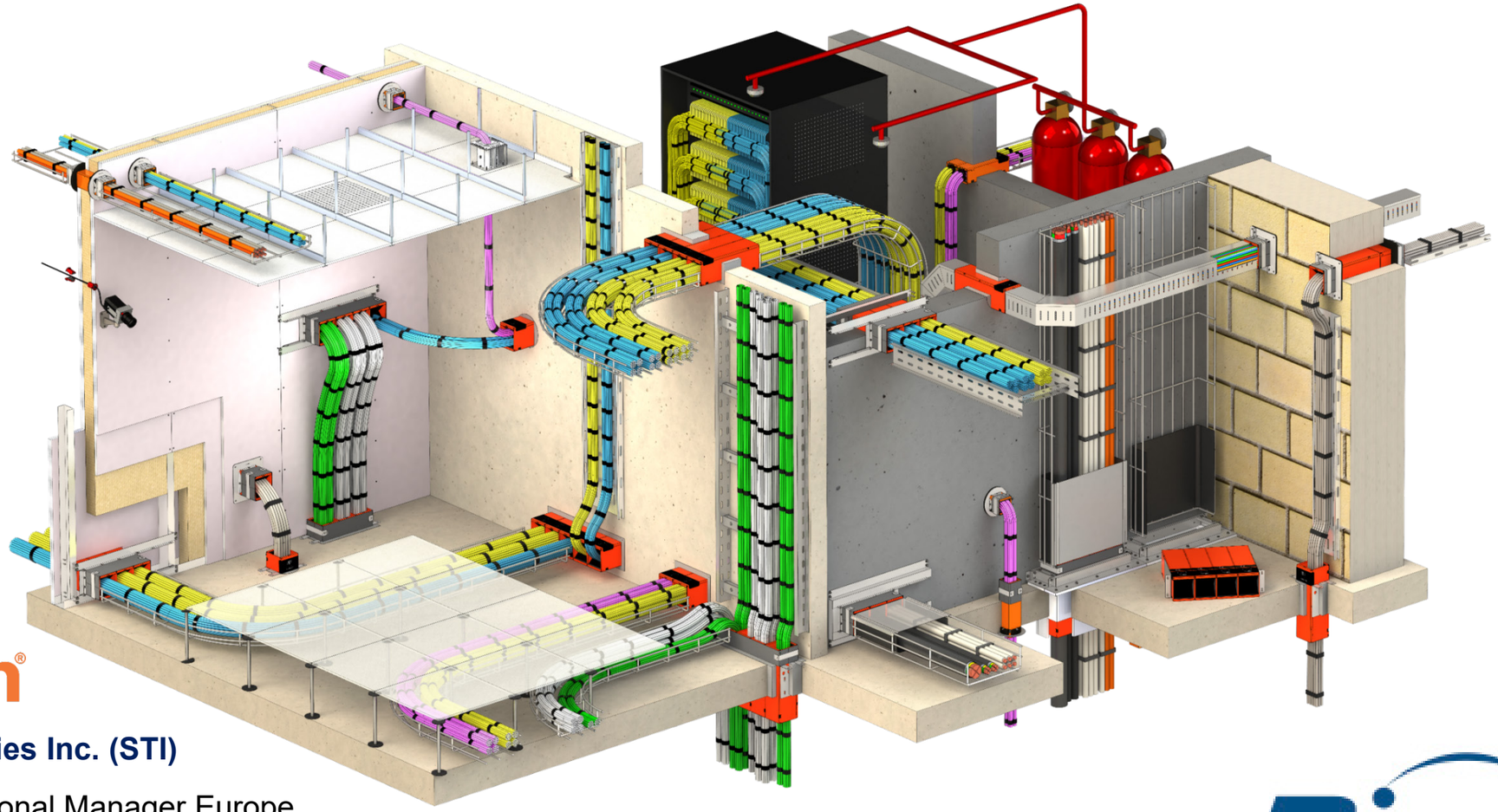
Cable Penetration Seals for Cable Management

Passive Fire Protection

Cable Management

Fire Stopping

Cable Protection



EZ-Path®

Specified Technologies Inc. (STI)

Erik Holswilder – Regional Manager Europe

Fabrice Gaudard – EMEA Technical Manager

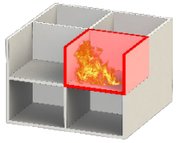
Bicsi

CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

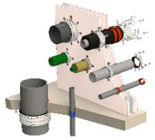
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

CE **Code and testing methods**



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements for data and low voltage cables

Hidden costs and risks of cable penetration seals

EZ-Path®

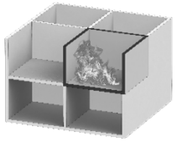
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

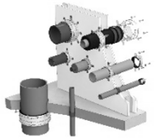
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

CE **Code and testing methods**



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements

Hidden costs and risks

EZ-Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

FIRE PROTECTION

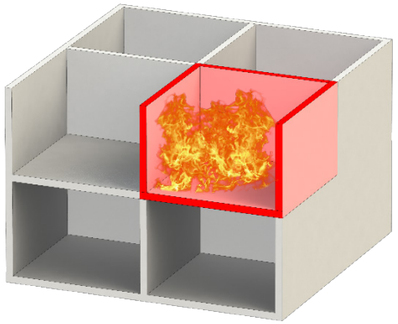
DETECTION

Systems designed to discover fire early in their development for safe evacuation of occupants

SUPPRESSION

Also known as active fire protection, systems designed to extinguish and prevent the spread of fire in a building

CONTAINMENT



Also known as passive fire protection, fire rated walls and floors are built to restrict the spread of fire to another area.

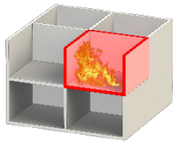
Methods of providing fire detection, fire containment and extinguishment

CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

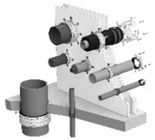
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

Code and testing methods



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements

Hidden costs and risks

EZ-Path®

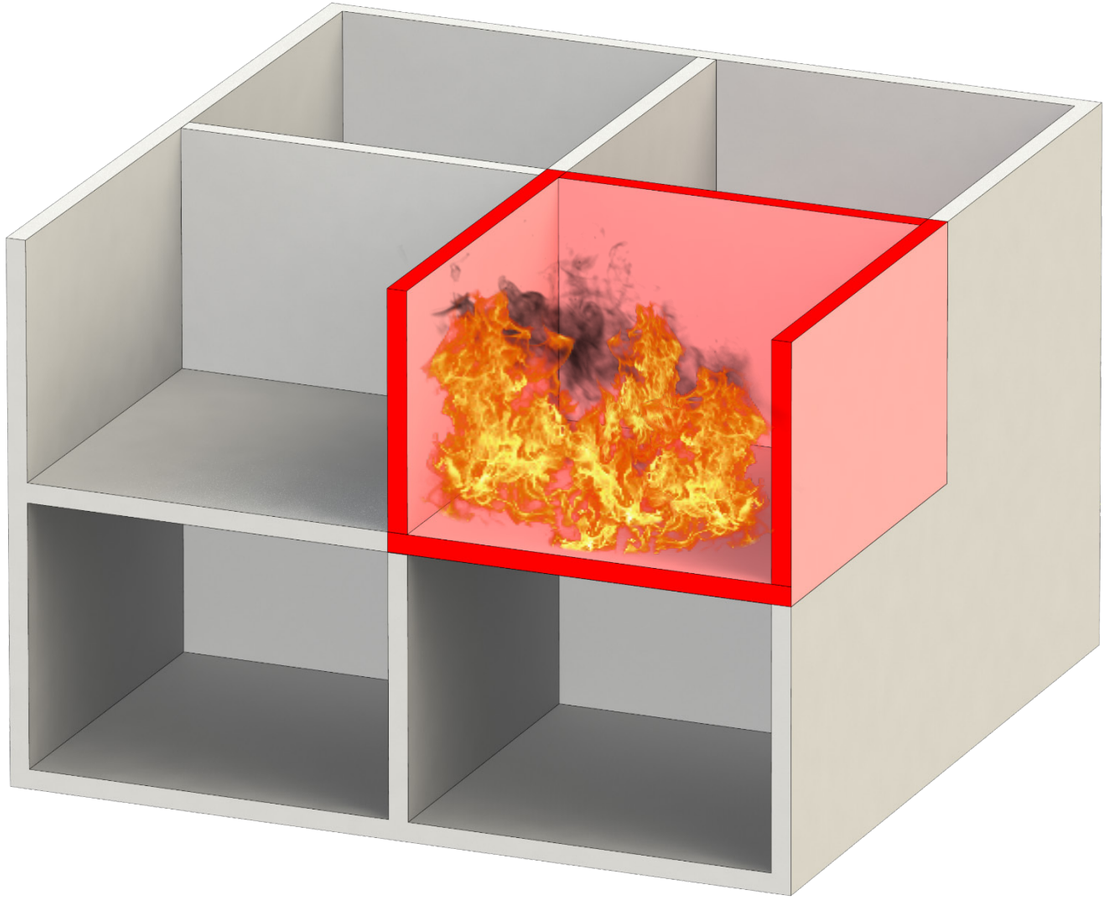
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

Fire Containment

Fire containment is also known as <u>Passive Fire Protection</u>

Passive fire protection can be described as the process of restoring the fire rating of the barriers (walls and floors) which have lost their fire resistance from construction openings.

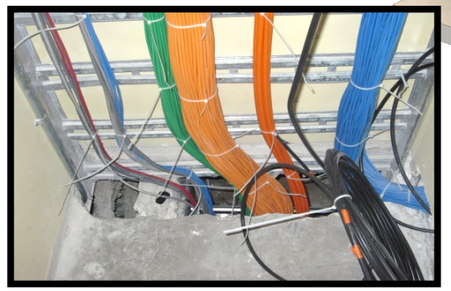
Penetration seals are the systems installed where openings had been made to restore the original fire resistance of the barrier



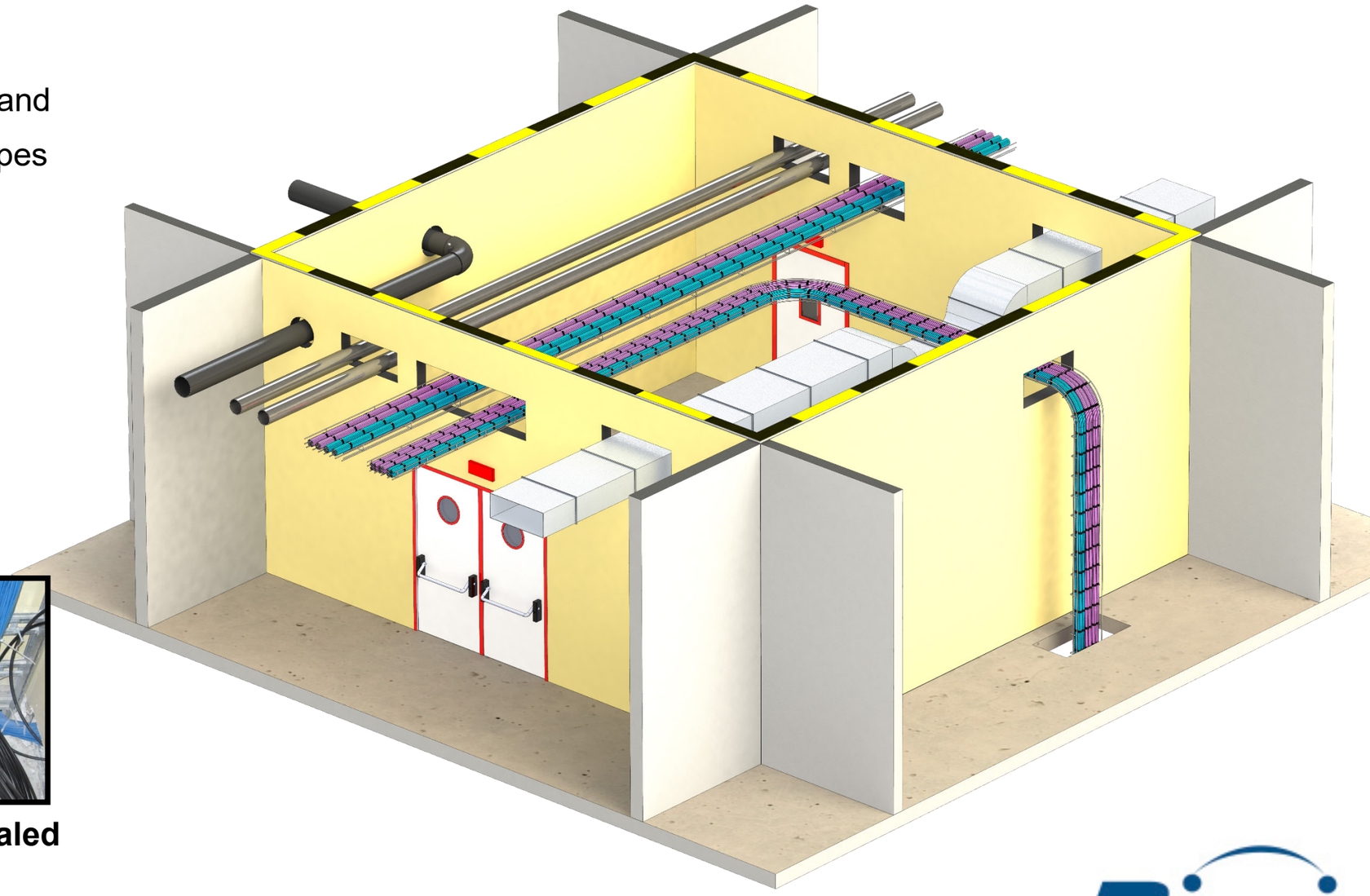
Passive Fire Protection

Openings are made in fire rated walls and floors for services as cables / plastic pipes / metallic pipes / ducts / busbars ….

