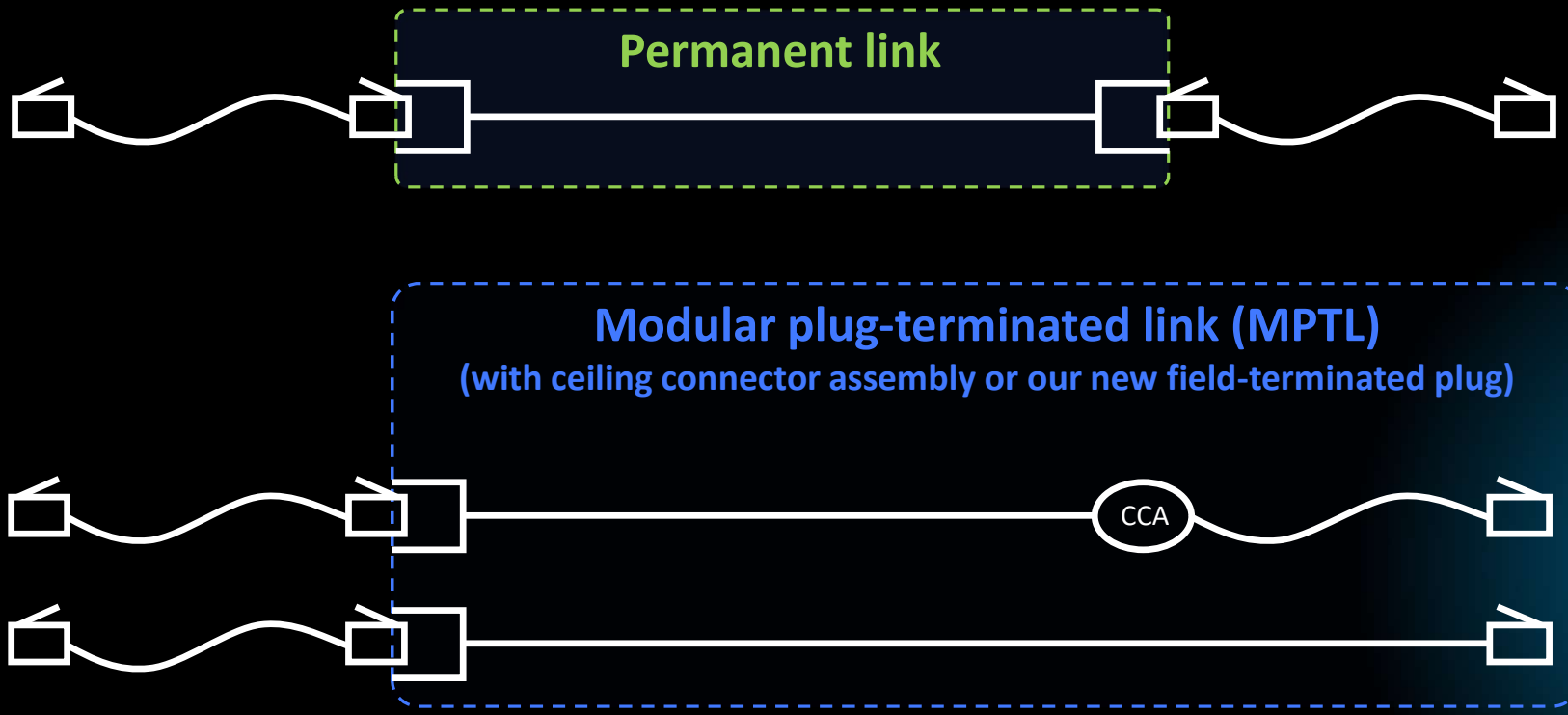
Ceiling connector assembly (CCA)

All GigaSPEED XL cords

New field-term plug

Detailed channel engineering rules for these and additional components under development, including elevated temperature derating factors

