

HUBER+SUHNER



FIA

FIBREOPTIC INDUSTRY ASSOCIATION

Connector evolution

Jonathan Lewis, FIA Standards Director

Communicate



Social networks

Internet of things

Big data

Industry 4.0

Smart devices

Real digital



Super-safe society

Industry 4.0

Megacities

Big data

Feel safe

Be mobile



Wearables

Mobile commerce

Third places

E-mobility

Autonomous driving



E-mobility

Open Innovation

Post-carbon society

Third places

Smart cities

Act sustainably

Communicate

Social
networks

Big
data

Internet
of things

Industry

Smart

Be mobile

Wearables

Mobile
commerce

Third
places

...what is the impact of these megatrends?

Feel safe

Super-
safe
society

Industry
4.0

Megacities

Big
data

Act sustainably

E-mobility

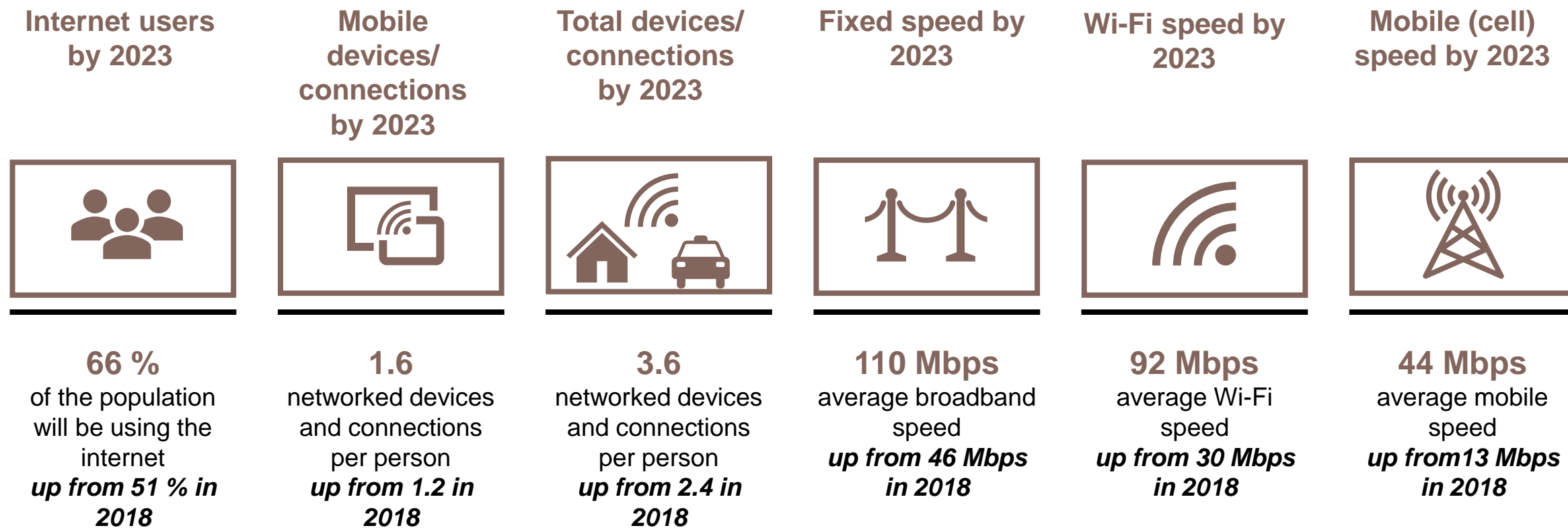
Open I
nnovation

Post-
carbon
society

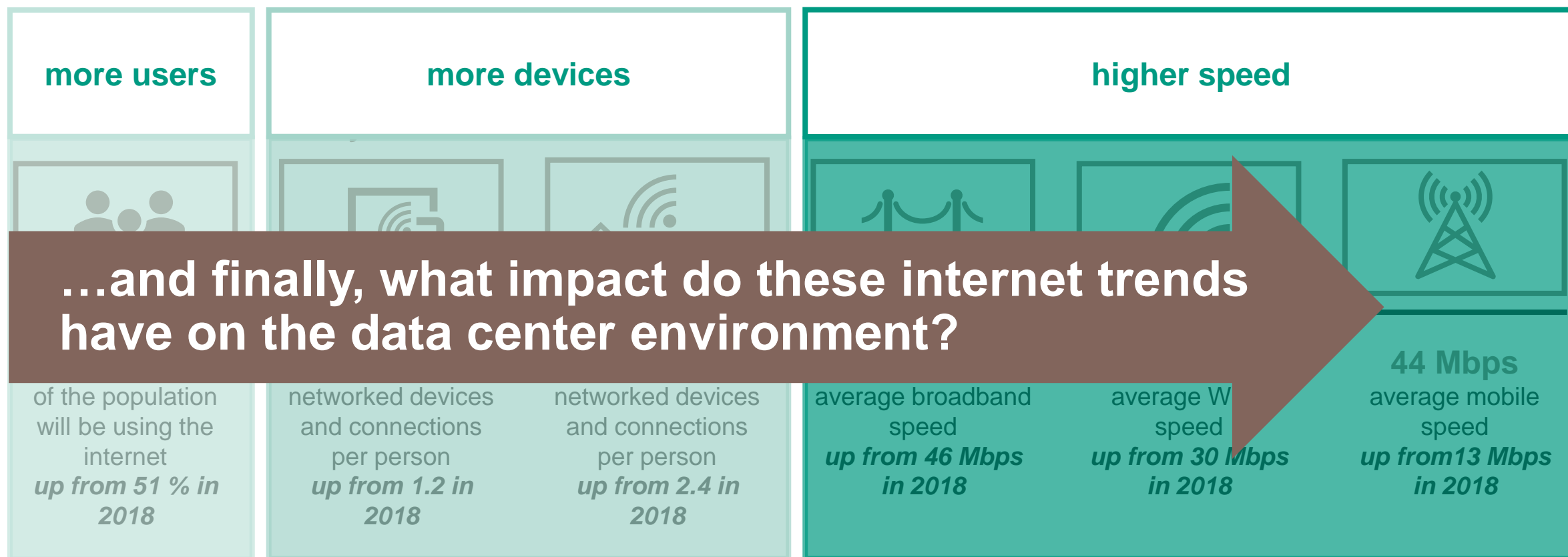
Third
places

Smart
cities

Impact of megatrends



Impact of megatrends



What is the impact to the data center world?



Higher bandwidth, lower latency, more dense
