



**HUAWEI**  
**ECO-CONNECT**  
**EUROPE 2020**

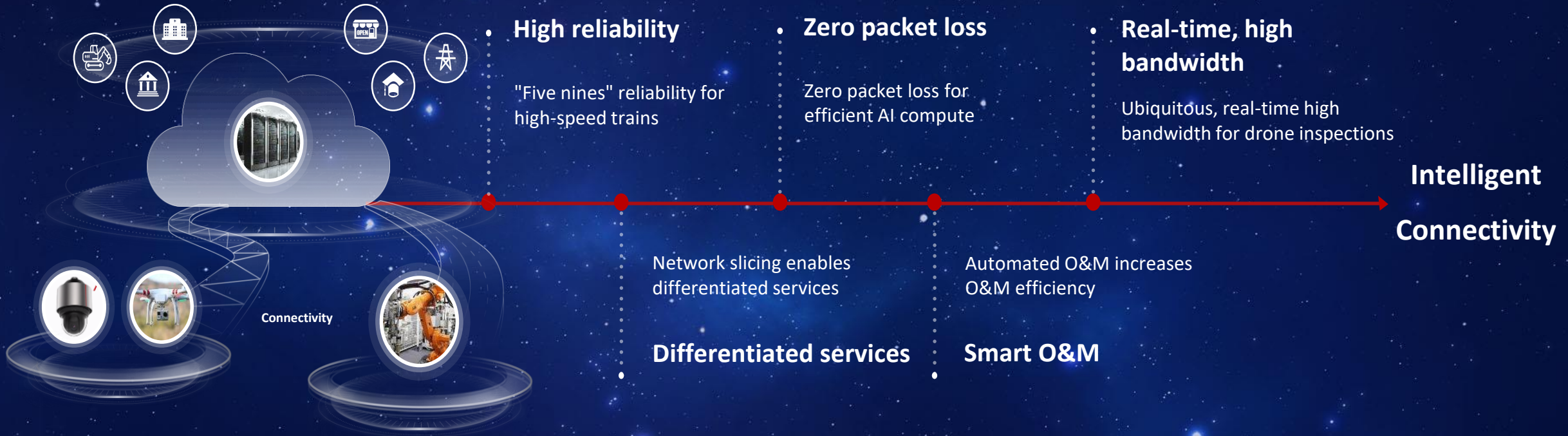
# Huawei All-Scenario Intelligent Connectivity

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Huawei Network AI CTO

2020.10

**20 YEARS**  
**OF CONNECTING**  
**EUROPE**

# Intelligent Twins call for new connectivity





# Huawei intelligent connectivity solutions for all scenarios



Industry scenarios



Transportation



Government



Energy



Finance

...

Network scenarios

Campus network

DCN

WAN

+

Security

Technology scenarios

Hyper-automation

Autonomous Driving Network (ADN)

