



March 19, 2021

#### **National Stock Exchange of India Limited**

Exchange Plaza, 5<sup>th</sup> Floor, Plot No. C-1, G Block, Bandra Kurla Complex, Bandra (East) Mumbai - 400 051.

#### **BSE Limited**

Phirozee Jeejeebhoy Towers, Dalal Street, Mumbai - 400 001.

Sub: Intimation of Key Discussions in STLescope Tech Talk - Virtual Meet

Dear Sir/Madam,

Further to our intimation dated March 18, 2021 and pursuant to Regulation 30(6) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, we wish to inform you the key points discussed in the Virtual Tech Talk on 19<sup>th</sup> March 2021.

The presentation of the STLescope Tech Talk is attached herewith.

Kindly take the above on your record & acknowledge the receipt.

Thanking you,

Yours faithfully,

For Sterlite Technologies Limited

**Amit Deshpande** 

Company Secretary & Corporate General Counsel



# Network creation – opportunity landscape





1

Network creation – opportunity landscape

2

Role of network design

3

Converged edge network

4

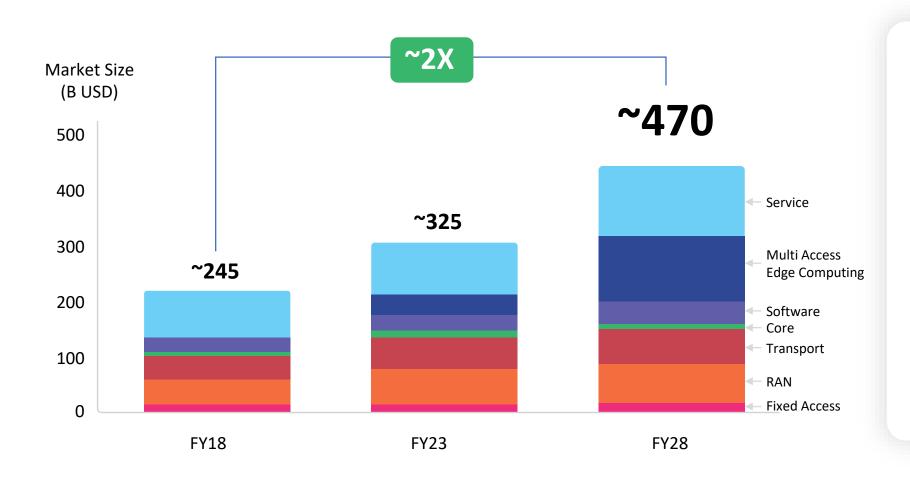
Key challenges in the current network design 5

STL way of designing a converged edge network

# **Network creation outlook is buoyant**

## Network spends are likely to double





# **Driving Factors**

- Global 5G roll-out over next
   8-10 years
- Growing FTTx penetration
- Transition to cloud and software defined networks
- Acceptance of Open standards

# And we are seeing acceleration in network investments



# **Network Creators are Investing Heavily...**



#### May 2020



China mobile to invest

\$14 Bn in building digital
infrastructure enabling faster
5G Connectivity

#### May 2020



BT to invest **\$12 Bn** in building 5G and next generation full fibre broadband across the UK

#### **March 2020**



Verizon to invest \$18.5 Bn to accelerate its 5G plans globally

#### June 2020



Airtel to double its fixed line penetration in next three years

# CLOUD COMPANIES

#### May 2020



Microsoft to invest
\$15 Bn to accelerate
digital transformation in
Italy including its first data
centre region

#### **March 2020**



Google to invest \$10 Bn in US offices and data centres in 2020

Sets aside a \$10 billion for India

## CITIZEN NETWORKS





**Indian Govt.** aims to provide **5,00,000 FTTH connections** by Sept 2020 (part of BharatNet)

FCC, US launched rural digital opportunity fund worth \$20 bn.

# ... and Attracting Billions



Jio platforms has raised **\$20.2 Bn** capital from global financial & strategic investors incl. Google & Facebook