denser and smaller systems, new technologies (400/800 GbE), ribbon, VSFF



Scalable architecture, full modularization
modular FMS/CS system, flexible expansion, pay-/rent-as-you-grow



Full digitalization and AI-enablement
AIM, DCIM – being more intelligent, SDN-enabled, automatic monitoring



Closer-to-the-edge
edge-to-cloud-as-a-service (EtCaaS), Edge DCs, CORD DCs



Sustainable and green
reduce waste/power consumption, on-board-optics (OBO)



Quick deployment
same day/week delivery, production automatization

What is the impact to the data center world?



Higher bandwidth, lower latency, denser

denser and smaller systems, new technologies (400/800 GbE), ribbon, VSFF



..more bandwidth & higher density?

system, flexible expansion, pay-/rent-as-you-grow

enabled, automatic monitoring

(EtCaaS), Edge DCs, CORD DCs

consumption, board-optics (OBO)

Quick deployment
same day/week delivery, production automatization

More bandwidth & higher density

Density

more fibers in same or less space

LC connector (144f)

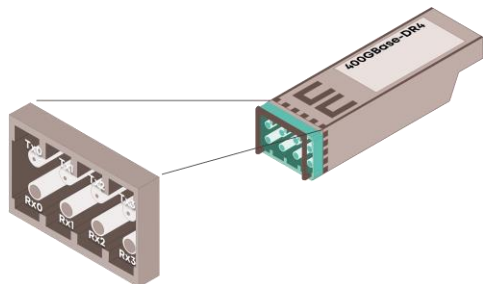


VSFF connector (384f)