POSSIBLE TESTING ARCHITECTURES



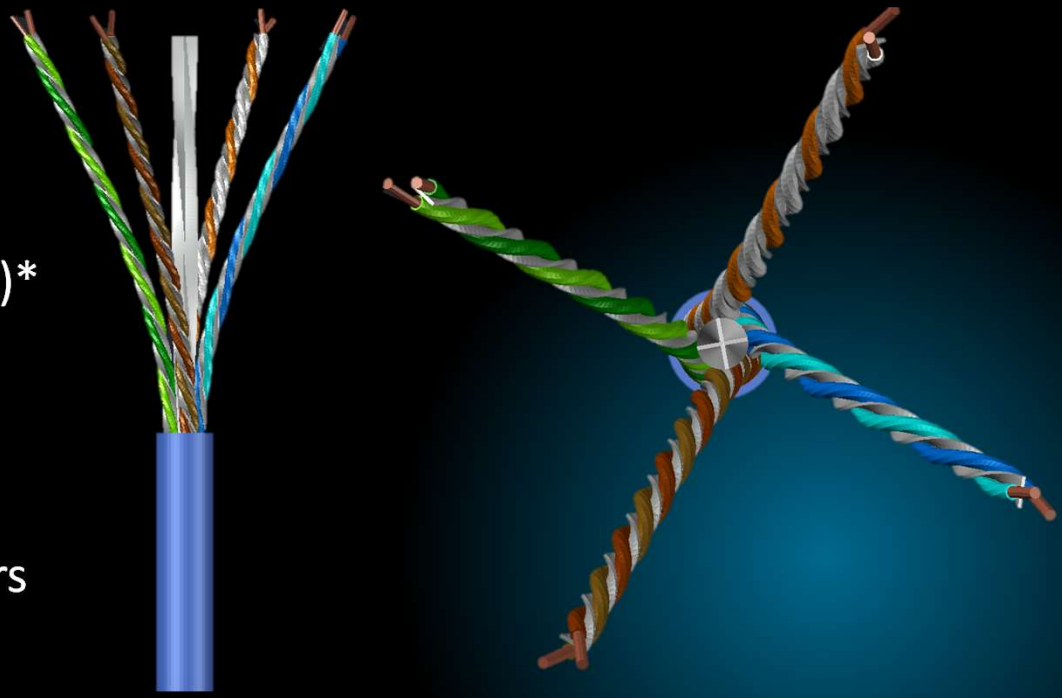
SYSTIMAX®

GigaREACH™ XL

THE WHAT.

WHAT'S UNDER THE HOOD?

- 21 AWG
- Plenum, riser, LSZH or outdoor
- Outside diameter: <6.6 mm (<0.26 inch)*
- Connectivity: GigaSPEED XL
- Certified to meet Cat 6 cable specs
- Meets Cat 6 channel specs when used with GigaSPEED XL cords and connectors



* outdoor cable is approximately 1 mm larger diameter

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SYSTIMAX®

GigaREACH™ XL

THE HOW.

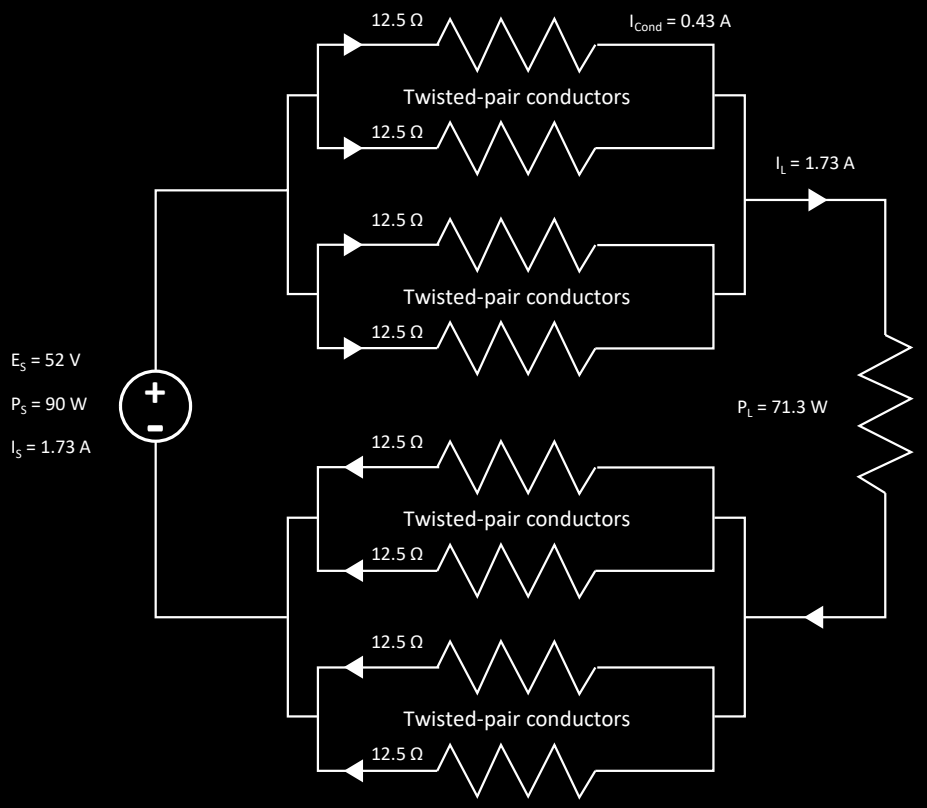
PROPRIETARY TWIST TECHNOLOGY

Proprietary twist technology

Lowest loss conductor ➔

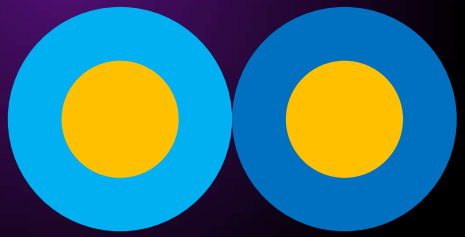
≈ Half power tx. loss vs standard Cat 6

- ↓ Insertion loss
- ↓ Voltage drop over distance
- ↑ Energy savings
- ↑ Sustainability
- ↑ Power budget over longer distance