Wall and floors are not fire rated anymore.



Openings are not sealed

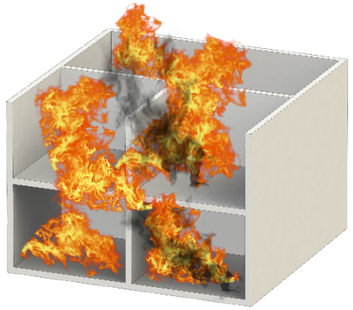


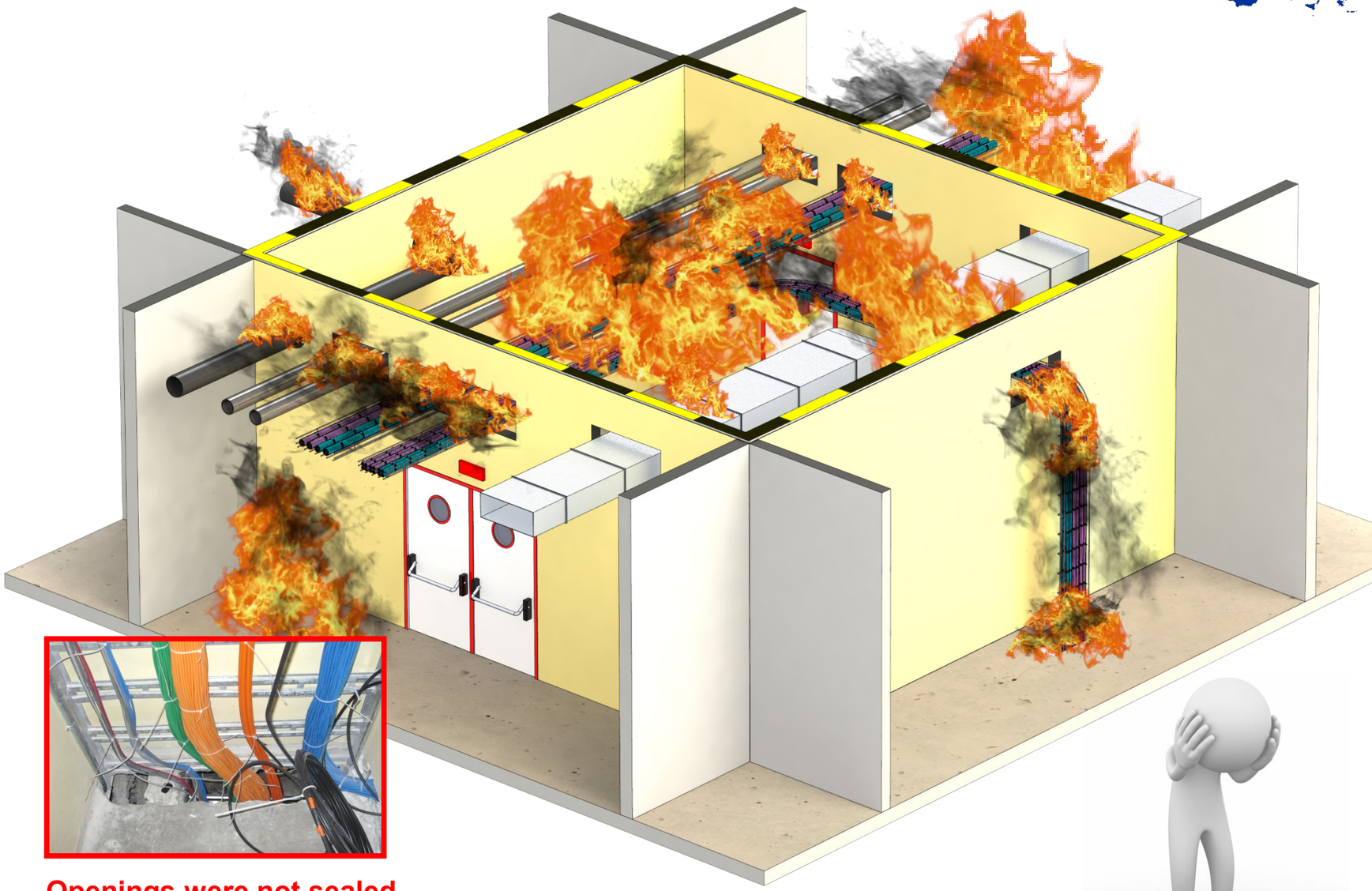
Passive Fire Protection

When openings are made for services,

fire rated barriers lost their fire resistance.

Fire can progress to other areas





Openings were not sealed

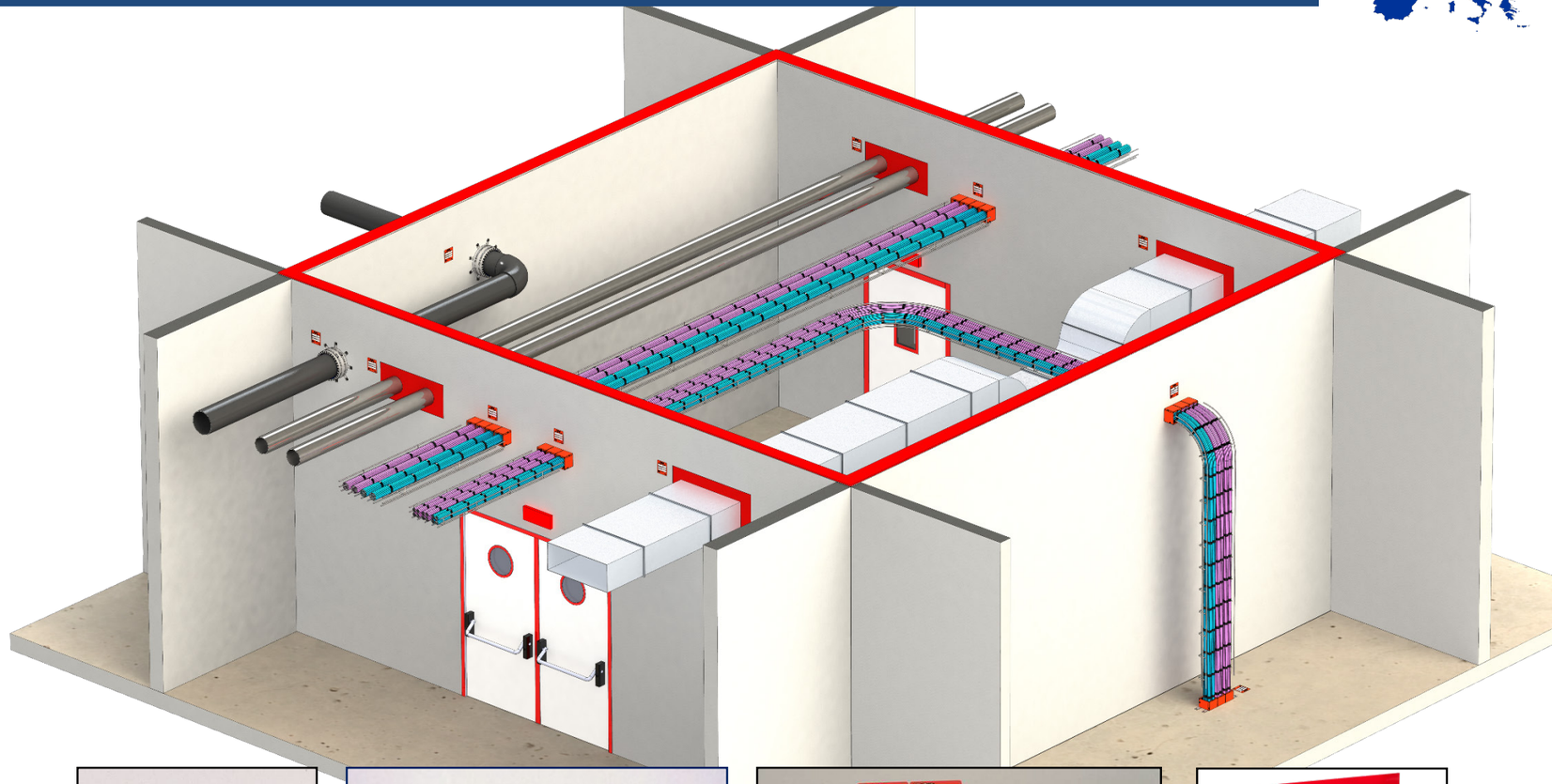
Passive Fire Protection

How to restore the resistance of fire rated barriers ?

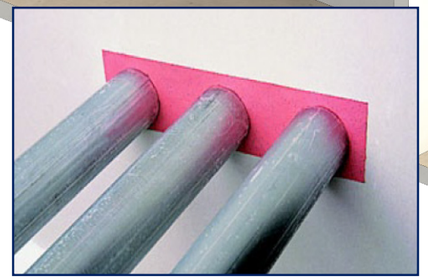
Passive Fire Protection shall be implemented.

