Global NaaS Event

By MEF

LSO Service Provider Use Cases

Panelists

Fritz-Joachim Westphal
Lead Architect
Deutsche Telekom, Group Technology

Richard Carrara
Senior Principal Solutions Architect
Equinix

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Senior Manager & Principal Architect
NTT Communications

David Villegas
Senior Manager
Digital Architecture

Michael Kearns
CSO & Co-founder
Amartus

MODERATOR

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Diversity of Use Cases

Increasing Diversity of MEF LSO API Use Cases

Provider Use-Cases	Product(s) / Service(s)	Requirements	3rd Party & Internal Provider Services / Infrastructure
Enterprise B2B - Enterprise Direct - Managed Service - NaaS LSO Cantata / Sonata, Allegro / Interlude	• Abstracted Enterprise E2E Network • Subset of services used to build an Enterprise Network	• Customer Self-Service Portals & APIs • Business Negotiation & Operations • Manage 3rd party/ internal suppliers & services • Match Enterprise needs to Supplier Services • Monitor all network components & report status	• **Overlay** (SD-WAN / SASE) • **Underlay** ***Subscriber:*** E-Line, E-LAN, IP VPN… ***Access:*** Fixed, Wireless, Satellite – Access E-line, IA, L3 Links ***Transit:*** Telco backbone, Alternative Global Backbone, Cloud Core Network ***Inter-connect*** • **Edge** Cloud / Network Edge • **Security**
Telco International Wholesale LSO Sonata	• Last-Mile Access • Transit	• Serviceability, Quoting & Ordering	• Access-E-line, Internet Access, Fixed & Wireless • E-Transit, Fixed
Telco Domestic Wholesale LSO Sonata	• Last-mile Access • Transit	• Serviceability, Quoting & Ordering	• Access-E-line, Internet Access, Fixed & Wireless • E-Transit, Fixed
Alternative Global Backbone LSO Sonata	• Transit	• Ordering	• E-Transit
Inter-connect LSO Sonata	• Inter-connect	• Ordering	• Access E-line
Cloud Core LSO Sonata	• Transit	• Ordering	• E-Transit
Edge Compute LSO Cantata / Sonata	• Edge Compute	• Ordering	• Bare Metal • Virtual Machine
Satellite LSO Cantata / Sonata, Allegro / Interlude	• Private Line, Last-mile Access,, Transit	• Serviceability, Quoting & Ordering • Trouble Ticketing • Performance Monitoring, Historical & Streaming	• E-Line, Access E-line, E-Transit

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Deutsche Telekom's Perspective

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Video Statement

Dr. Bertold Frech

VP International Strategy,
Marketing & Steering
Deutsche Telekom
Global Carrier

VIDEO

MEF LSO

Service Provider Use cases

MEF GNE Global Summit, Oct 2023

LIFE IS FOR SHARING.

Service Provider Use Cases

Domestic & International Wholesale

- DT Gobal Carrier started to implement LSO Business APIs (Serviceability, Quoting & Ordering) - E-line services onboarded first
- DT Domestic Wholesale Germany will start implementation first steps of business process chain – Address Validation and Ordering