SYSTIMAX® COMMSCOPE

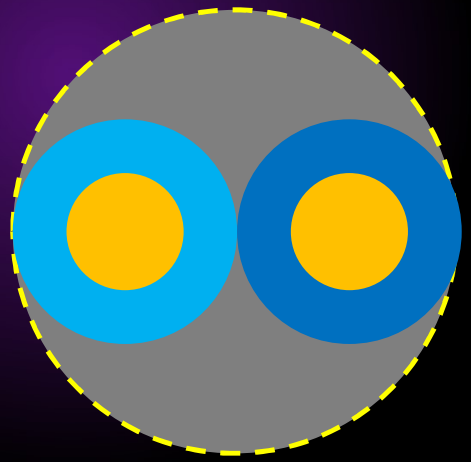
Conventional pairs vs. our unique thin-walled TPS pairs



Conventional twisted pair

- 23-gauge copper conductors
- Thick insulation spaces conductors apart to obtain mandatory 100-ohm impedance

Conventional pairs vs. our unique thin-walled TPS pairs



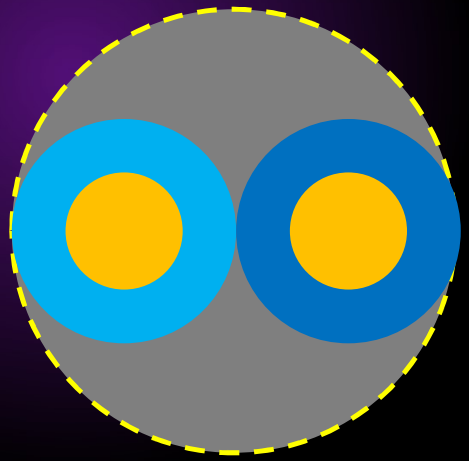
Conventional twisted pair

- 23-gauge copper conductors
- Thick insulation spaces conductors apart to obtain mandatory 100-ohm impedance
- Very tight twists assure pairs “claim” the cross-sectional area shown in gray

SYSTIMAX®
GigaREACH™ XL

THE HOW.
PROPRIETARY TWIST TECHNOLOGY

Conventional pairs vs. our unique thin-walled TPS pairs



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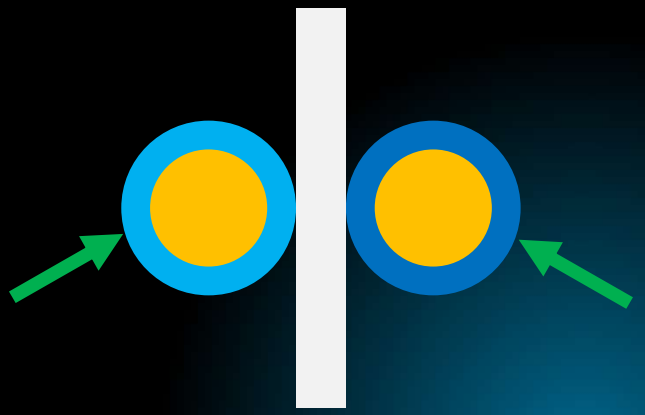


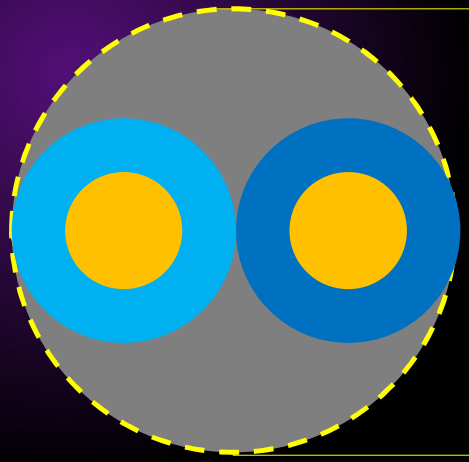
Twisted pair with TPS (tape-pair-separator)

- 23-gauge copper conductors (i.e., same)
- Thin insulation plus TPS spaces conductors the same distance apart to obtain the same mandatory 100-ohm impedance
- Reduces unnecessary insulation on outside edge of the pairs

SYSTIMAX®
GigaREACH™ XL

THE HOW.
PROPRIETARY TWIST TECHNOLOGY

Conventional pairs vs. our unique thin-walled TPS pairs



Conventional twisted pair

- 23-gauge copper conductors
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- Very tight twists assure pairs “claim” the cross-sectional area shown in gray

Twisted pair with TPS (tape-pair-separator)

- 23-gauge copper conductors (i.e., same)
- Thin insulation plus TPS spaces conductors the same distance apart to obtain the same mandatory 100-ohm impedance
- Reduces unnecessary insulation on outside edge of the pairs
- The cross-sectional area claimed by the pair is reduced