Fire Stopping

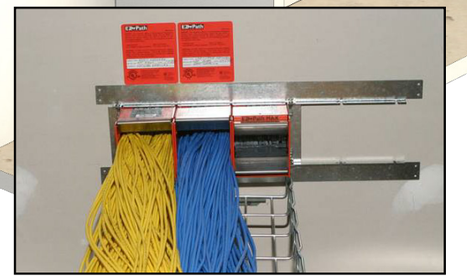
Penetration seals are installed in each opening to restore the fire resistance of the area



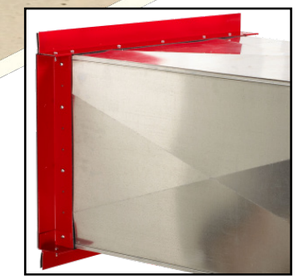
Plastic pipe



Metallic pipe



Cables

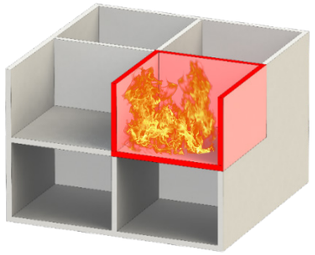


HVAC duct

Passive Fire Protection

Penetration Seals prevent the fire from progressing to other areas

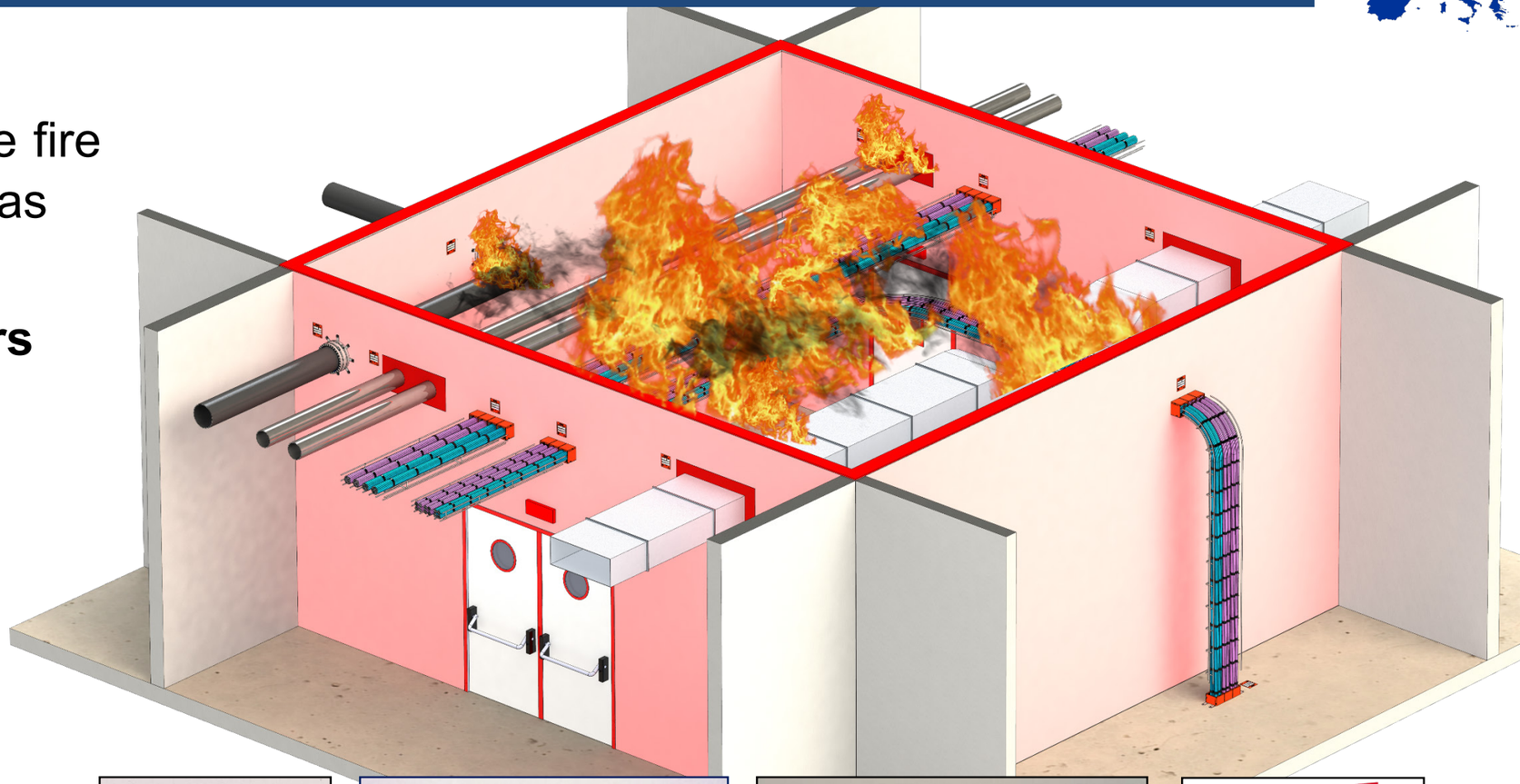
The fire rating of the barriers had been restored



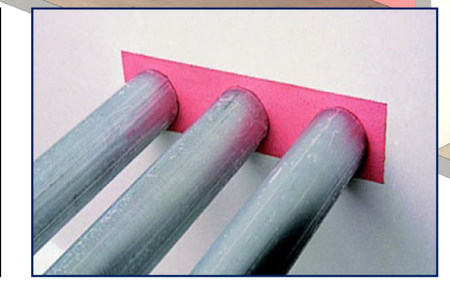
Fire Stopping

Fire is contained.

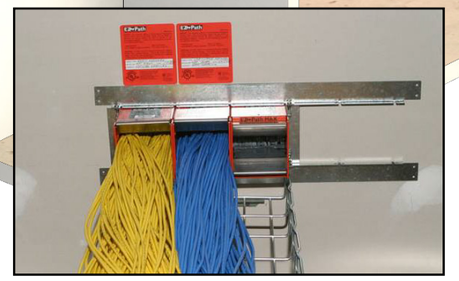
The rest of the building is safe.



Plastic pipe



Metallic pipe



Cables

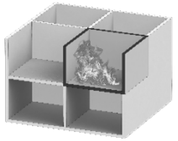
HVAC duct

CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

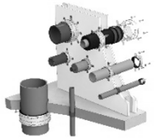
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

CE Code and testing methods



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements

Hidden costs and risks

EZ-Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

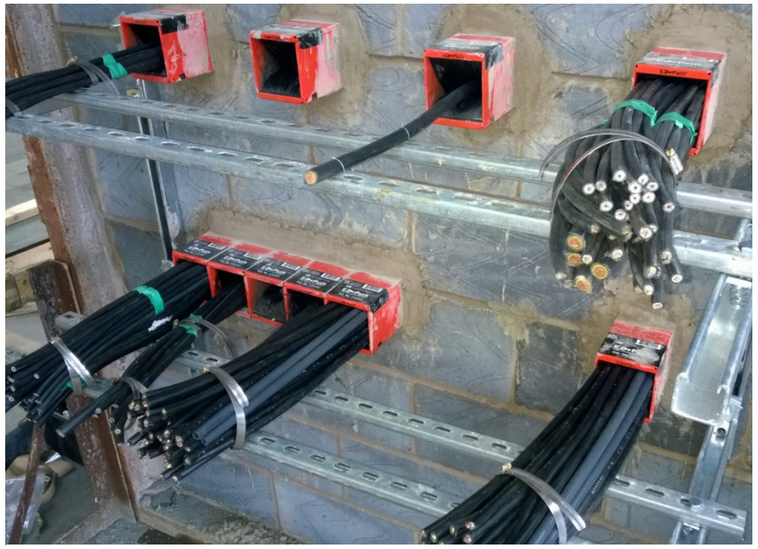
CODE and TESTING METHODS

Every **penetration seal system** for services and joints in walls and floors shall provide a fire resistance at minimum equal to the fire resistance of the fire rated barrier (wall or floor).

Regulation	**Testing methods**	**Certification**
Construction Product Regulation (CPR)	Fire resistance testing standard	Fire resistance classification
Directive 89/106/EEC	Fire Rated Barrier : EN1366-1	EN13501-2
	Penetration seals : EN1366-3	Performance up to 4 hours
	Construction joints : EN1366-4	EI30 / EI60 / EI120 / EI180 / EI240

CODE and TESTING METHODS

The fire test is run according to the **EN1366-3**
"*Fire resistance tests for service installations. Penetration seals*"



Rigid wall

Flexible wall

Rigid floor

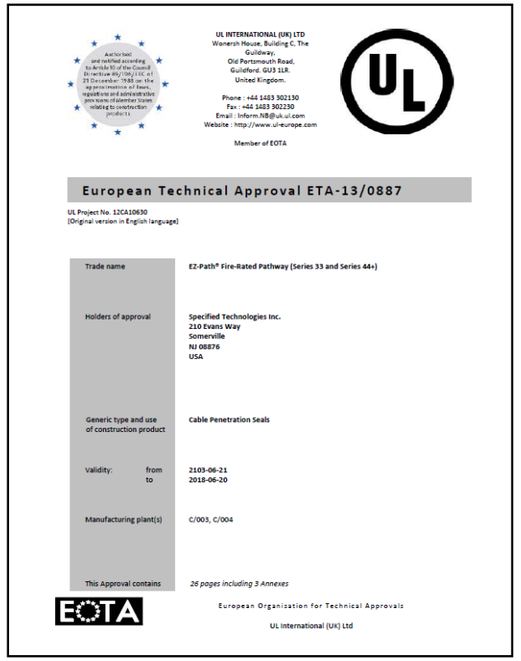
CODE and TESTING METHODS

CE Marking for Penetration Seals

- The CPR includes requirements for construction products to have the CE Marking and a declaration of performance (DoP).
- Construction product covered by a harmonised European standard (hEN) or for which ETA has to be CE marked.

► Why to apply for the CE Marking ?

To make sure that the product complies with CPR rules, and is under a quality control survey by a third party Notified Body



UL INTERNATIONAL (UK) LTD
Wonersh House, Building C, The Guildway,
Old Portsmouth Road,
Guildford. GU3 1LR.
United Kingdom.

Phone : +44 1483 302130
Fax : +44 1483 302230
Email : Inform.NB@uk.ul.com
Website : http://www.ul-europe.com

Member of EOTA

European Technical Approval ETA-13/0887

UL Project No. 12CA10630
(Original version in English language)

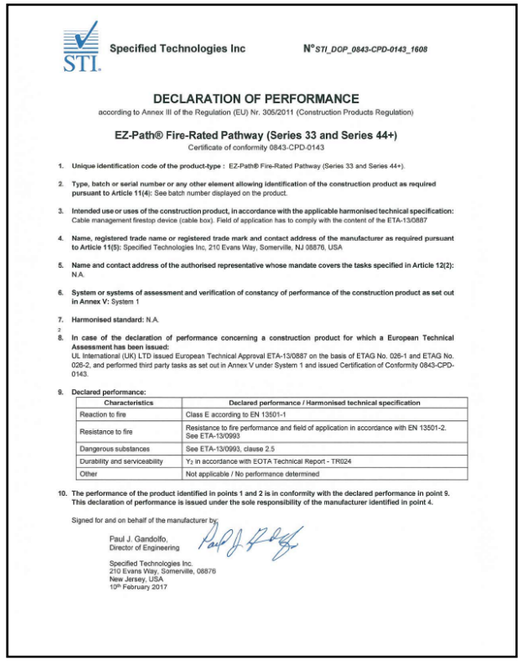
Trade name	EZ-Path® Fire-Rated Pathway (Series 33 and Series 44+)
Holders of approval	Specified Technologies Inc. 210 Evans Way Somerville NJ 08876 USA
Generic type and use of construction product	Cable Penetration Seals
Validity: from to	2103-06-21 2018-06-20
Manufacturing plant(s)	C/003, C/004
This Approval contains	26 pages including 3 Annexes

EOTA

European Organisation for Technical Approvals

UL International (UK) Ltd

European Technical Assessment (ETA)



Specified Technologies Inc

N°STI_DOP_0843-CPD-0143_1608

DECLARATION OF PERFORMANCE

according to Annex III of the Regulation (EU) Nr. 305/2011 (Construction Products Regulation)

EZ-Path® Fire-Rated Pathway (Series 33 and Series 44+)

Certificate of conformity 0843-CPD-0143

1. **Unique identification code of the product-type :** EZ-Path® Fire-Rated Pathway (Series 33 and Series 44+).
2. **Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article 11(4):** See batch number displayed on the product.
3. **Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification:** Cable management firestop device (cable box). Field of application has to comply with the content of the ETA-13/0887
4. **Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):** Specified Technologies Inc, 210 Evans Way, Somerville, NJ 08876, USA
5. **Name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):** N.A.
6. **System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:** System 1
7. **Harmonised standard:** N.A.
8. **In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:** UL International (UK) LTD issued European Technical Approval ETA-13/0887 on the basis of ETAG No. 026-1 and ETAG No. 026-2, and performed third party tasks as set out in Annex V under System 1 and issued Certification of Conformity 0843-CPD-0143.
9. **Declared performance:**

Characteristics	Declared performance / Harmonised technical specification
Reaction to fire	Class E according to EN 13501-1
Resistance to fire	Resistance to fire performance and field of application in accordance with EN 13501-2. See ETA-13/0993
Dangerous substances	See ETA-13/0993, clause 2.5
Durability and serviceability	Y_2 in accordance with EOTA Technical Report - TR024
Other	Not applicable / No performance determined

10. **The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.**

Signed for and on behalf of the manufacturer by:

Paul J. Gandolfo,
Director of Engineering

Specified Technologies Inc.
210 Evans Way, Somerville, 08876
New Jersey, USA
10th February 2017

Declaration of Performance (DOP)

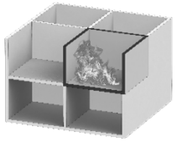
CPR = Construction Product Regulation

CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

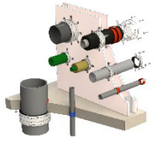
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