PoCs & showcases

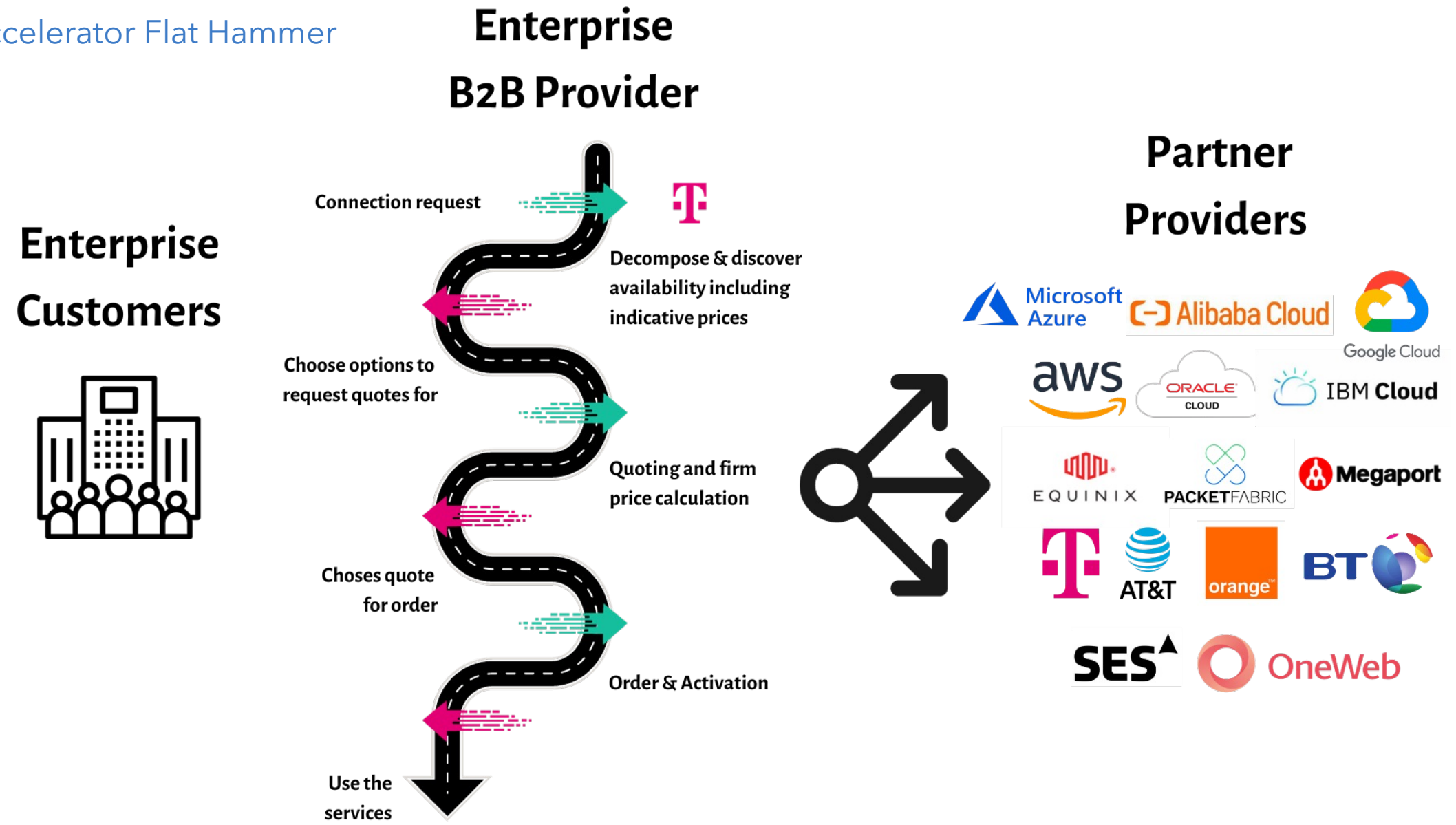
- Inter-provider Automation of Layer 2 services
- Combined Inter-provider & Multi-cloud Automation
- “Flat Hammer” MEF accelerator on B2B Cloud Network Automation (Interactive negotiation of service intent; Last Mile Access negotiation; Global Inter-Connect via various non-telco 3rd Parties)

Additional Discussions

- On potential use of MEF SD-WAN model to abstract above the multiple SD-WAN solutions and on use of MEF LSO APIs for Ordering & Technical Configuration

Enterprise Cloud Network Automation

MEF Accelerator Flat Hammer



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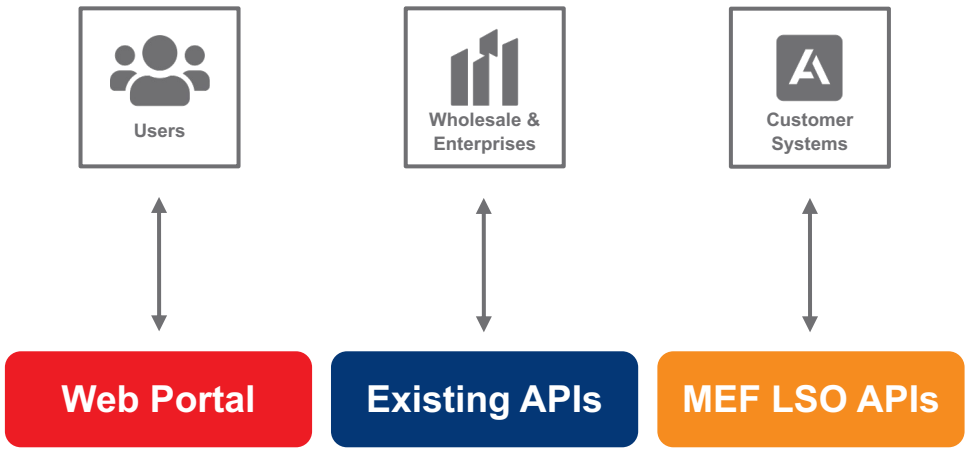
Equinix's Perspective