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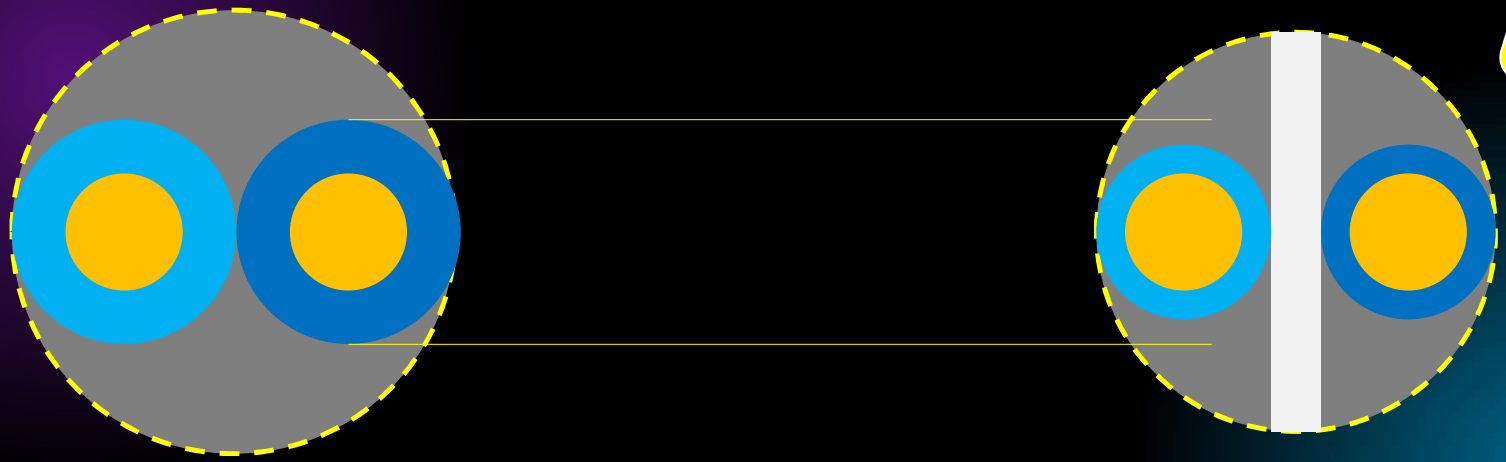
GigaREACH™ XL

THE HOW.
PROPRIETARY TWIST TECHNOLOGY

Conventional pairs vs. our unique thin-walled TPS pairs



Protected by issued and pending patents

Conventional twisted pair

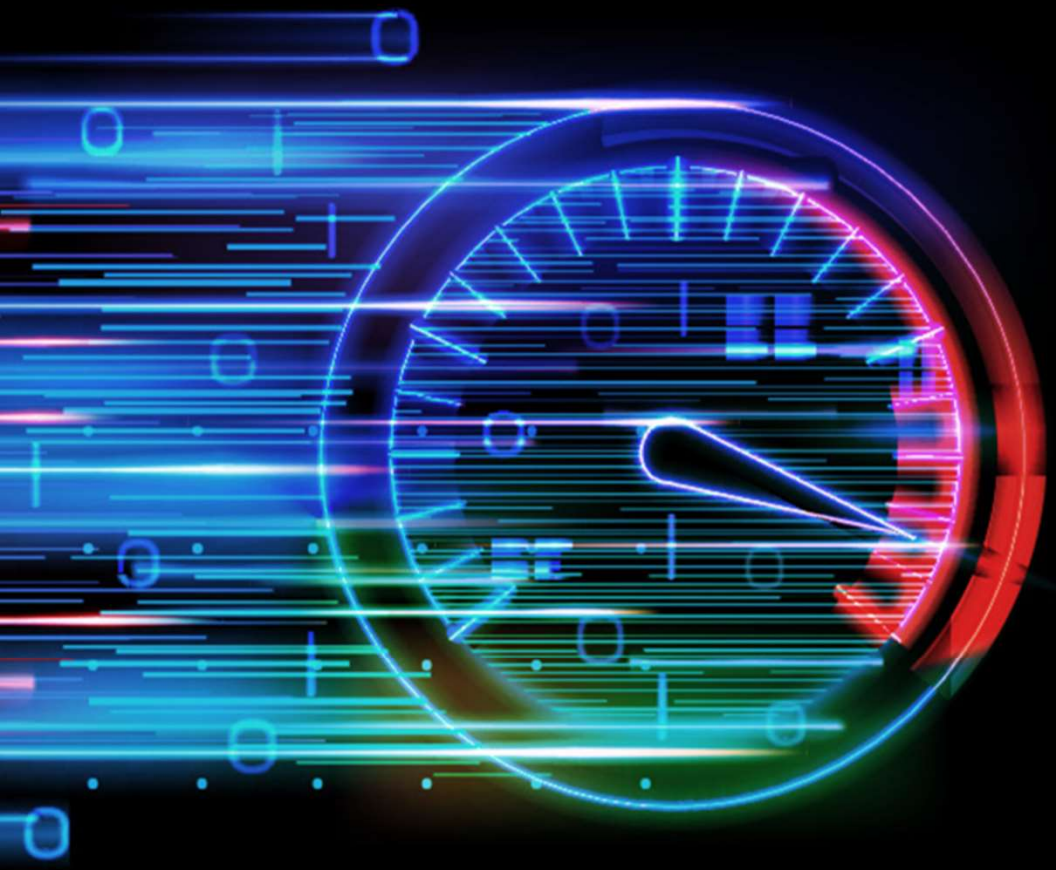
- 23-gauge copper conductors
- Thick insulation spaces conductors apart to obtain mandatory 100-ohm impedance
- Very tight twists assure pairs “claim” the cross-sectional area shown in gray