CE **Code and testing methods**



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements

Hidden costs and risks

EZ-Path®

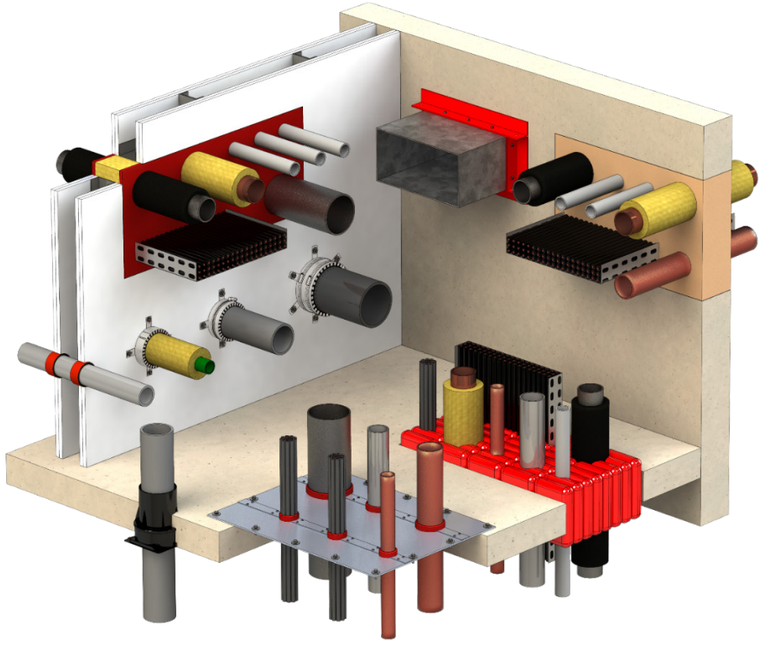
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

TYPES of PENETRATION SEALS

Fire Stopping

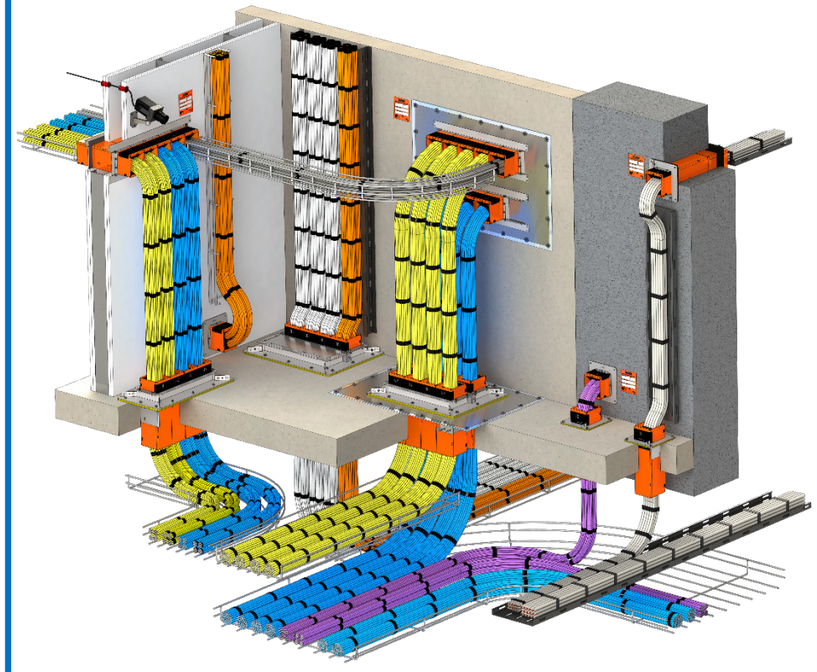
MEP

Mechanical, Electrical and Piping



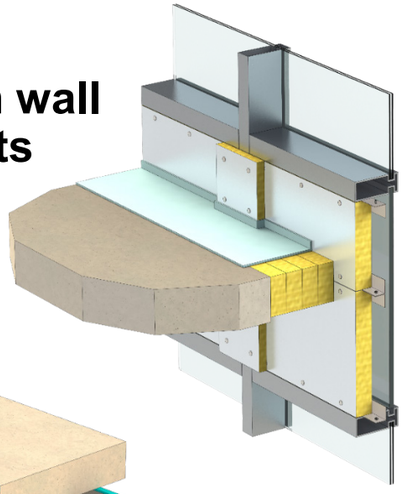
Fire Stopping

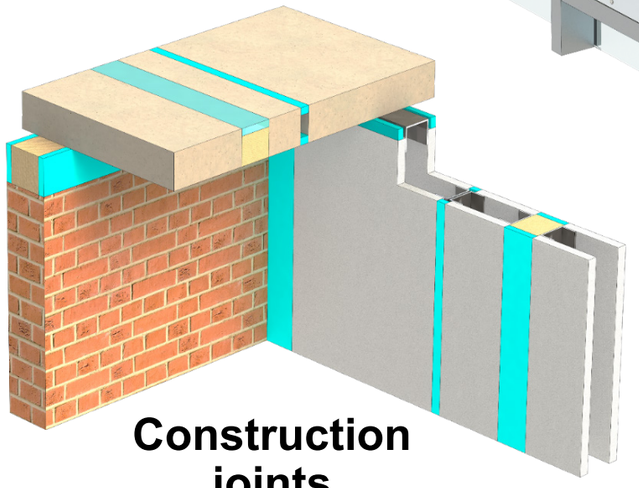
Data and low voltage cables



Fire Stopping

Curtain wall joints





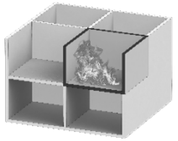
Construction joints

CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

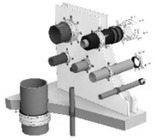
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

CE **Code and testing methods**



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements for data and low voltage cables

Hidden costs and risks

EZ-Path®

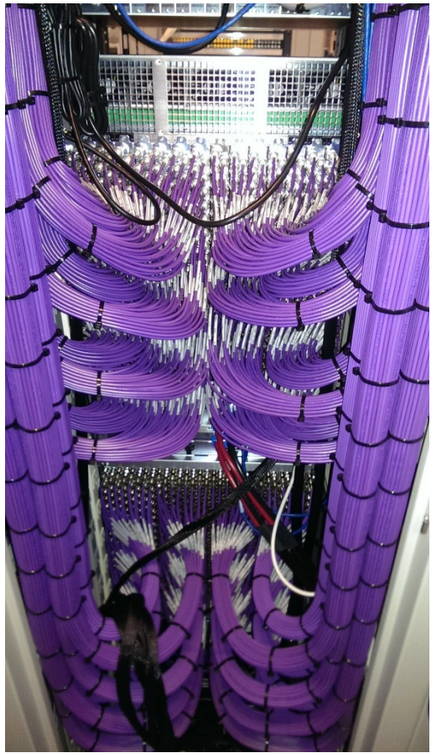
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

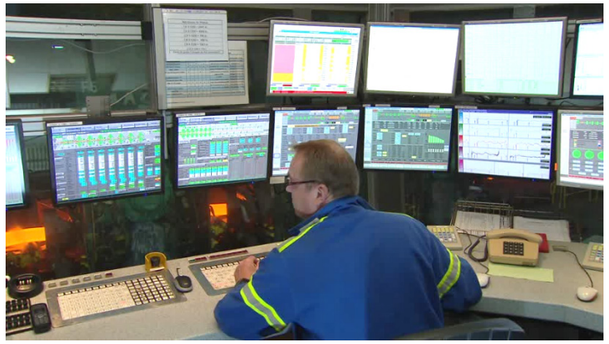
NEEDS and REQUIREMENTS FOR DATA and LOW VOLTAGE CABLING

Cable Moves, Adds and Changes

Working environments are changing constantly, bringing new priorities and challenges for an Organization.

- **Why?**
- **The challenges**
- **The penetration seal solution**





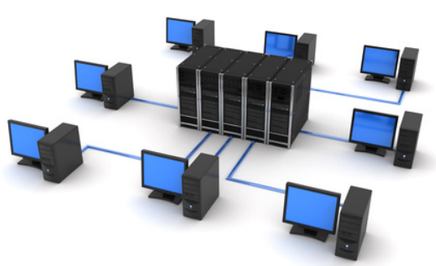
NEEDS and REQUIREMENTS FOR DATA and LOW VOLTAGE CABLING

Cable Moves, Adds and Changes

Working environments are changing constantly, bringing new priorities and challenges for an Organization.

Why?

- Increase Capacity
- Support New Equipment
- Support New Applications
- Replacing Obsolete Cabling Infrastructure



NEEDS and REQUIREMENTS FOR DATA and LOW VOLTAGE CABLING

Cable Moves, Adds and Changes

Working environments are changing constantly, bringing new priorities and challenges for an Organization.

Challenges

- Disruption to Operation
- Downtime in Productivity
- Inconvenience to Tenants
- Risk of compromising existing Infrastructure

NEEDS and REQUIREMENTS FOR DATA and LOW VOLTAGE CABLING

Working environments are changing constantly, bringing new priorities an challenges for an Organization.

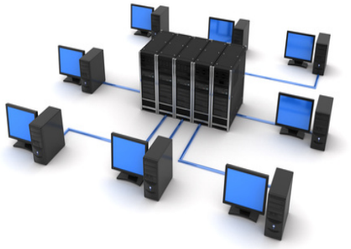
The Cable Penetration Seal Solution

NEEDS and REQUIREMENTS

for the network

No downtime acceptable.

The system should be continuously operational



How to chose the right cable penetration seal system?

The penetration seal system shall be :

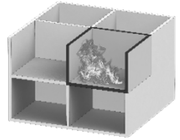
- Always fire rated
- Cable friendly
- A modular solution for flexibility
- Certified for all types of constructions and cables

CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

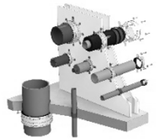
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

Code and testing methods



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements

Hidden costs and risks of penetration seals

EZ-Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

HIDDEN COSTS and RISKS

WHAT ARE THE REAL COSTS OF CABLE PENETRATION SEALS ?