#### **PE INVESTMENT**

#### Feb 2020



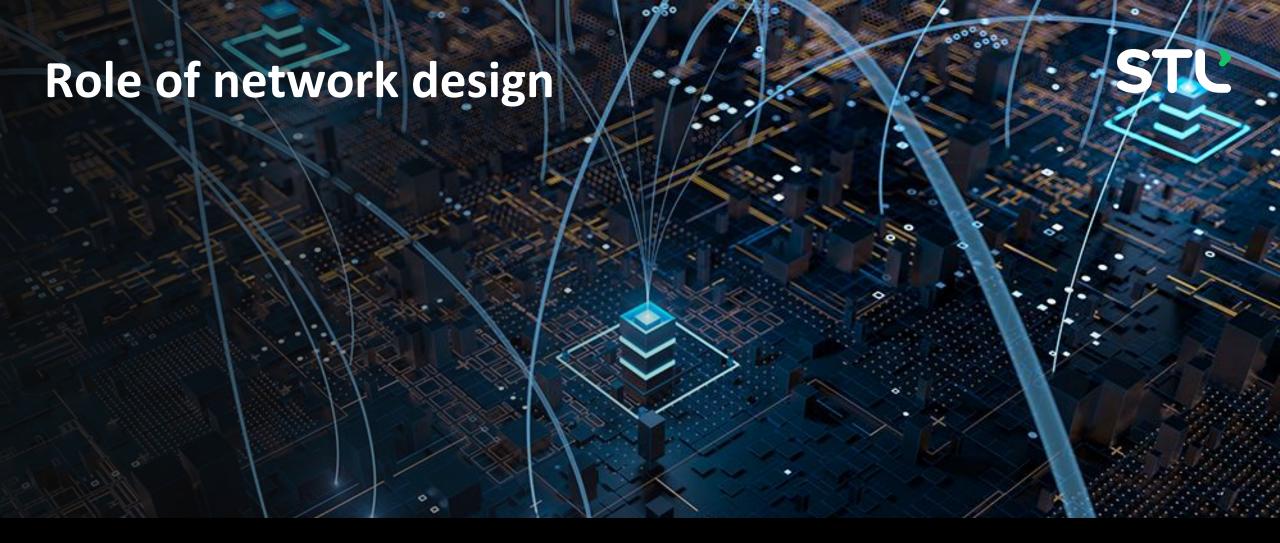
KKR in partnership with Telecom Italia to invest **\$7-8 Bn** in Open Fibre deal

#### Feb 2020



EQT in partnership with OMERS to invest \$4 Bn to acquire a fibre optic internet access company in Germany

Source: Telecom lead



1

Network creation – opportunity landscape

**2** Role of network design

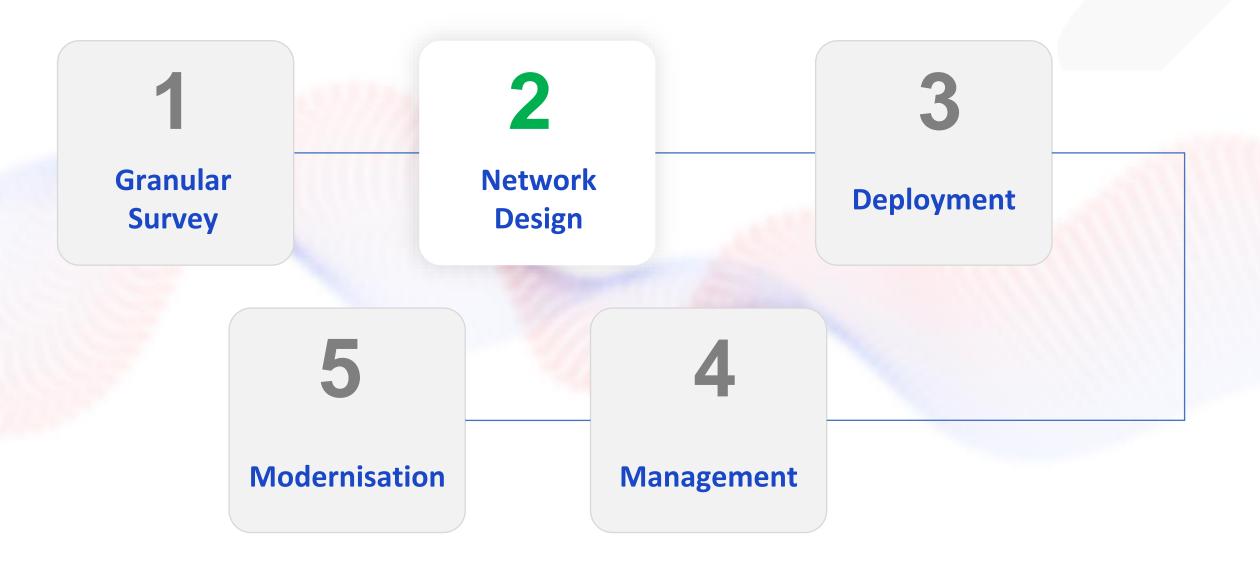
Converged edge network

Key challenges in the current network design STL way of designing a converged edge network

# Network design has a pivotal role to play

It is the most intellectual step in the network creation cycle







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# 5G use cases demand a Converged Edge Network















- Gigabytes in a second
- Immersive reality
- eSports



- Last-mile technology for fixed and mobile broadband access
- Tower Fiberisation
- High speed broadband for all