Twisted pair with TPS (tape-pair-separator)

- 21-gauge copper conductors (26% larger)
- Insulated conductors are the same size as conventional 23-gauge conductors (fit in all conventional jacks and plugs)
- Area claimed by pair is only marginally larger than 23-gauge conventional pairs

THE BENEFITS.

EXTENDED REACH = EXPANDED OPTIONS



WARRANTIED PERFORMANCE

- 100 Mbps—200 m—90 W PoE
- 1 Gbps—150 m—90 W PoE
- 10 Mbps—250 m—90 W PoE
- Data/PoE performance is warrantied
- Low-loss conductor enabled by CommScope's patented technology

THE BENEFITS.

EXTENDED REACH = EXPANDED OPTIONS

NETWORK SIMPLIFICATION

- Fewer PoE extenders, media converters, and booster boxes and a more secure network
- Less equipment, fewer potential points of failure, reduced repair costs
- Accelerated deployment and turn-up of new services
- Fits any structured cabling architecture to support application convergence

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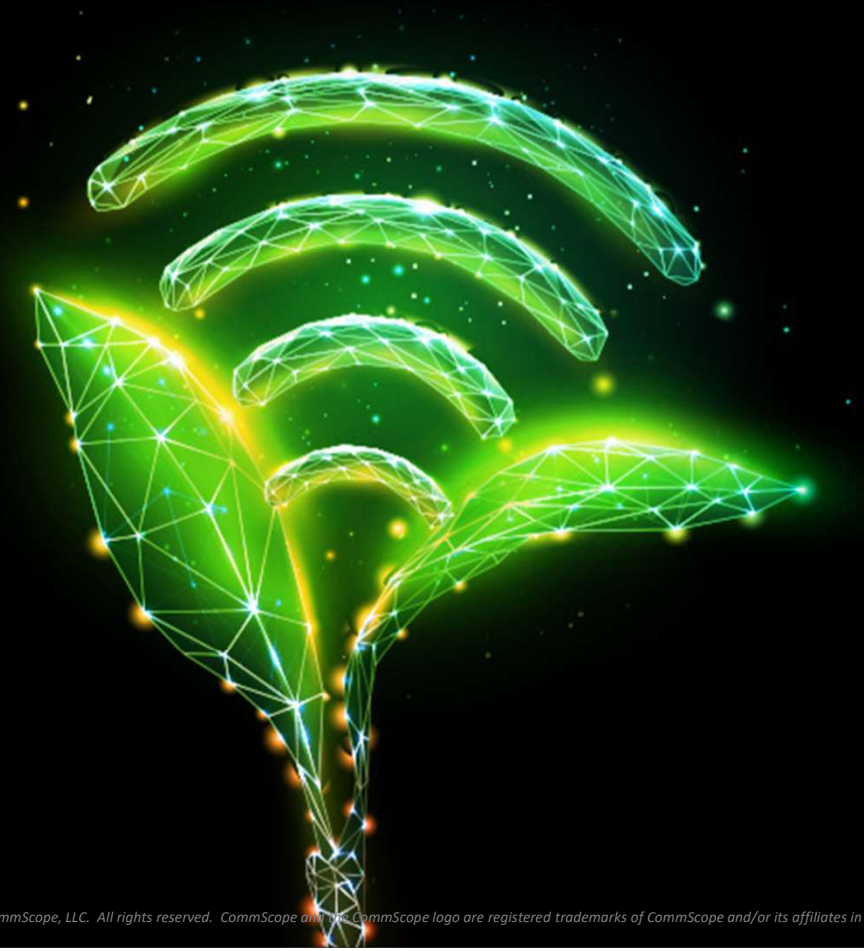
THE BENEFITS.

EXTENDED REACH = EXPANDED OPTIONS



INCREASED SUSTAINABILITY

- Reduced power energy losses → potential energy savings over multiple devices
- Less need for telecom rooms → lower environmental cost to build them
- Fewer points of failure → fewer truck rolls, lower fuel use and reduced GHGe

THE BENEFITS.