VISIBLE COSTS

of cable penetration seals

Product price

Installation cost

HIDDEN COSTS and RISKS

of cable penetration seals

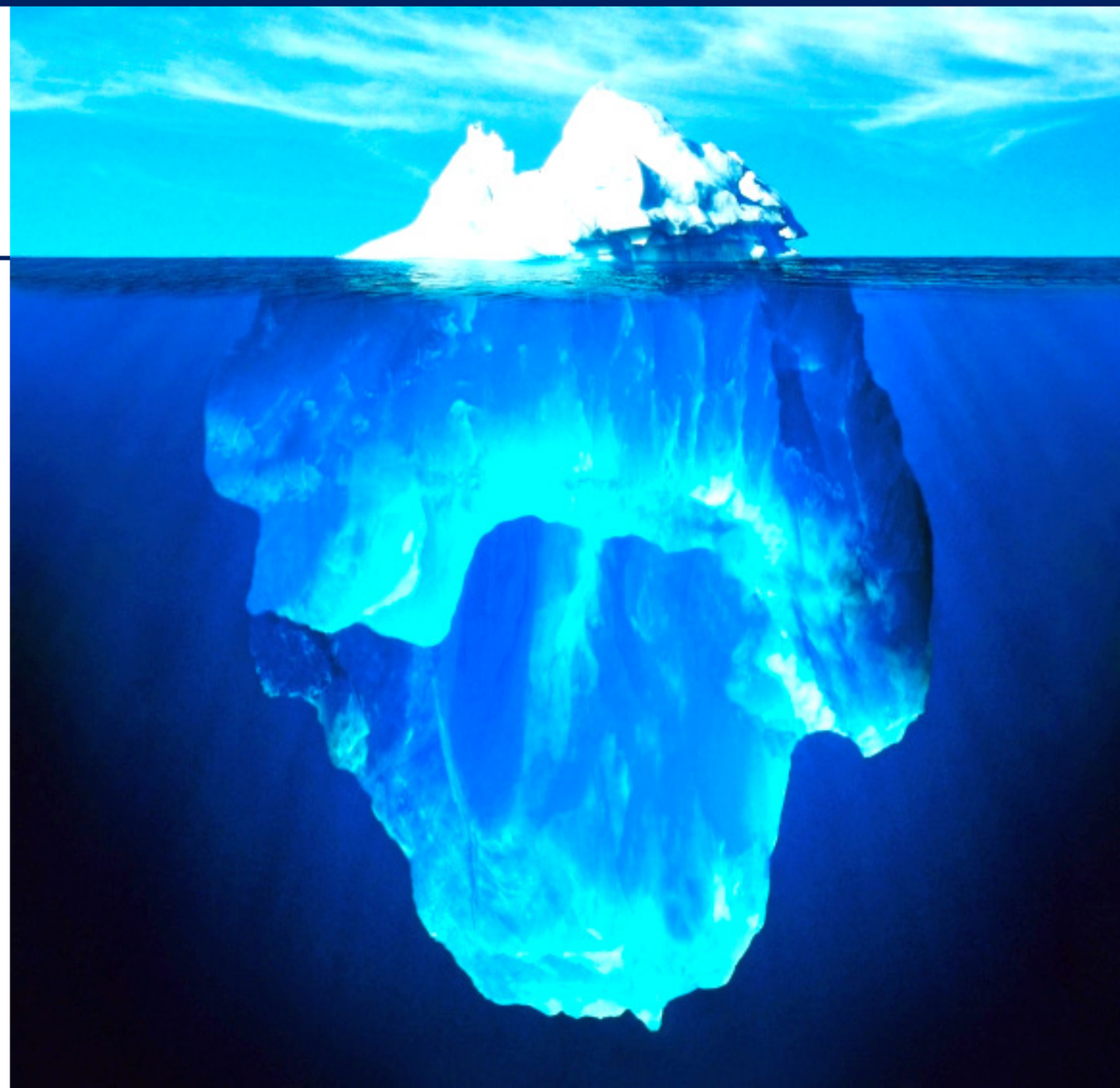
Downtime

Cable damages

Non-compliance risk

Handling cost

Improper installation risk

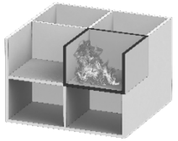


CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection

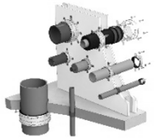
Containment / Detection / Suppression



Fire containment

Passive Fire Protection

CE **Code and testing methods**



Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

Needs and requirements

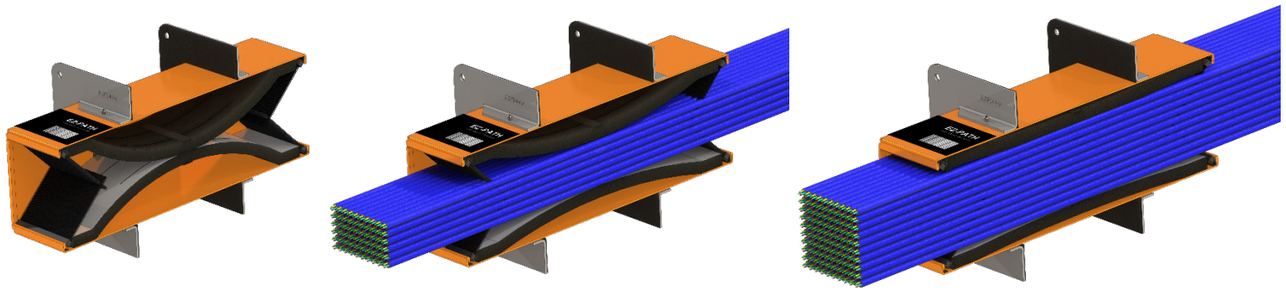
Hidden costs and risks

EZ-Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

EZ-Path®

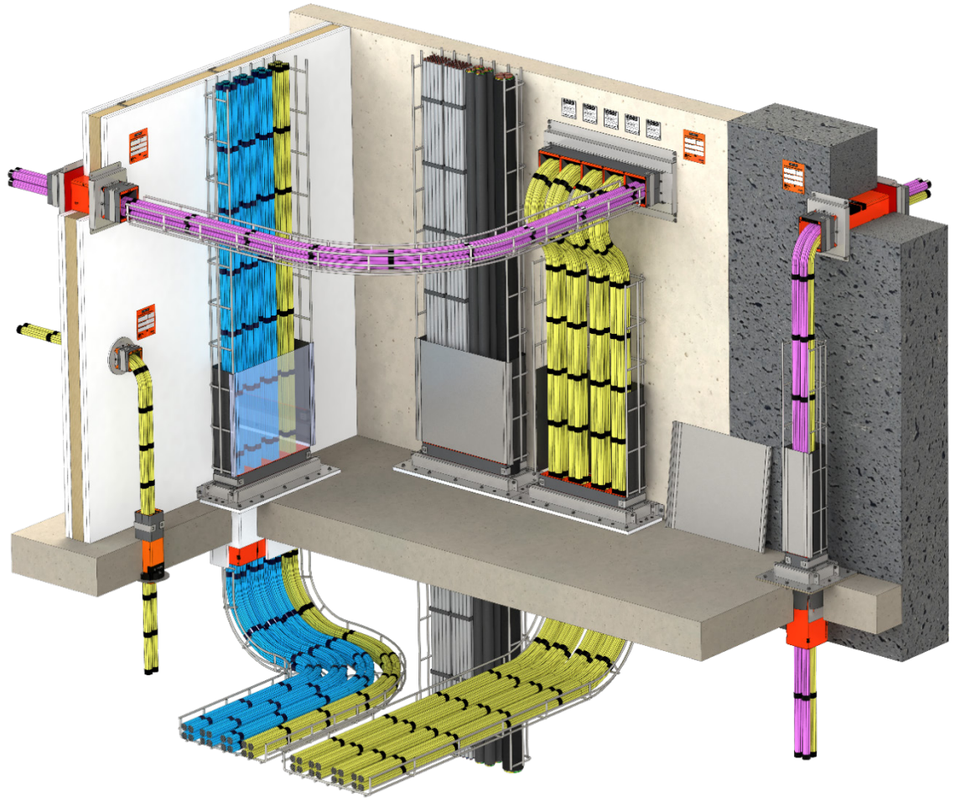


Cable Management

Cable Protection

24/7

Fire Stopping



EZ-Path is a self sealing cable penetration system engineered as a fire rated pathway.

EZ-Path does not require any handling for fire protection and is always ready for inspection.

EZ-Path can accommodate by design any cable changes.

EZ-Path is built with two intumescent flexible pads which adapt automatically to accommodate the cables. When exposed to heat, the pads expand to completely seal the device from smoke and flames up to 4 hours.

EZ-Path®

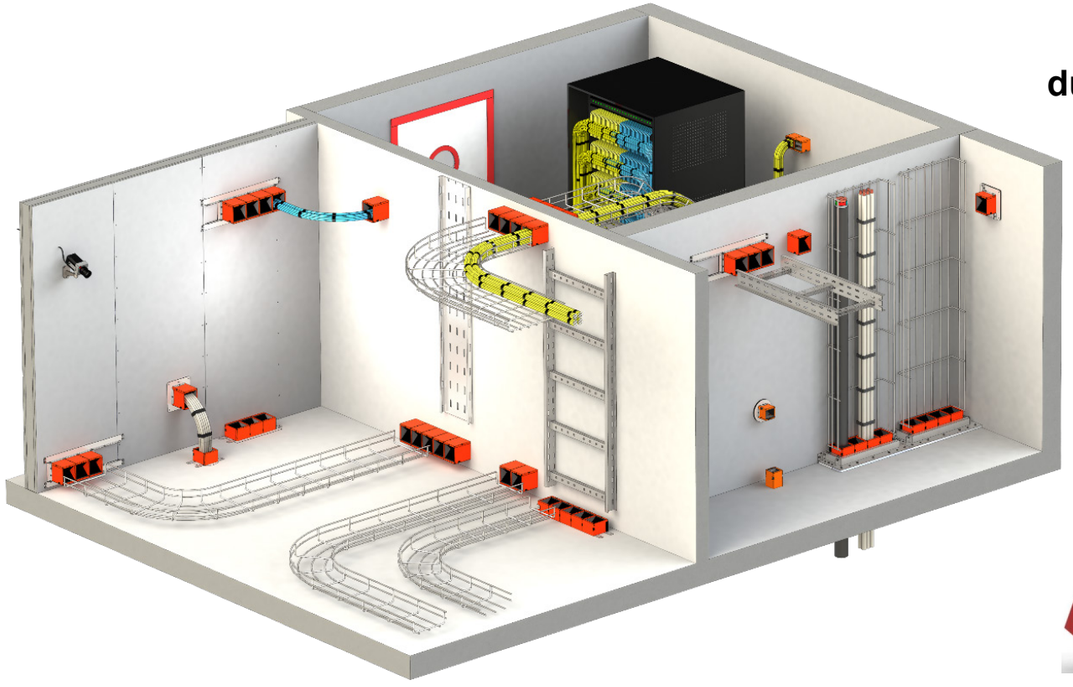
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

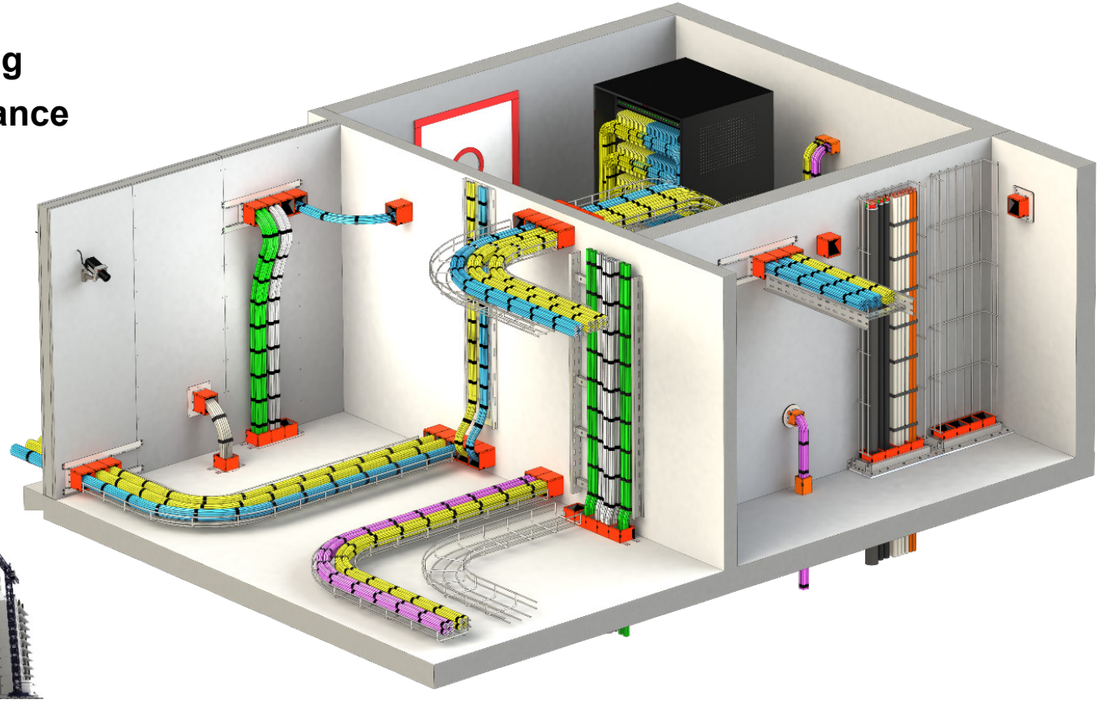
BICSI

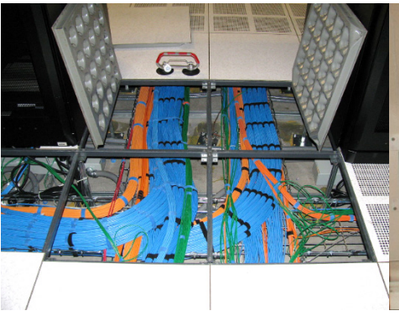
24/7

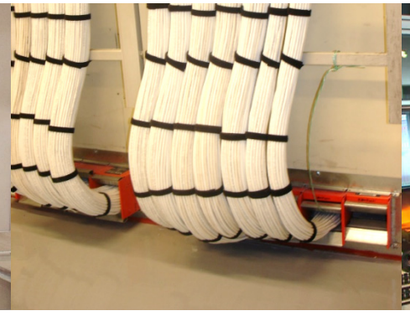
Fire Stopping

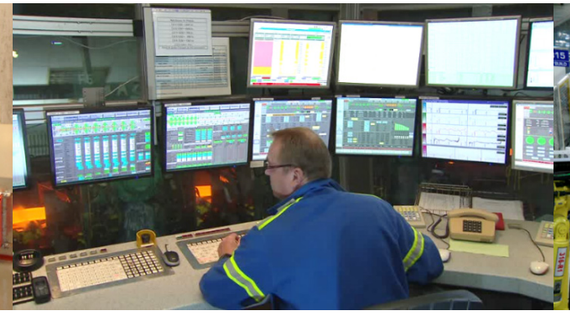
No firestop handling
during cable maintenance