# **Massive Internet of Things**

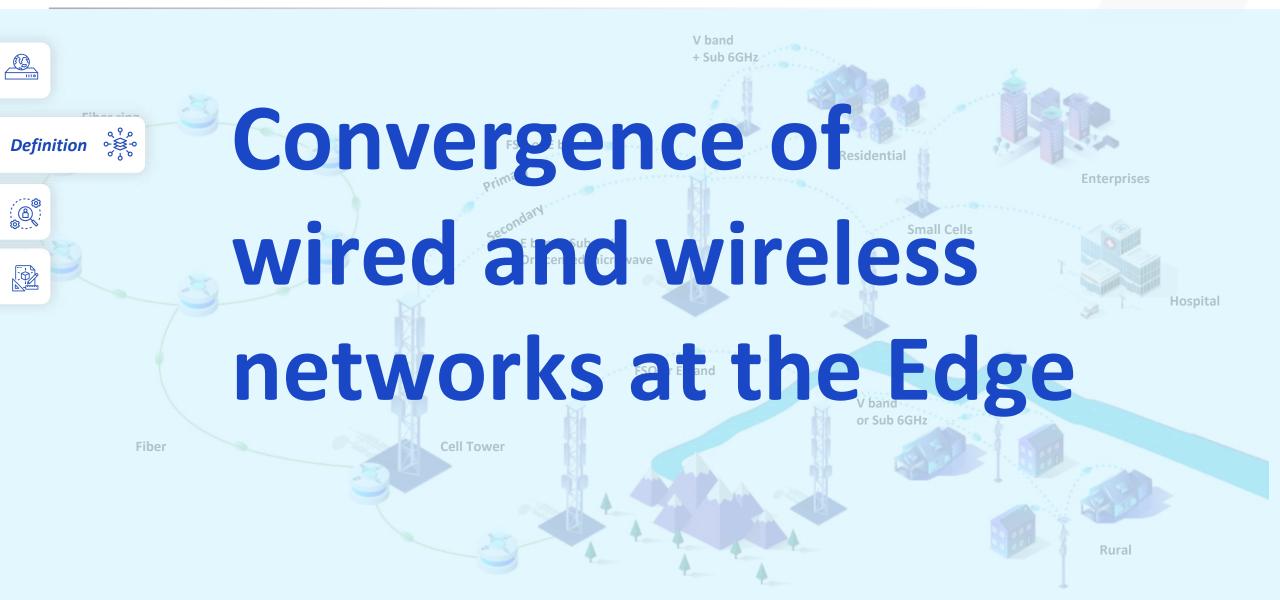
- Smart cities, homes and buildings
- Multiple vertical industries
- Wearables

# Ultra-reliable, low-latency communications

- Autonomous driving
- Industrial and vehicular automation
- Remote Surgery

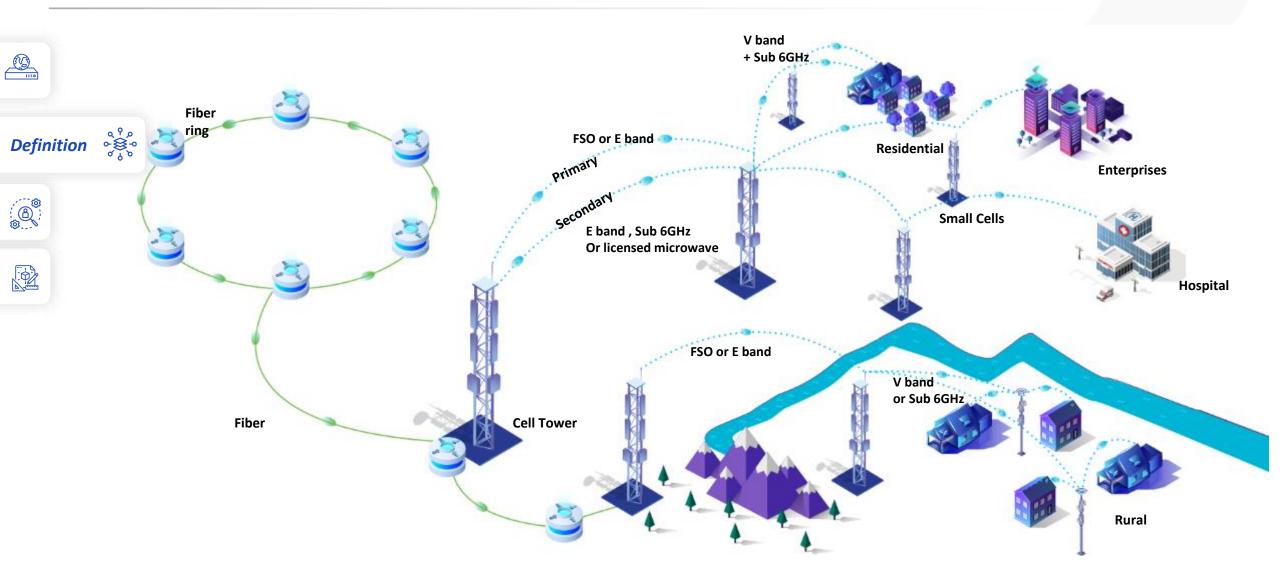
# What is a Converged Edge Network?