EXTENDED REACH = EXPANDED OPTIONS

PEACE OF MIND

- Included in the SYSTIMAX Assurance™ program
- All legacy SYSTIMAX support, including 25-Year Extended Warranty and Application Assurance
- 80+ systems engineering teams around the world
- 10,000+ SYSTIMAX-certified partners in 130 countries

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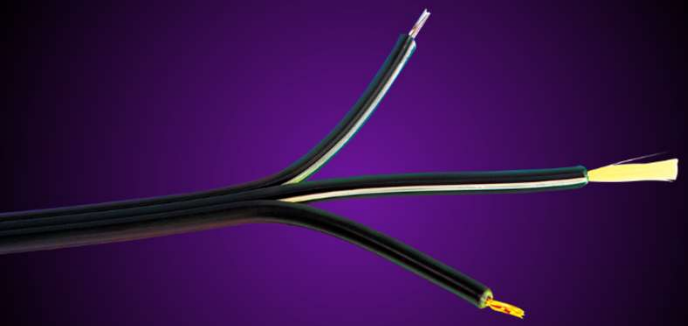
CommScope’s Extended Reach solutions

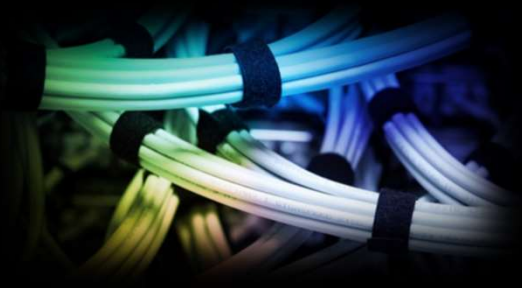


Powered fiber cable

- **Up to 3,000 m supported distance**
- **PoE++ (distance dependent)**
- **Hybrid power and fiber cable**
- **Uses PoE extenders**
- **Ideal for a limited number of devices**
- **Perfect solution for campuses**

Constellation®

- **500 m on fiber + copper distance**
- **1000 W aggregate**
- **Fault-managed power**
- **Hybrid power and fiber cable**



GigaREACH

- **Up to 250 m + 90 W PoE**
- **Same structured cabling architecture**
- **Same tools and installation practices as for GigaSPEED XL**