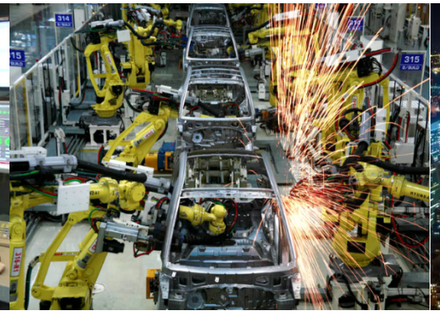












EZ-Path®

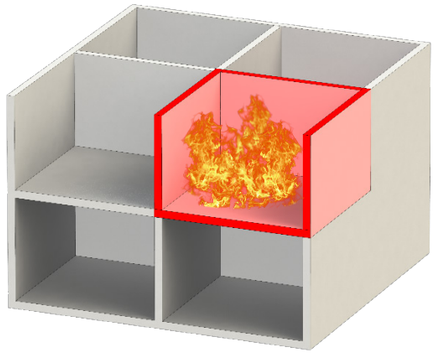
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

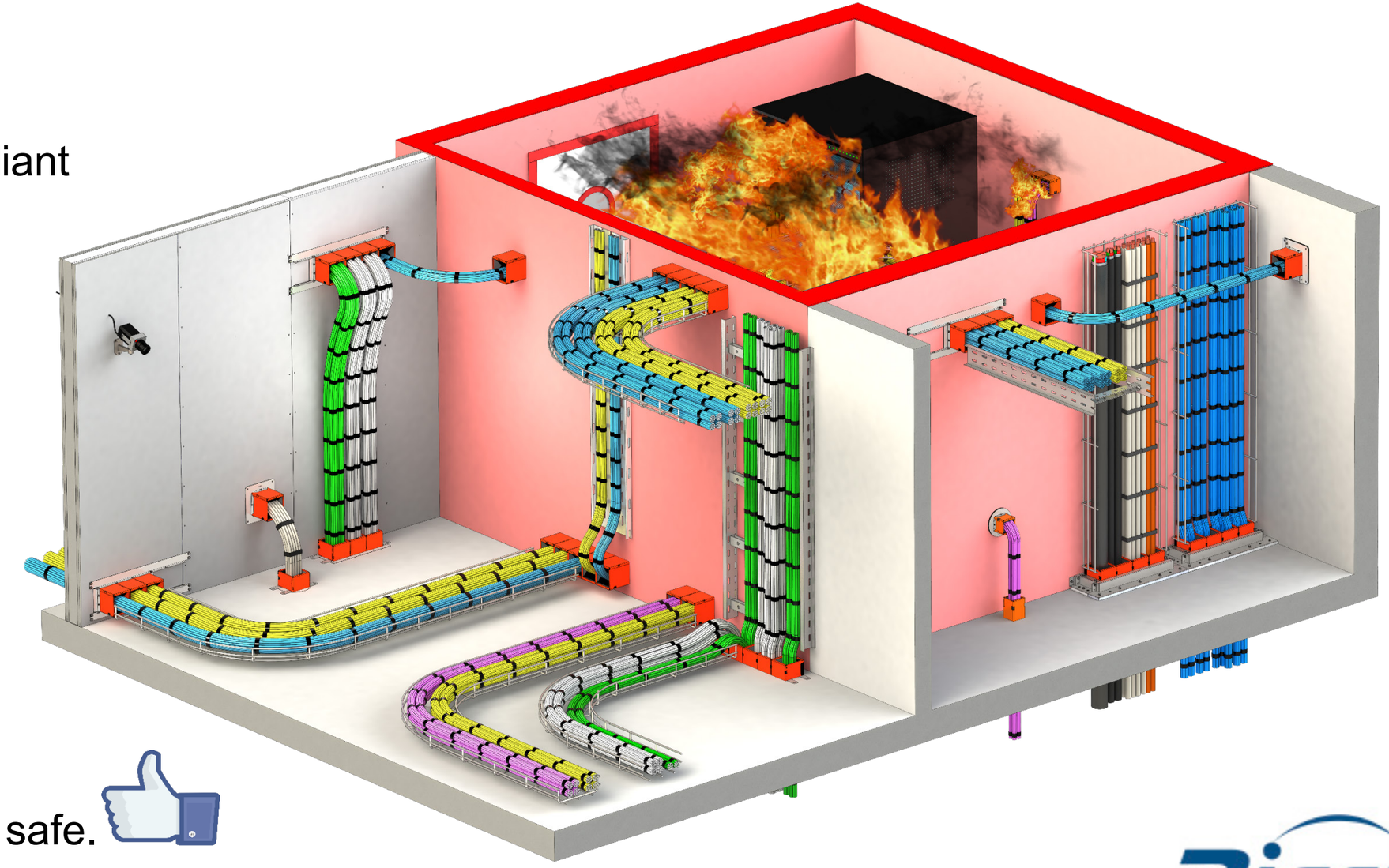
Bicsi

EZ-Path is always compliant

24/7

Fire Stopping





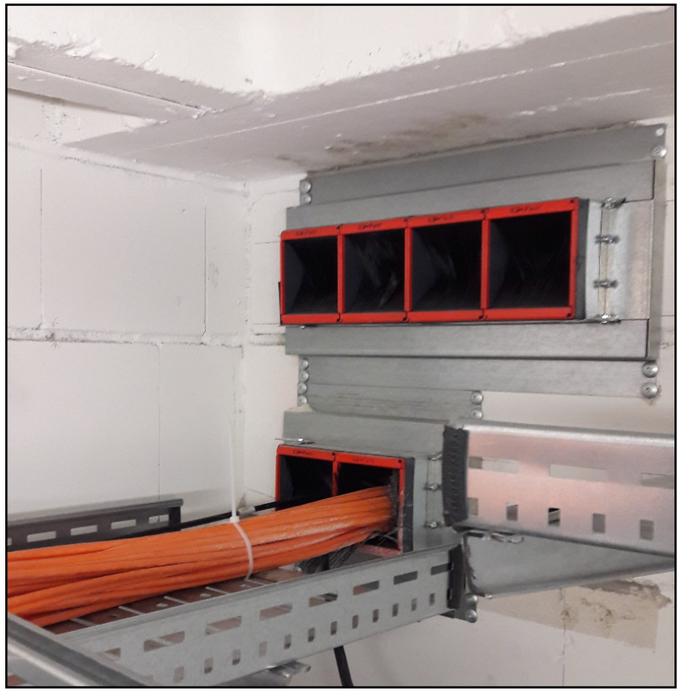
The fire is contained

The rest of the building is safe.

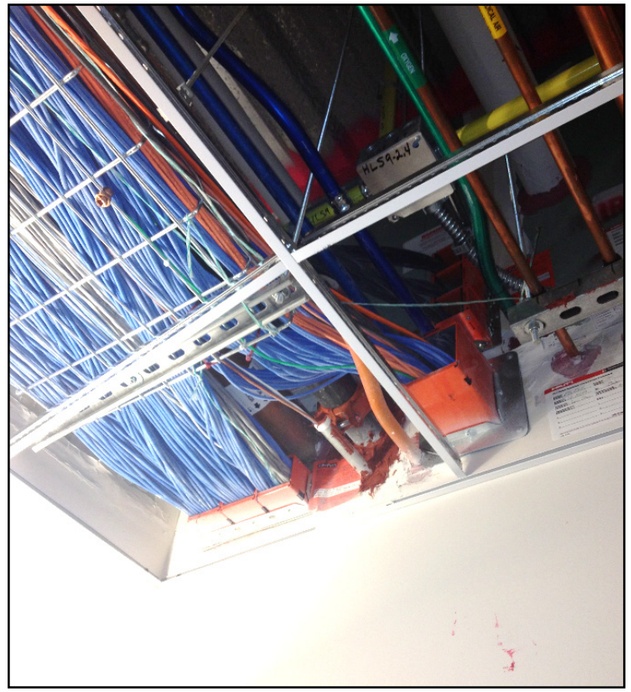
Bicsi

EZ Path®

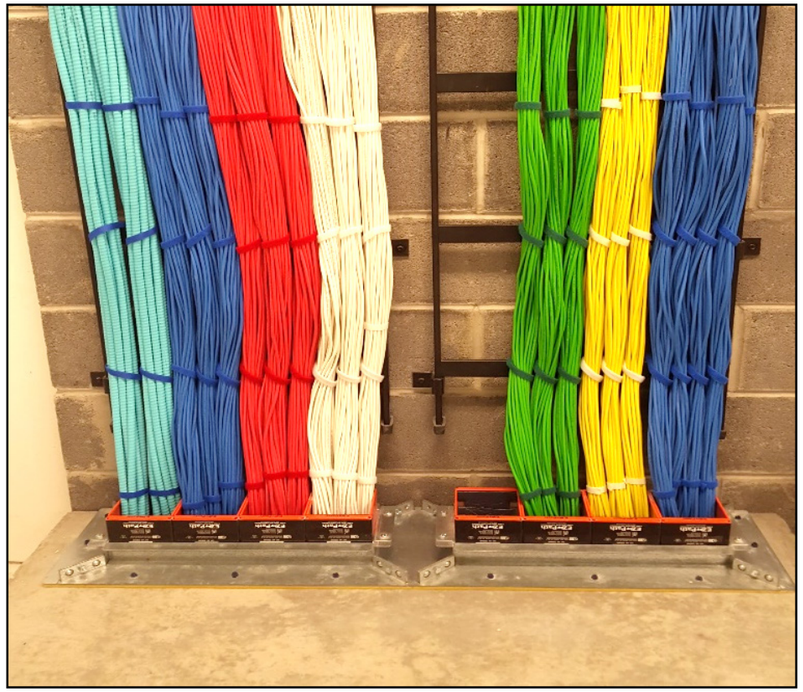
THE FIRE RATED PATHWAY DESIGNED FOR CABLING



Wall application



Limited access area



Floor application

Bicsi

Where access is limited

Lower ladder

Above the ceiling

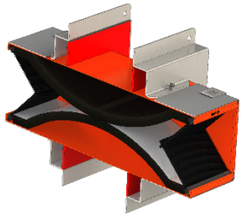
Below raised floor

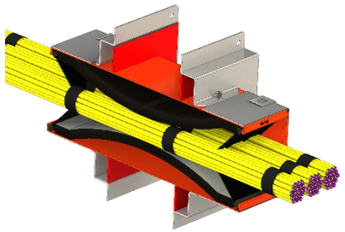
EZ-Path®

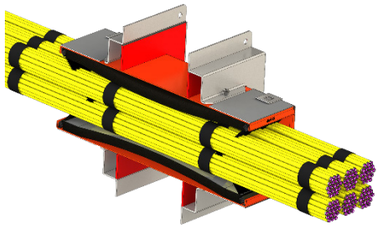
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