# How will a "Converged Edge Network" look like?

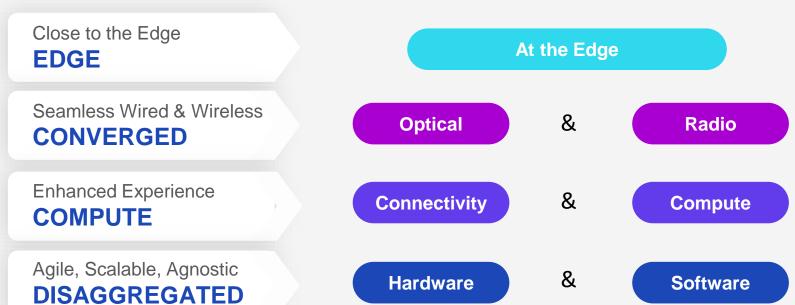




# **Characteristics of a Converged Edge Network**



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# What world expects from a Converged Edge Network













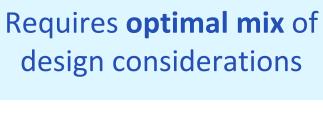














# **SLAUCE** optimization is the key to a Converged Edge Network

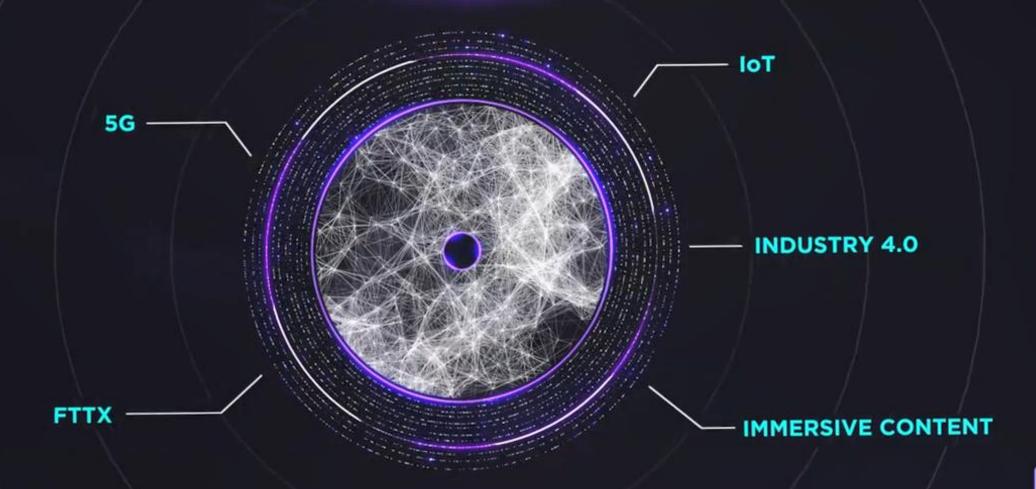




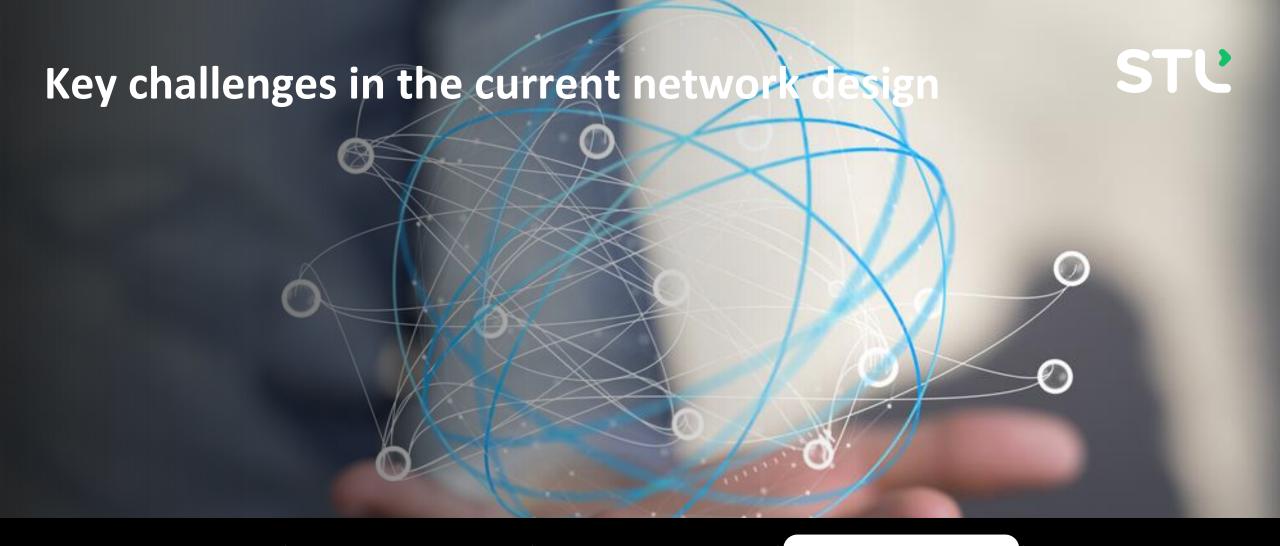
PARAMETER	5G	FTTH	<b>Enterprise</b>	Data Centre	Î
<b>S</b> CALE					
LATENCY					
<b>A</b> GILITY					
<b>U</b> PTIME					
COST PER GB					
<b>E</b> XPERIENCE					