Extend your network’s reach, not your risk

Why the need for extended reach

Current options to go beyond 100 meters

GigaREACH XL

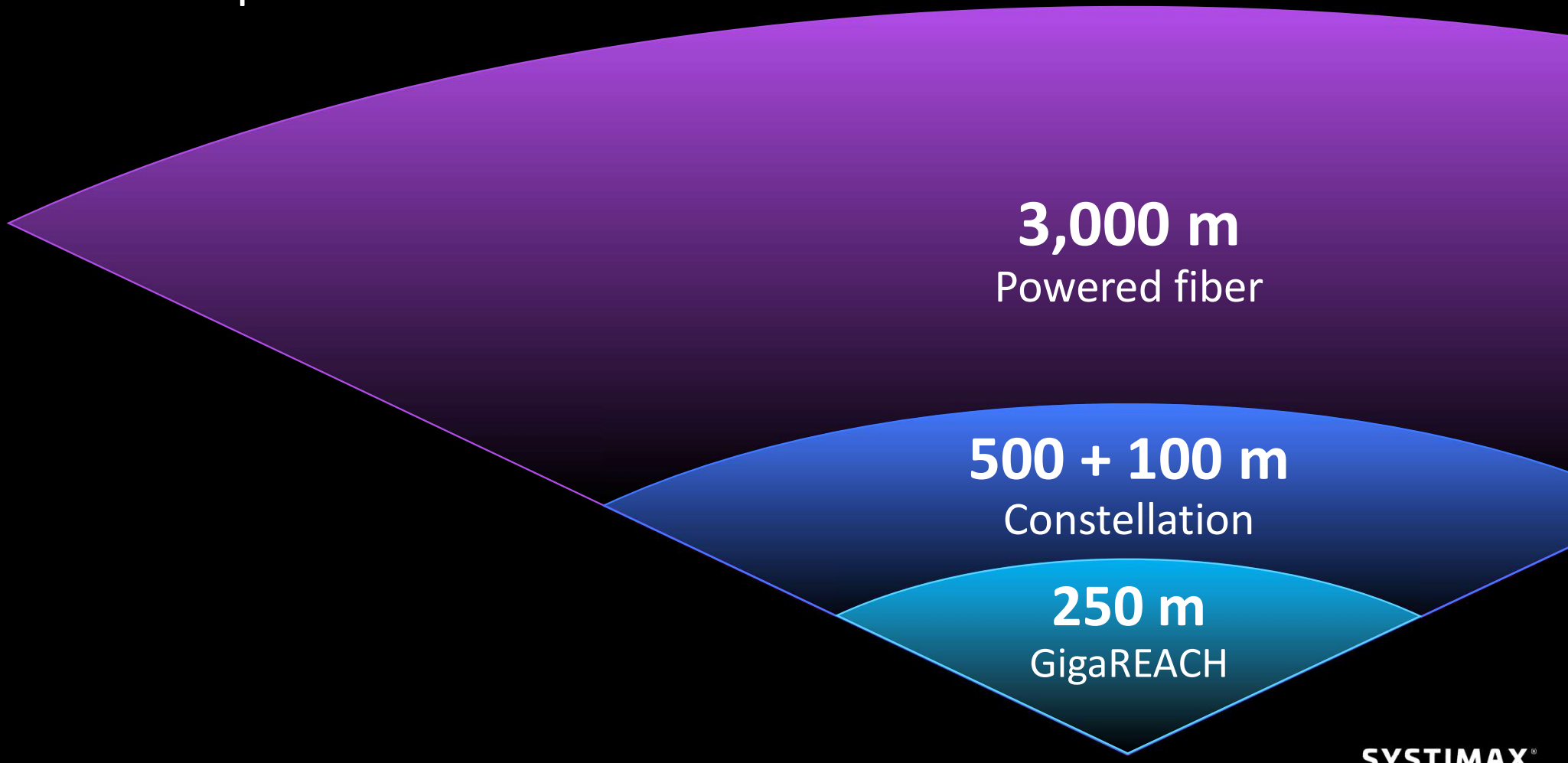
Powered fiber

Constellation

AGENDA

SYSTIMAX® COMMSCOPE

CommScope’s Extended Reach solutions



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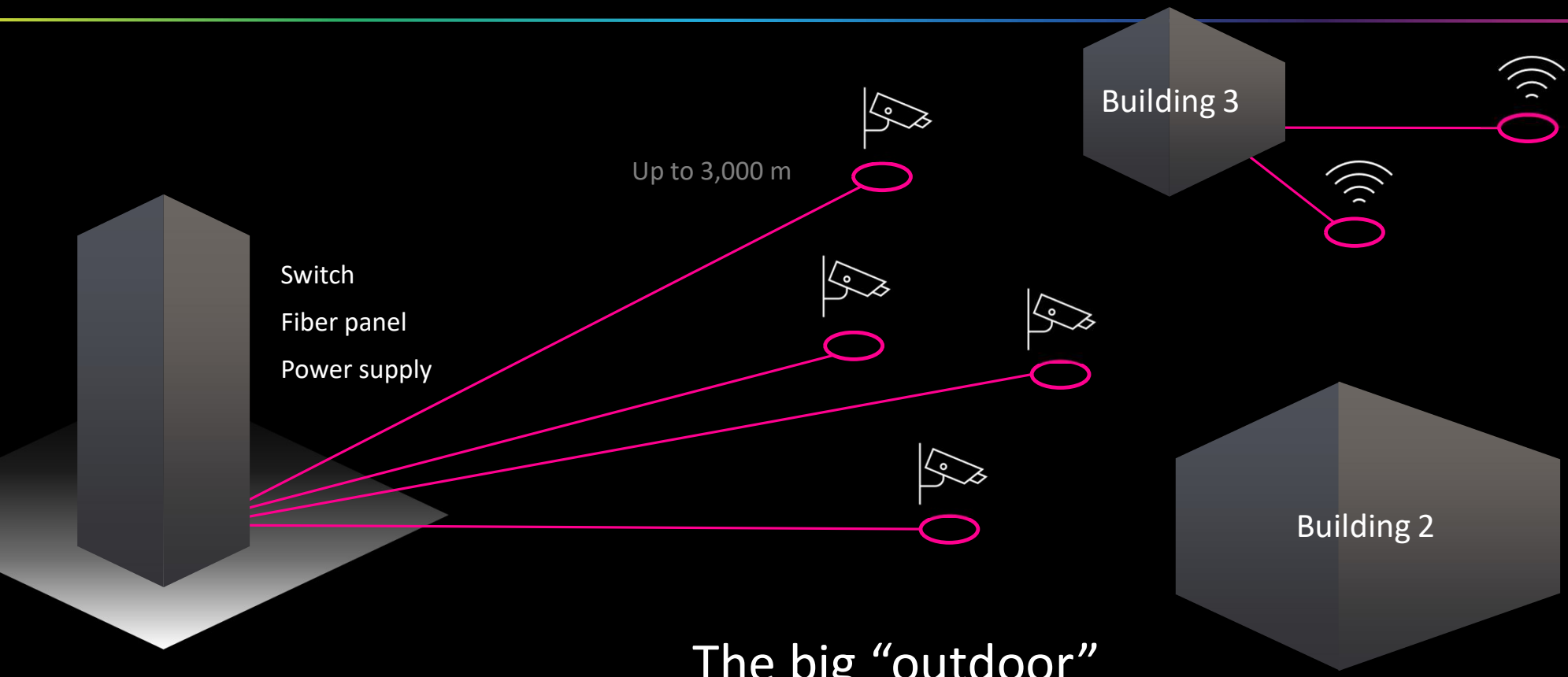
Powered fiber solution