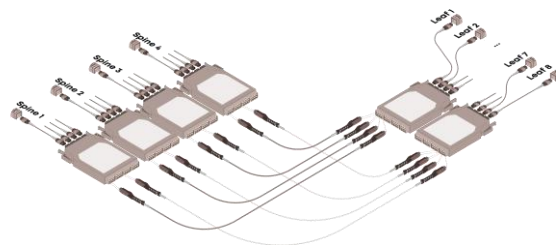


Bandwidth

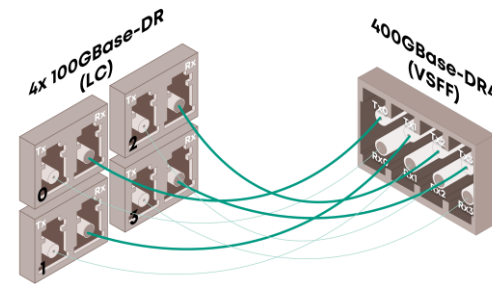
400G/800G



Spine/Leaf



Breakout

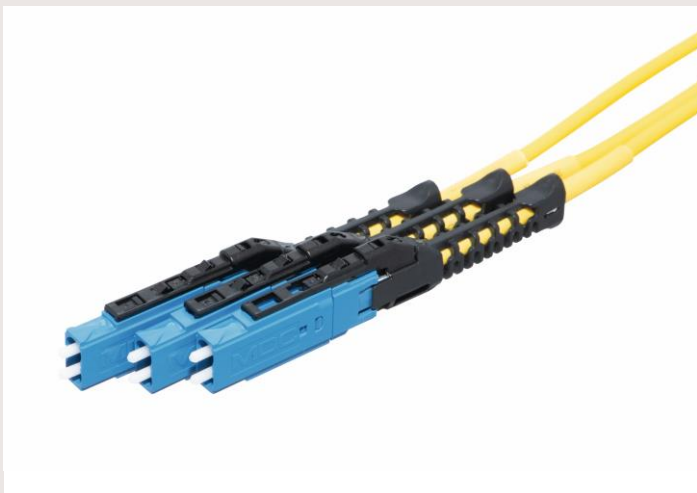


Drivers for VSFF

Introducing VSFF

New VSFF connectors

MDC USCONEC



High density
→ 3 x LC

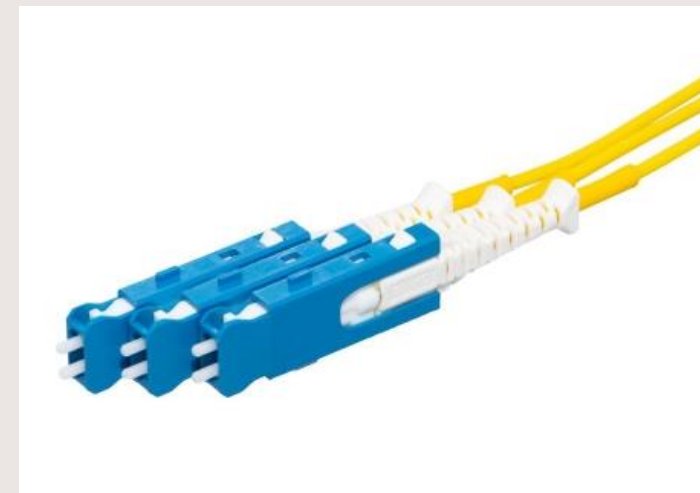
Easy
cleaning

Better
performance
with ceramic
ferrule

Ceramic
ferrule,
not sensitive
to dirt

Push-pull
over boot

SN SENKO



Rosenberger

COMMSCOPE®

tde®


sachsenkabel

CORNING

HUBER+SUHNER

COMMSCOPE®

tde®

CORNING

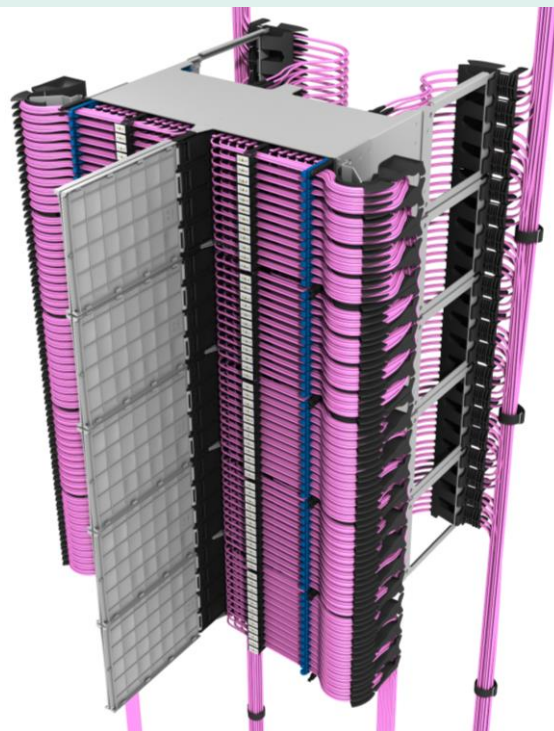
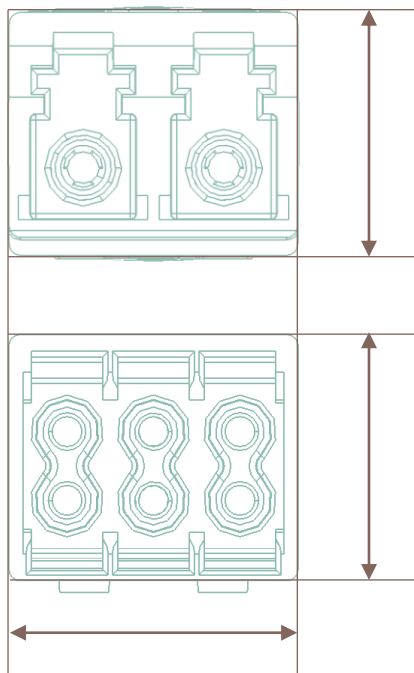
AFL

HUBER+SUHNER

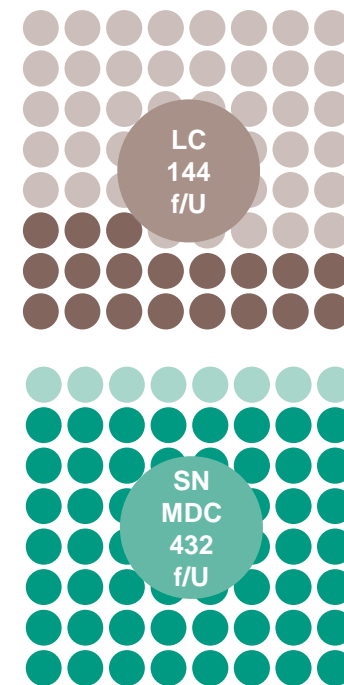
MDC and SN, next level density

IANOS

Market leading product with LC connectivity



Density comparison



Main benefits of MDC and SN



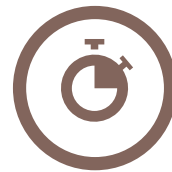
Maximise space

Up to **3 times** higher packing density can be achieved increasing the number of connection possibilities while enabling **easy patch cord over length** organisation. The high-density design **offers maximum scalability** to fulfil new requirements on demand.



High performance

The **safe and easy-to-clean ferrule technology** provides **smaller loss** of attenuation per connection **and better return loss** compared to MTP/MPO.



Save time

The efficient and effective handling provides **fast polarity changes** and **eliminates repeated cleaning** using plug-and-play pre-terminated connectivity functionality.



Easy to clean

The IL has a high resistance to dirt, is **easily cleaned** with **existing equipment** and does not require special training.



Save cost

3 times more links possible in the same area which offer the customer saving space and saving costs
→ **increase port per space.**



Connecting – today and beyond