# Digital Mega trends are shaping the future of DATA NETWORKS







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# SLAUCE is key, but design challenges need to be solved



## **KEY CHALLENGES**

- 1 DISINTEGRATED APPROACH
- 2 INCREMENTAL PLANNING
- 3 MULTI PHYSICAL LAYER
- 4 EXECUTION CONSTRAINED PLANNING
- 5 POOR NETWORK INVENTORY DATABASE

## **NETWORK IMPACT**



Design gap among different layers



Inadequate resource dimensioning



Inefficient resource utilization



**Unoptimized Planning** 



Unoptimized usage of existing asset



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# Solving network design challenges STL way of network design - iCORE

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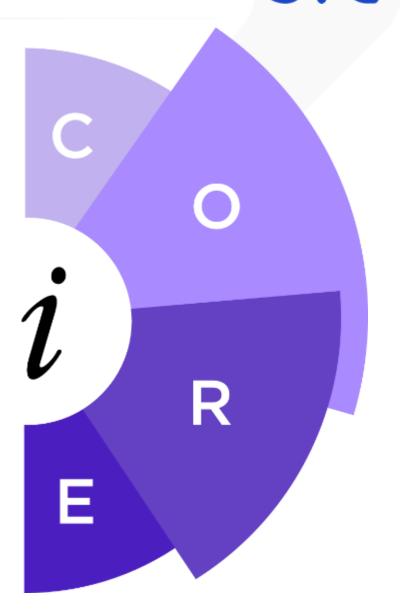
Integrated