The big “outdoor”

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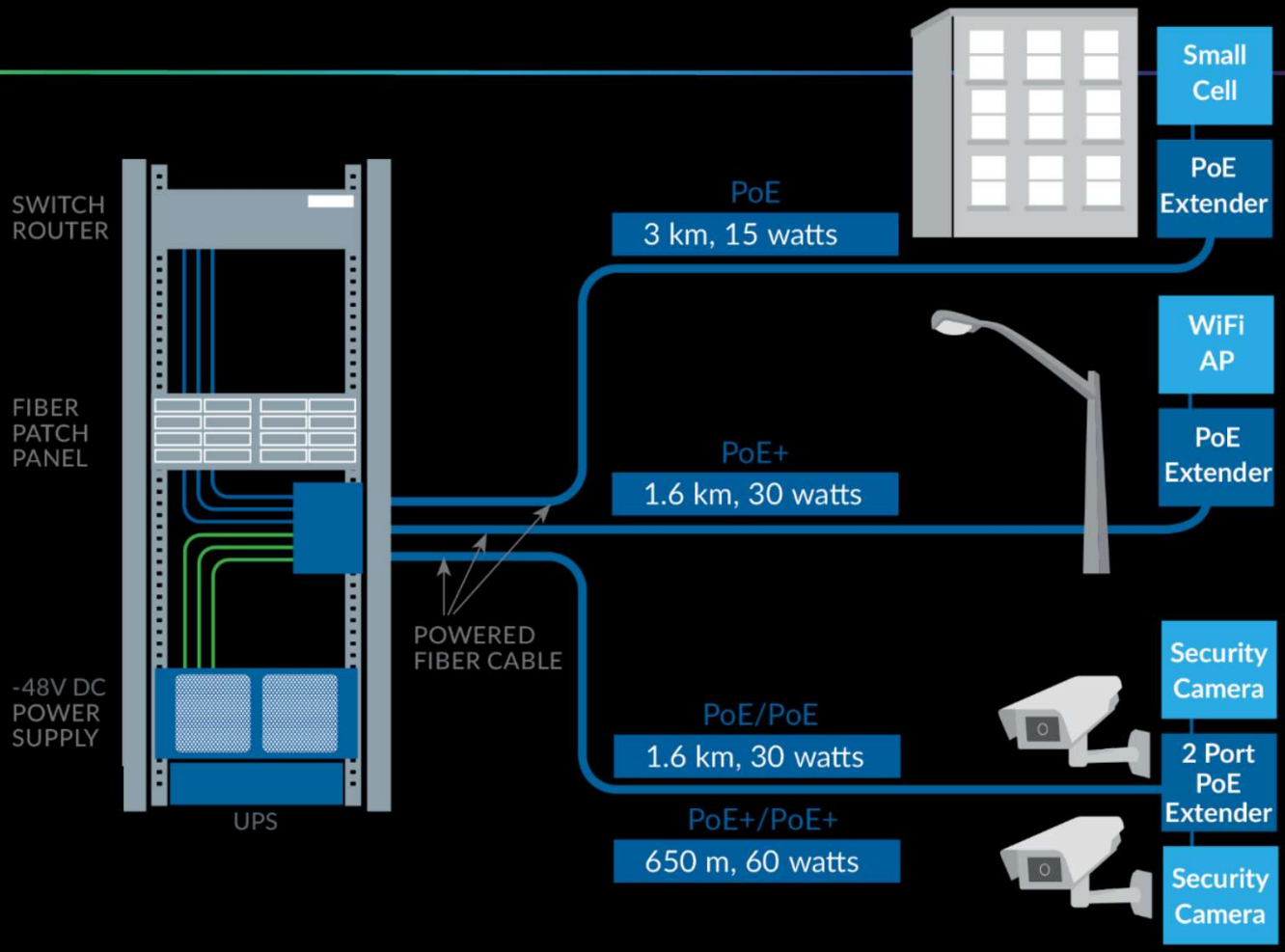
Powered fiber solution



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Real deployment pictures

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2030 brings new challenges for ICT

DENSIFICATION

- Densification of devices and network capacity
- The network is critical for power delivery
- Day 2 design flexibility is imperative
- Power and data need to be highly accessible
- Wired devices will reside in ceiling
- Converged and segmented IT/ OT systems

DEPLOYMENT SPEED

- Demand for installers exceeds labor market
- More projects with same or smaller workforce
- Reduce installer risk with modular design
- Improve design velocity

SUSTAINABILITY

- We need to address architecture and technology with core sustainability in mind
- Reduce, re-use, recycle
- Increase the utility, availability and lifespan of the building network

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Thank you