IP + optical networks

5G

F5G

Wi-Fi 6

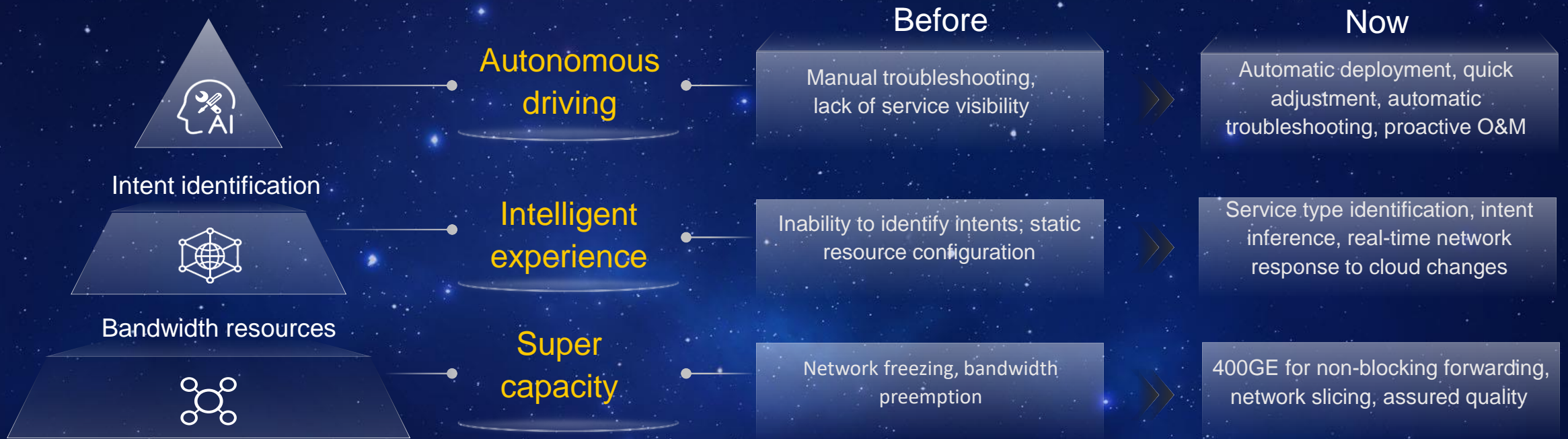
Ubiquitous gigabit

Deterministic experience



# Intelligent IP

# Key Feature of Intelligent IP Network

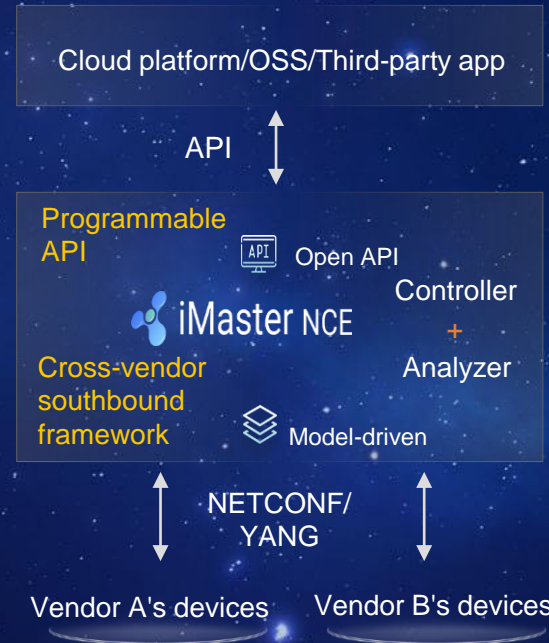
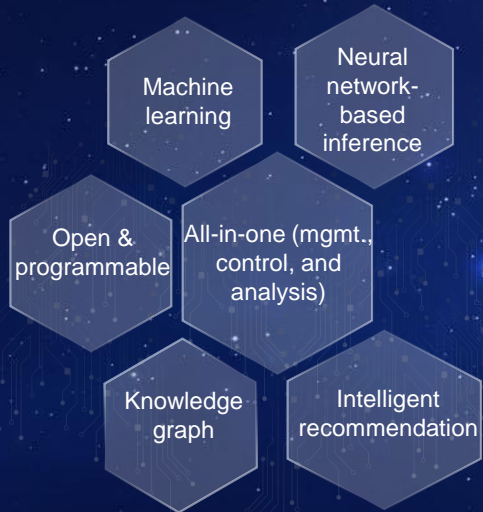




# Intelligent IP Network "Brain" : iMaster-NCE



Simplicity to Humans, Complexity to AI



**Northbound:** API programming facilitates easy customizations

**Digital twins:** network big data for early fault detection

**Southbound:** multi-vendor compatibility, saving investments



# CloudCampus 2.0: Harnessing Data Value via Intelligent Connectivity of Everything



**Better signals**



16T16R MIMO



Liquid-cooled AP



4-element antenna

**Fewer user complaints**



Neural network-based inference for precise application identification



Environment self-learning for radio calibration



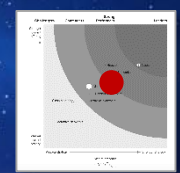
Intelligent recognition of terminal types



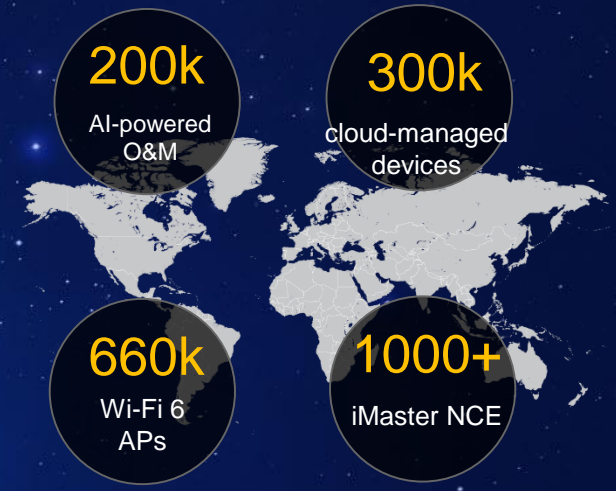
Gartner's "Customers' Choice" award



Frost & Sullivan's 'Global Campus Switch Enabling Technology Leadership' award and 'Recommended Products for New Infrastructure' award