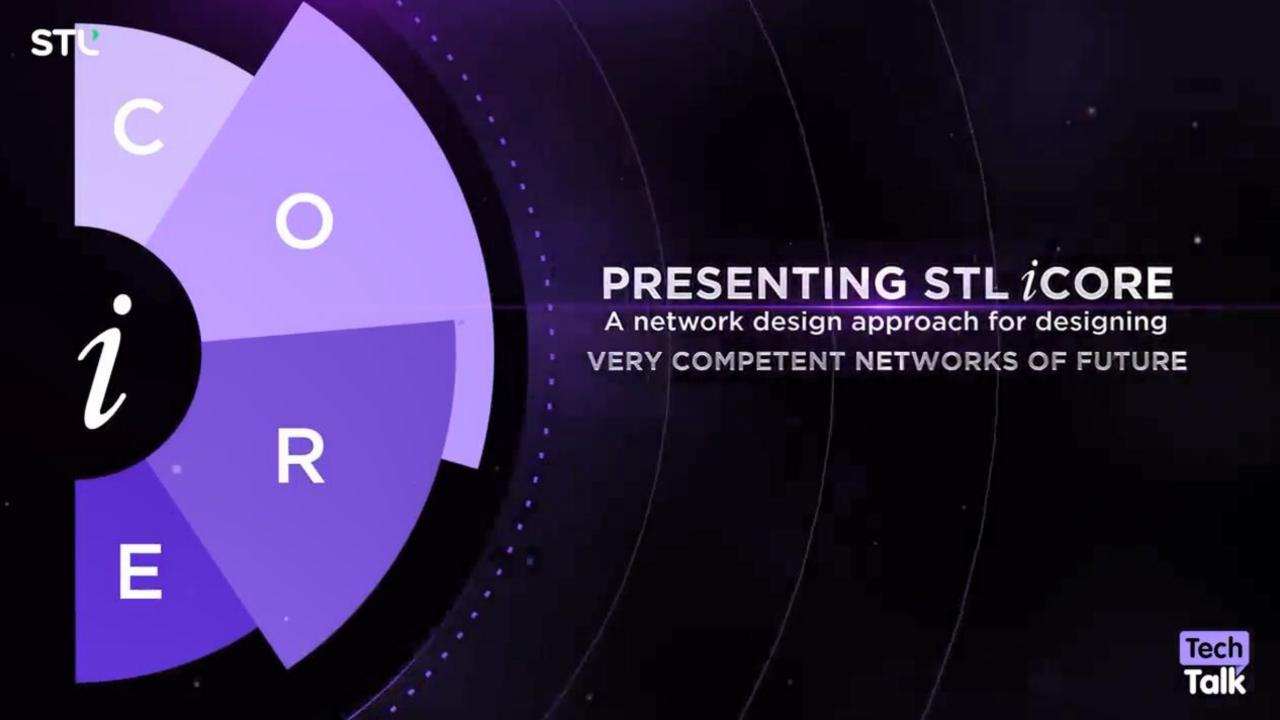
C Centralized Planning

One Backbone

Re-Use Existing Infra

**E** Everything Survey





# ntegrated design across all 3 layers



Integrated

C

0

R

E

## Disaggregated approach...









**Application Layer** 







Logical Layer

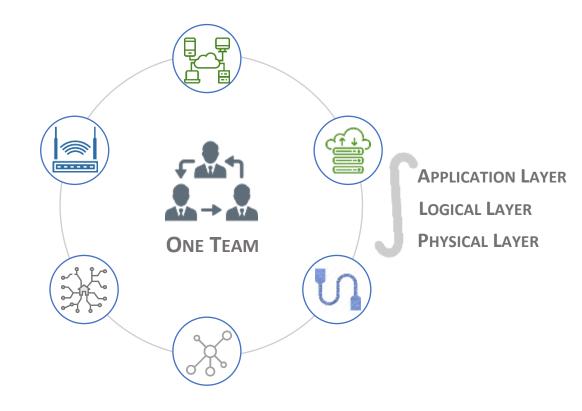






Physical Layer

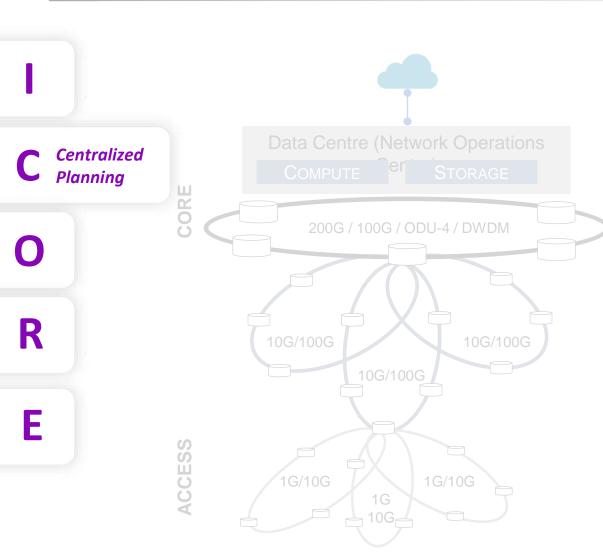
# **E2E Integrated Play across 3 layers...**