Bicsi

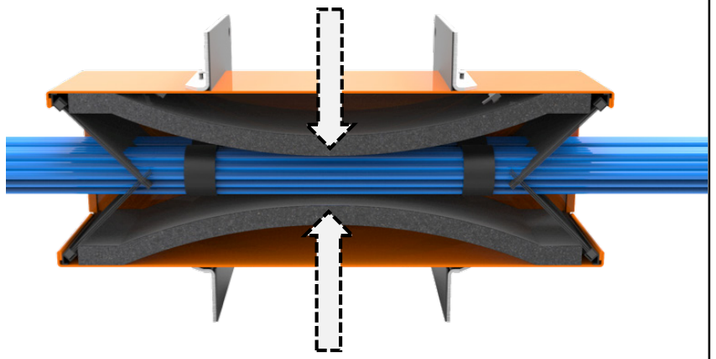
Certified and Approved





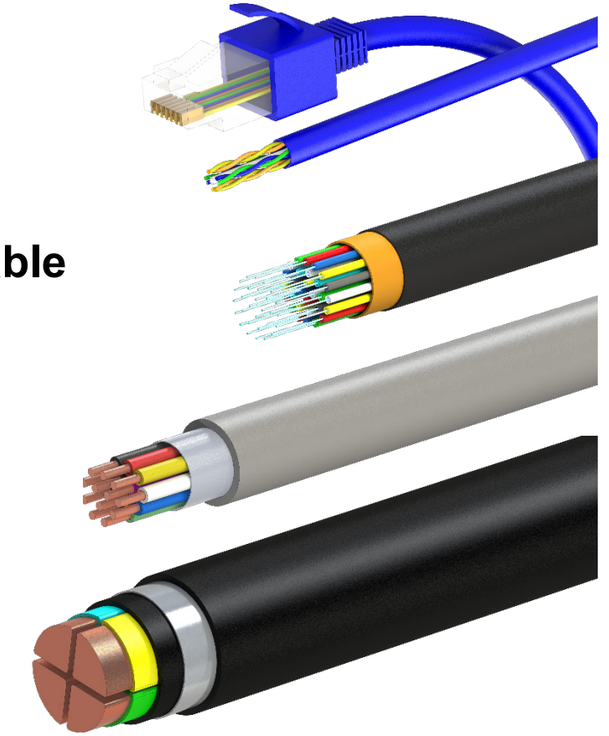


Up to 100% cable loading



For all types of cable

- Data
- Fiber optic
- Control
- Power



No action is needed to activate the internal sealing mechanism. Top and bottom intumescent pads adjust themselves automatically to ensure contact onto surface of cables

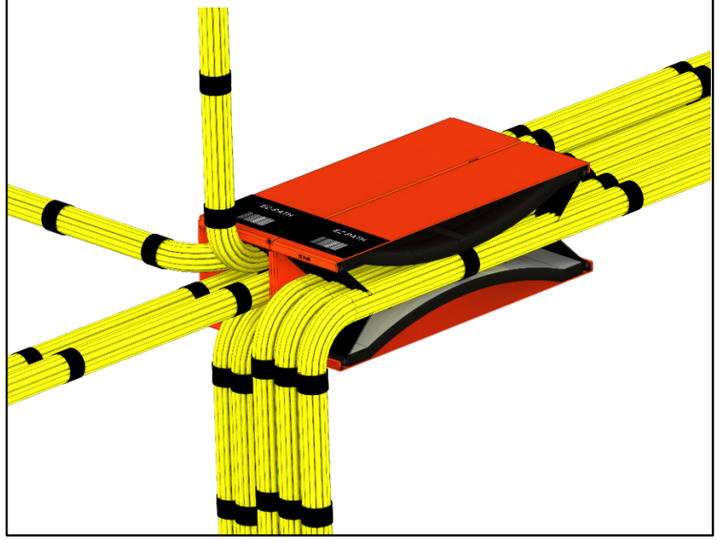
Bicsi

EZ-Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

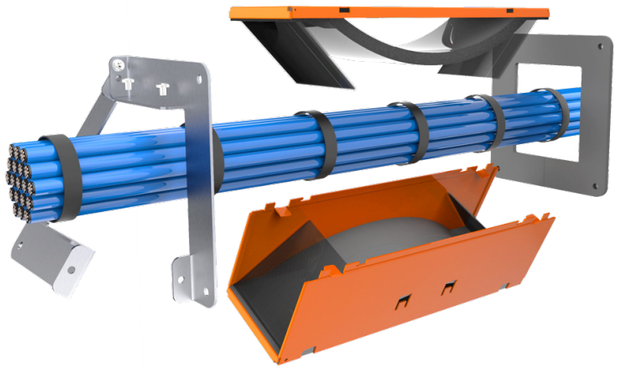
No sharp edge

Cable friendly pathway

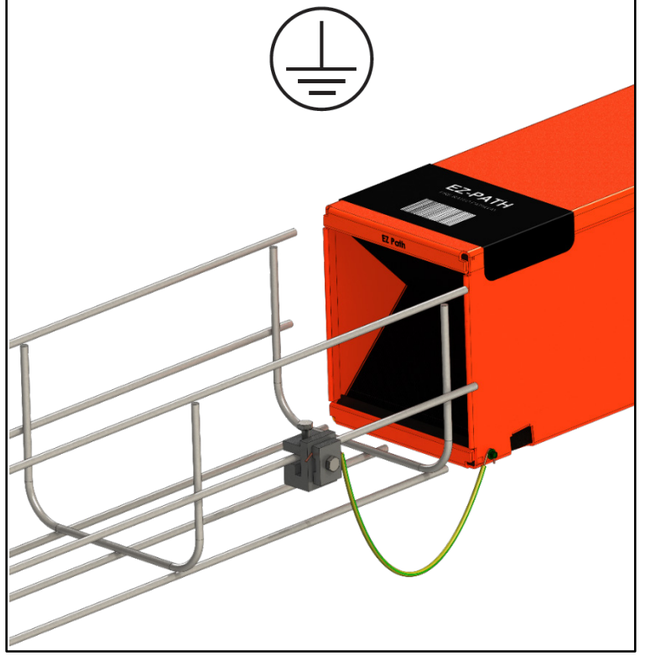


Retrofit possibly for existing cables

Device can be opened



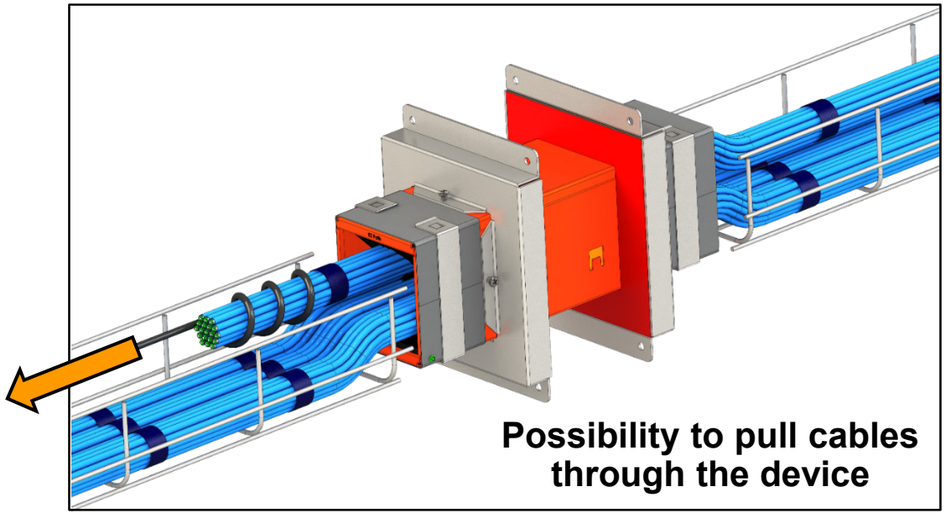
Earth ground feature



Bicsi

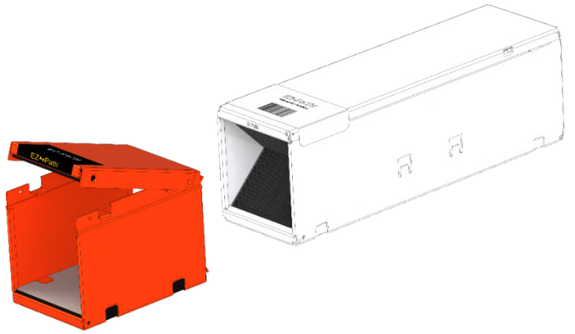
EZ-Path®

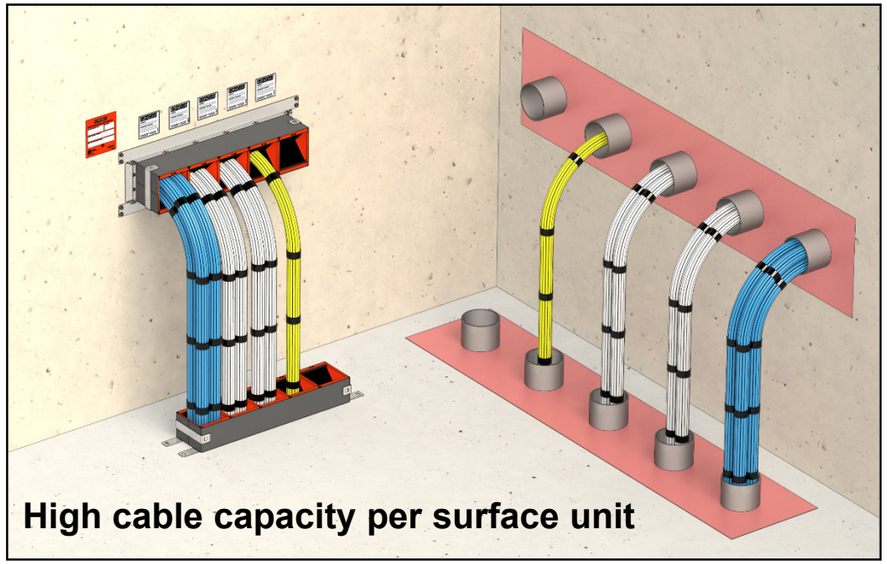
THE FIRE RATED PATHWAY DESIGNED FOR CABLING



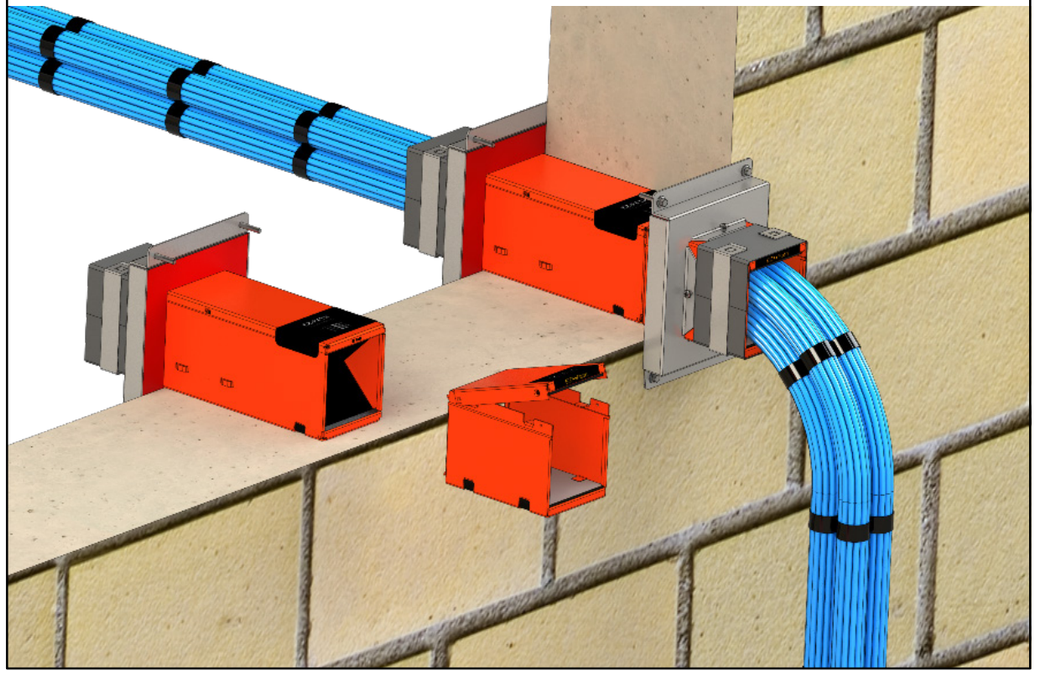
Possibility to pull cables through the device