"Strong Performer" in Forrester Wave™ Report for WLAN solutions





# CloudFabric 2.0: Unleashing the Power of Computing and Storage

## Ultra-high-density 400GE



**768\*400G**

Industry's highest density

## Fault root-cause analysis via knowledge graphs



**Diagnosis rate of 98%**  
Issue playback

## Fiber Channel (FC) replacement



**87%** ↑

Better flash performance

## One network, multiple clouds



**3x** ↑

Multi-cloud interconnection efficiency



Named "SDN Leader" by Forrester



Gartner's "Customers' Choice" award



Frost & Sullivan's global technology leadership award

DCN revenue growth rate

**No. 1**

iMaster-NCE deployments

**1500+**

400GE and 10GE/25GE commercial port shipments

**No. 1**



# CloudWAN 2.0: Making Cloud Services at Fingertips



## E2E 400GE



Optical fibers saved by 75%

## Deterministic experience



Hard slicing, 100% bandwidth guarantee

## All-round defense



Cloud-network-security synergy, handling threats in seconds

## AI unsupervised learning



80k KPI-based detection and analysis  
Service-based AI

20+

Slicing-based networks

30+

SRv6 commercial sites

1<sup>st</sup>

400GE large-scale commercial use



Frost & Sullivan's technology leadership award



Interop Grand Prize



Largest contributor to SRv6 standards



# Intelligent Optix



# Ubiquitous Optical Connectivity Enables Digital Transformation



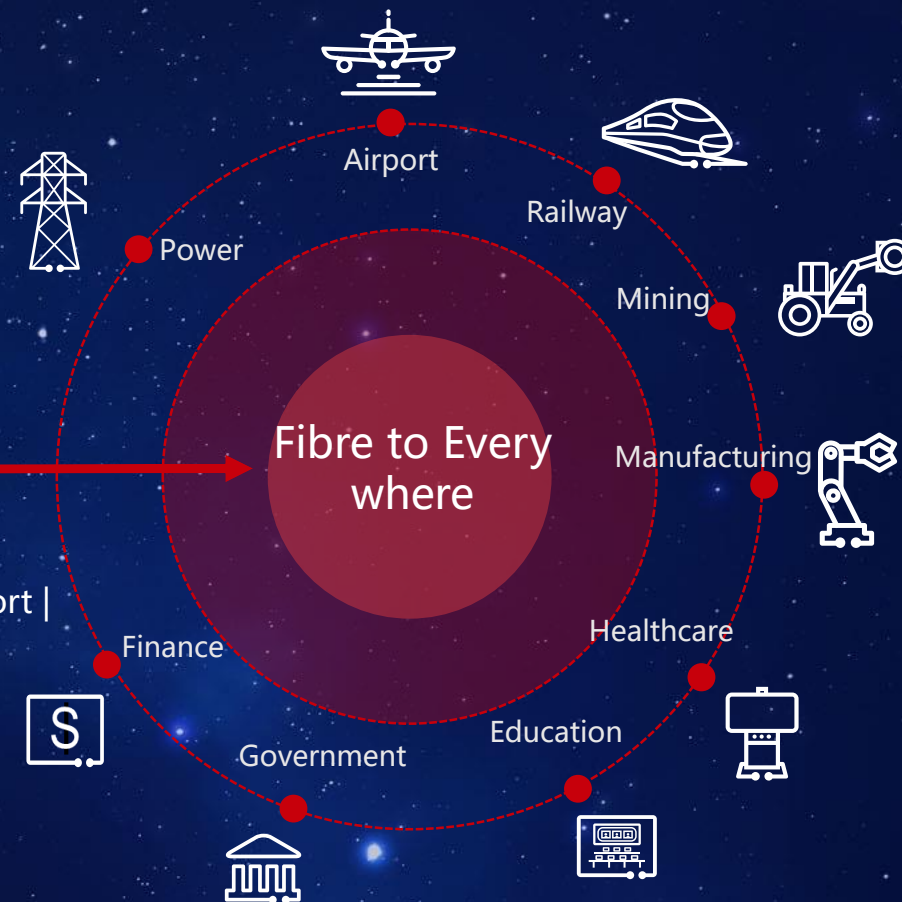
## F5G+3+X Strategy of Intelligent OptiX Network

**F5G** + **3** + **X**

Fifth generation of fixed network  
eFBB | FFC | GRE

Intelligent OptiX Network  
DC OptiX | Single OptiX | Campus OptiX

Industrial partner  
Finance | Energy | Transport |  
Government | ...