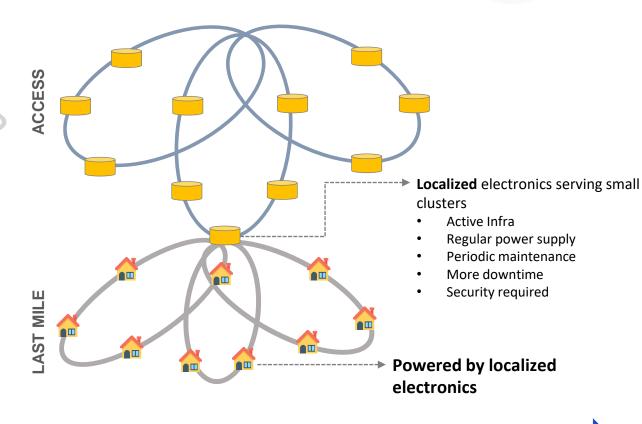
# Centralized network planning

#### **Transition from decentralized**





# Decentralized network planning

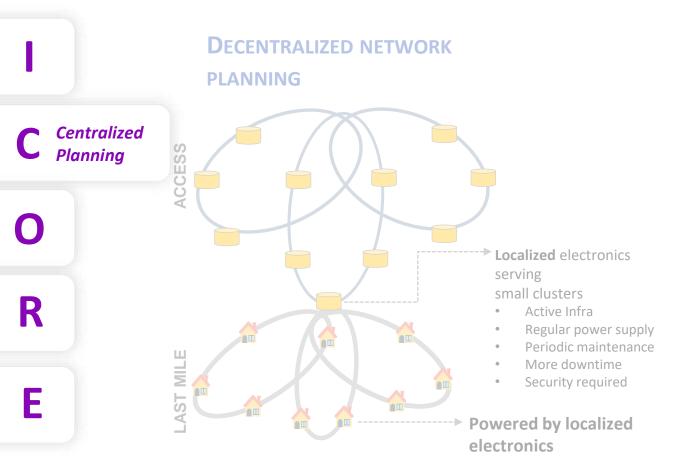


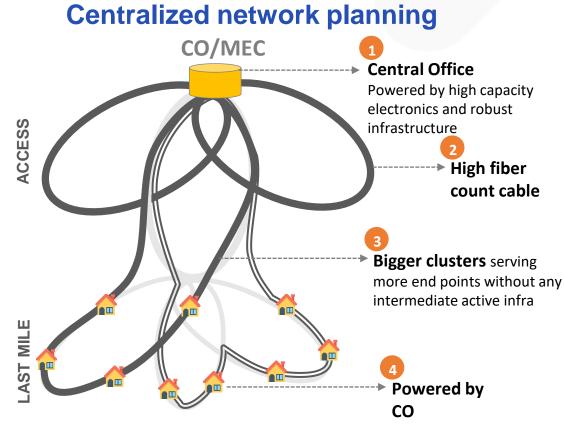
**DECENTRALIZED to CENTRALIZED** 

# Centralized network planning

- Transition from decentralized







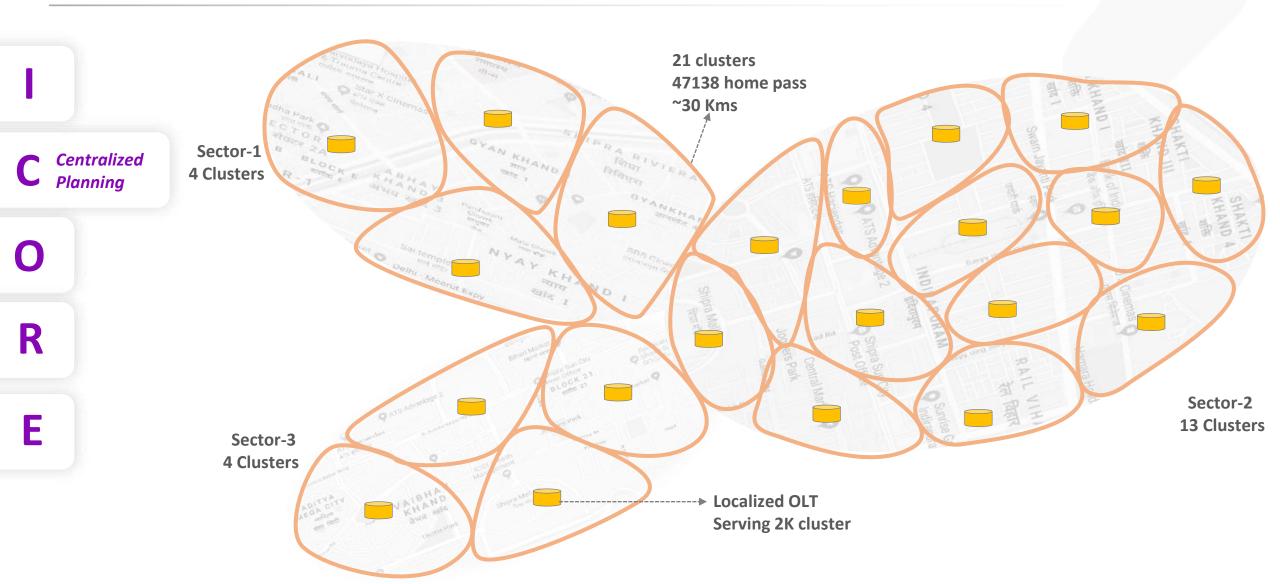
\*CO – Central office



# A live example- STL Indirapuram Cluster

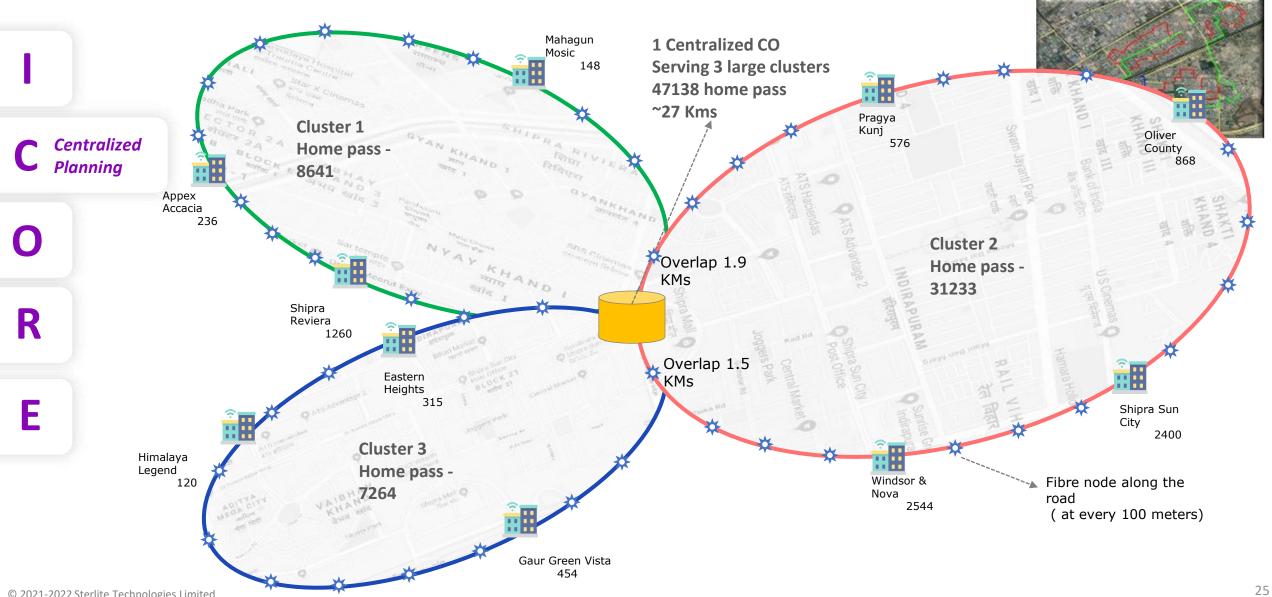
# **Decentralized approach**





# A live example- STL Indirapuram Cluster **Centralized approach**





# One integrated physical backbone to cater all digital needs







# Layer **Applications**

CORE

















Smart Home & Buildings, Industrial Automation

Accident/Disaster/ **Smart Healthcare Smart Education** 

Smart Communication

Smart Transportation

Utilities Environment

Connecting poles, Street lights

Connected Cars

**Smart Security** & Surveillance

26

# Layer

# Logical

# Cloud/DC



IaaS PaaS SaaS

#### **Transport**



IP/MPLS DWDM/OTN SD-Core/SD-Access

#### Access devices



Router Switches **OLT/ONT** 

# **Future Proof highly scalable Physical layer**

High fibre count backbone

# Re-use of existing infra for network enhancement



C

O

Re-Use
Existing Infra

E



Service Intelligence

- Leverage already laid duct utilities