Extension feature for thick walls





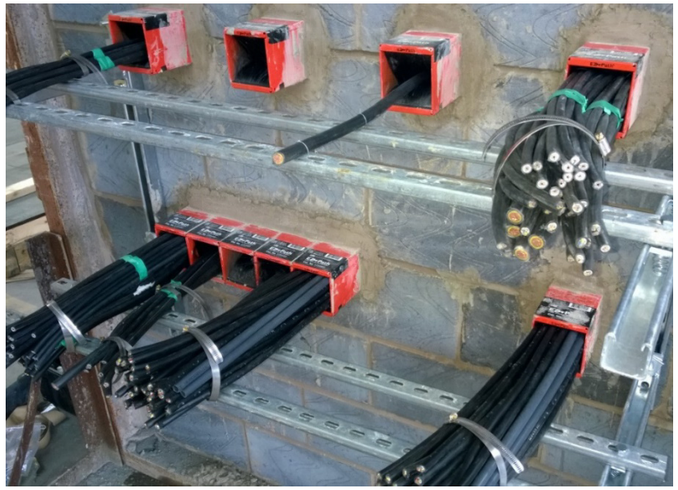
High cable capacity per surface unit



Bicsi

EZ Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING



Tested and Certified

Reaction to Fire : EN13501-1	Class E	CE
Fire Resistance Test : EN1366-3	Up to 4 hours	
Classification : EN1301-2	Up to EI120	ETA 13 / 0887

UL Exova | Deutsches Institut für Bautechnik DIBt

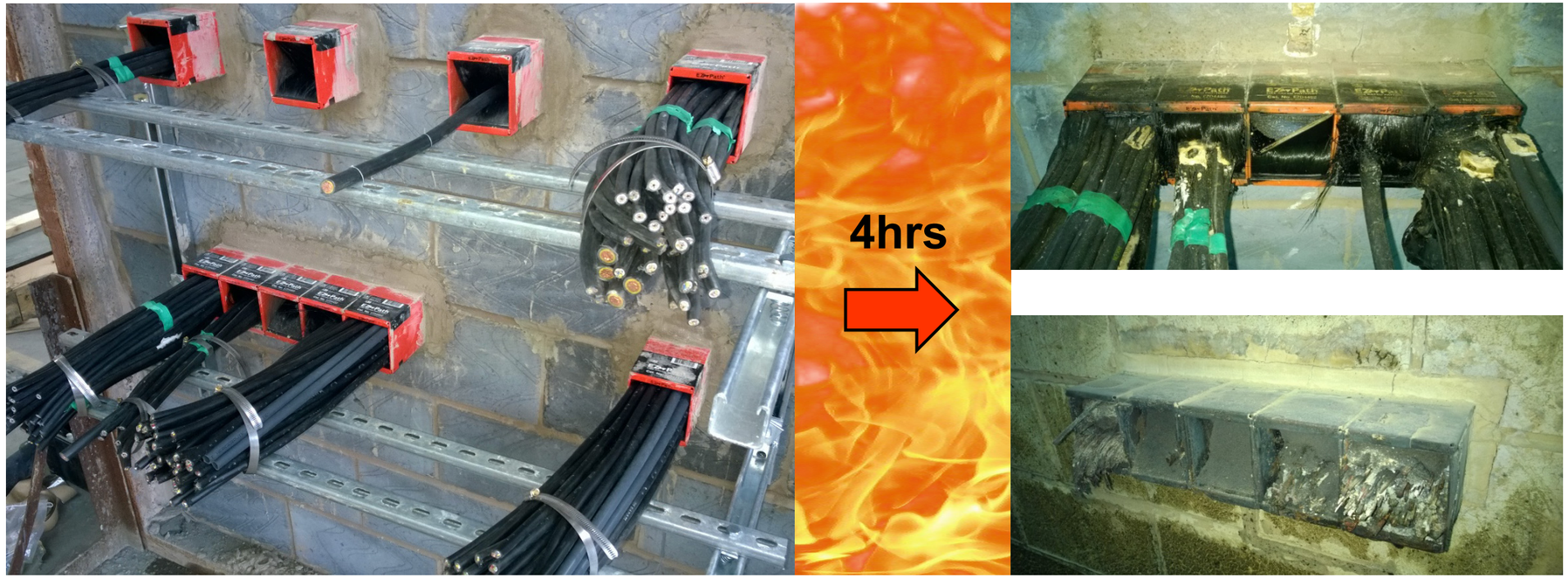
VKF AEAI Efectis TÜV SÜD CTP

Bicsi

EZ-Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

Up to 4 hours fire resistance



Before fire exposure

EZ-Path Series 44+ grouted

After **240** minutes fire exposure

non-exposed and exposed sides

Bicsi

EZ Path®

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

Up to 4 hours fire exposure

Non exposed side not damage

Classified E240 per the EN13501-2

Bicsi

HIDDEN COSTS AND RISKS

WHAT IS THE REAL COST OF EZ-PATH ?

VISIBLE COSTS

Only for EZ-Path

Product price

Installation cost

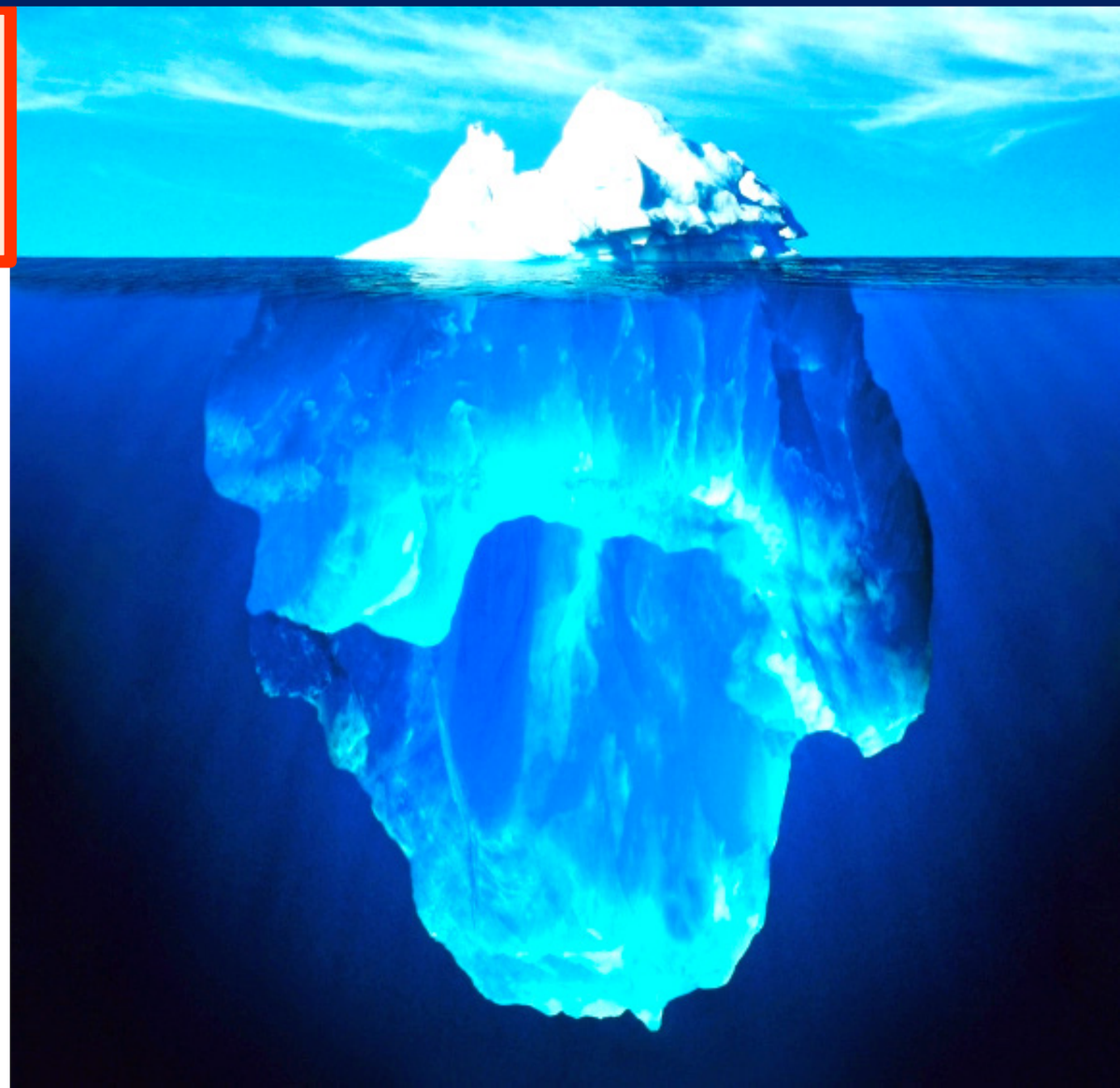
HIDDEN COSTS, RISKS a

WITH EZ-PATH, NO ADDITIONAL HIDDEN COSTS and RISKS

compliance risk

Handling cost

Improper installation risk



THE FIRE RATED PATHWAY DESIGNED FOR CABLING

EZ Path®

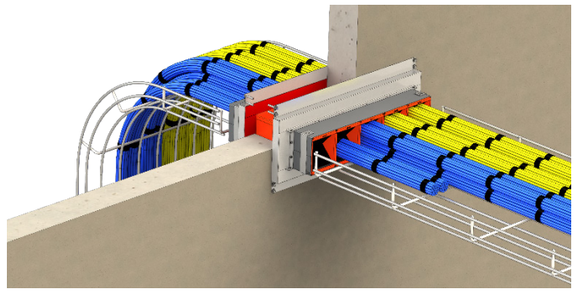
Fire Stopping

Cable Management

Cable Protection

- No firestop handling ✓
- Compliant for inspection ✓
- No additional cost and risk ✓
- Ready for cable management ✓

24/7



CABLE PENETRATION SEAL

Fire Stopping

Firestop handling is required after every cable change

Inspection may reject the penetration seal compliance

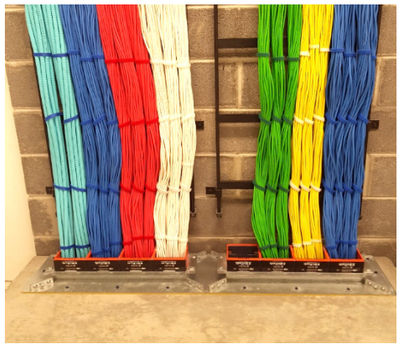
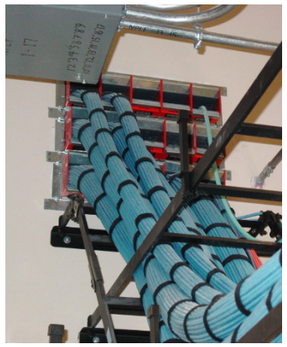
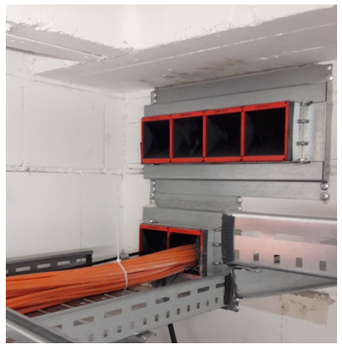
€

Additional costs involved by cable changes

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

EZ-Path®

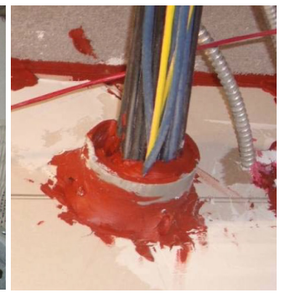
EZ-Path is always ready for fire safety inspection


CABLE PENETRATION SEAL

The system may not be fire safety compliant






Advantages of EZ-Path®

CABLE FRIENDLY

Cable pathway designed for cable changes, adds and moves.

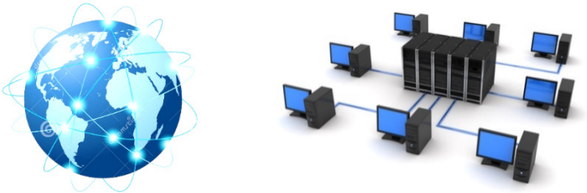
NO FIRESTOP HANDLING

Ready for cable maintenance and inspection

NO MORE COST AND LIABILITY RISK

No hidden costs, risks for this cable penetration seal. No worry anymore about fire protection

You can focus on cable management



PROJECT EARLY INTEGRATION

EZ-Path provides fire protection and cable management solution at an early stage

MECHANICAL FINISHED PRODUCT

No more sealant and coating to apply