# DC OptiX +AI-enabled proactive O&M

## Subvert an idea

**50+**  
banks

**100+**  
ISPs

**50+**  
Governments

+ **AI**

Self-built DCI

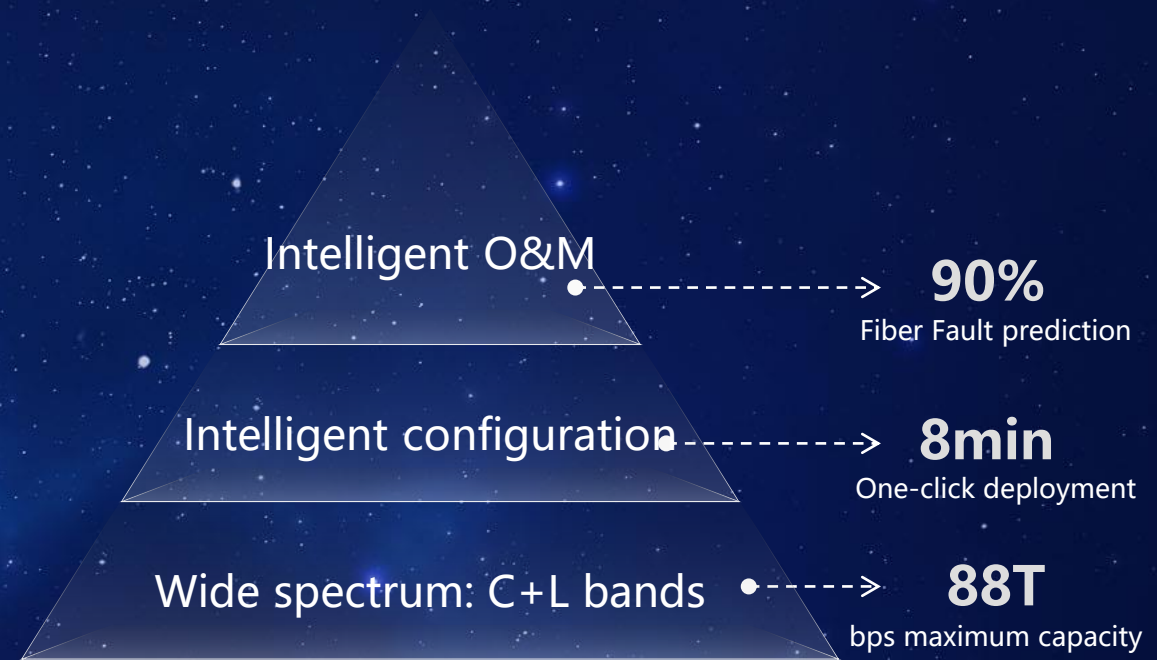


Super **C+L**

**DC OptiX**

One-click deployment

Simplified O&M





# Single OptiX Next-Gen Hard Pipe Technology Liquid OTN



# Campus OptiX Innovative and Green Campus Solution



## Light up a campus

### Campus OptiX

Ultra-broadband core | Energy efficiency | Converged O&M

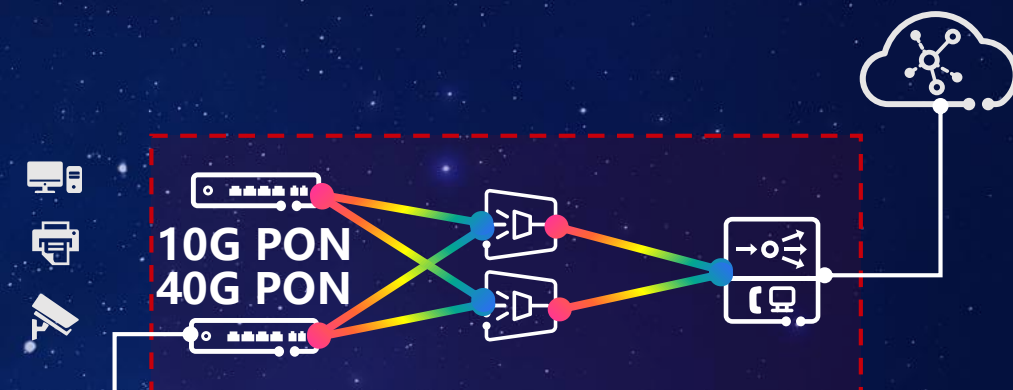
1500+ application cases

#### Enterprise campus

- College
- Hotel
- Hospital
- Airport

#### Industrial campus

- Power distribution
- Oil & gas
- Mining
- Manufacturing



**80%** ELV room space saved

**30%** Power consumption saved





# Connectivity never stops advancing



## 5G, IPv6+, F5G, Wi-Fi 6

1–10 Gbps access via any medium

10ms latency, "five nines" reliability, 1m connections per km<sup>2</sup>

## 6G, New IP, F6G, Wi-Fi 7

100 Gbps–1 Tbps anywhere, both on the ground and in the air

<1ms latency, "seven nines" reliability, 10m connections per km<sup>2</sup>

Next-generation connectivity



**HUAWEI**  
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**Thank you.**

**20 YEARS**  
**OF CONNECTING**  
**EUROPE**