- Tracking of unused passive infra
- Surveillance of active and passive equipment



Robust information database

- Centralized database for passive and active infra deployed
- Extensive use of GIS
- Geo tagging of network resources



Optimize active & passive elements

- Consideration of centralize Vs decentralize planning
- Optimize space and power need by proper assessment
- Less electronics to reduce overall cost

Leveraging existing infra will optimize scale and reduces overall cost

# **Everything Survey to assess existing network infra**



# **TECH-ENABLED SURVEY TECHNIQUES**

**Drone** led survey

**Street view** survey



**LIDAR** survey



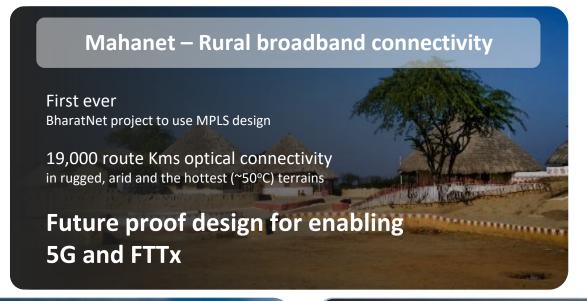
**Ancillary technologies** 

Advanced video analytics, Digital measurement tool, Soil strata prediction tools, Iterative design, based on info collected

**Everything** 

## iCORE in action – Case Studies



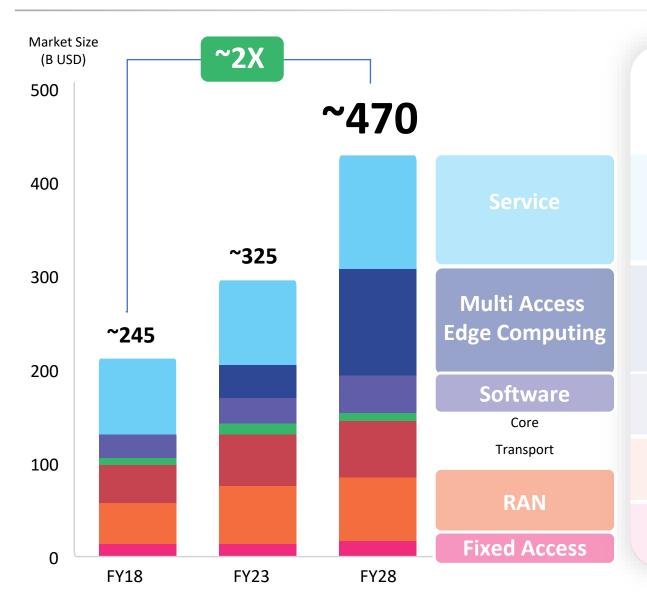






# STL expertise in network services





# STL has end to end solutions across the value chain

Design, Build, Manage

Powered by a world class partner ecosystem





**Converged Platform for Wireless and Wireline networks** 

Modern SaaS based platforms
AI-ML enabled solutions

dTelco Inteliza

Cloud native, open vRAN solutions

Garuda

WiFi6

Programmable FTTx and optical connectivity solutions