EQUINIX

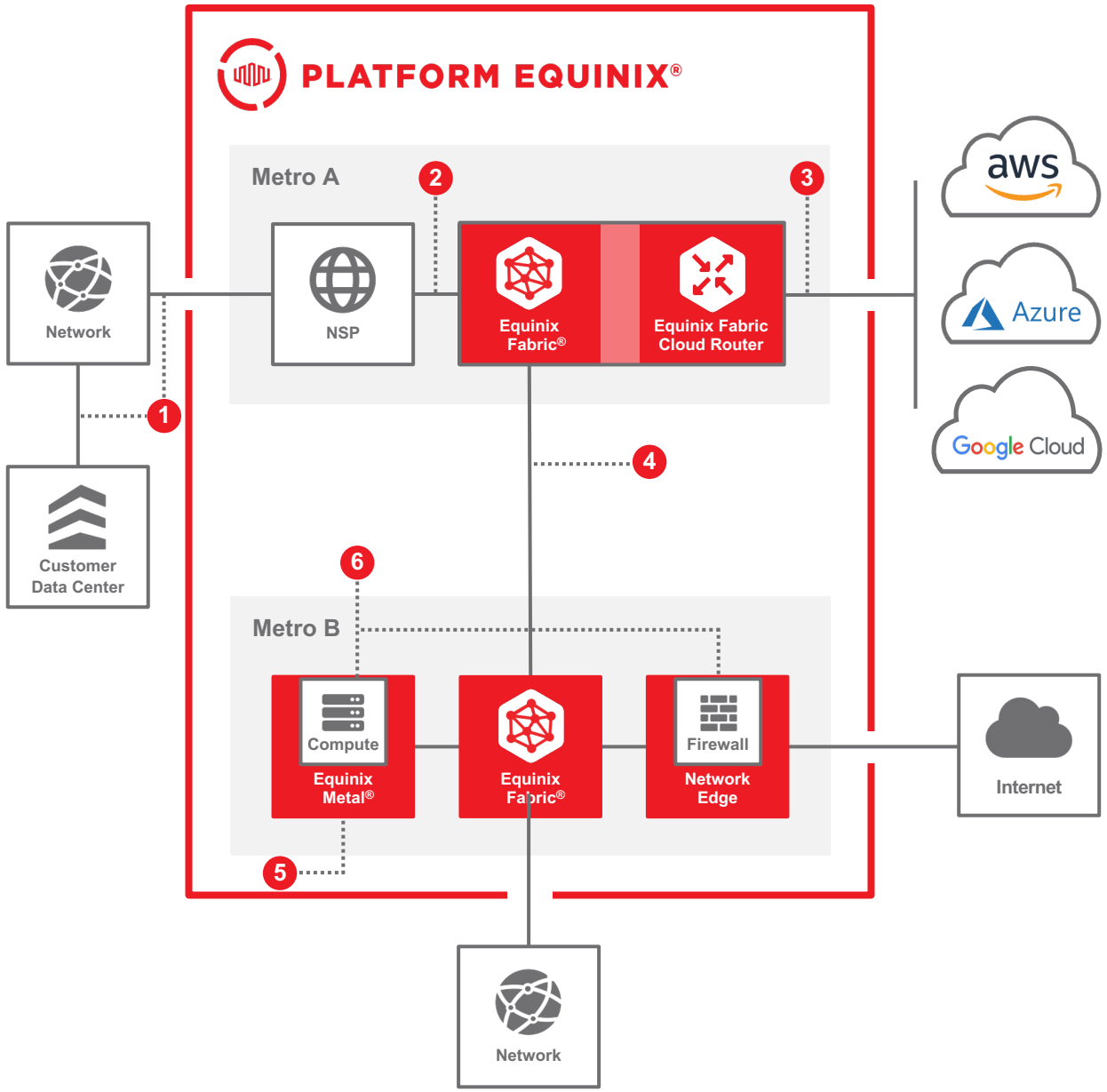
MEF LSO APIs & Equinix Fabric



Equinix Fabric Orchestrator

Connectivity Automation

1. Private Line
2. Port
3. Interconnect
4. Transit
5. Bare Metal
6. Virtual Devices



Equinix Fabric Services

EVPL, EPL, EVP-LAN, EP-LAN
Access E-Line, Transit E-Line

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NTT Com's Perspective

docomo business

LSO Service Provider Use Cases
NTT Com's Perspective

1st Oct. 2023

Wenyu Shen

NTT Communications

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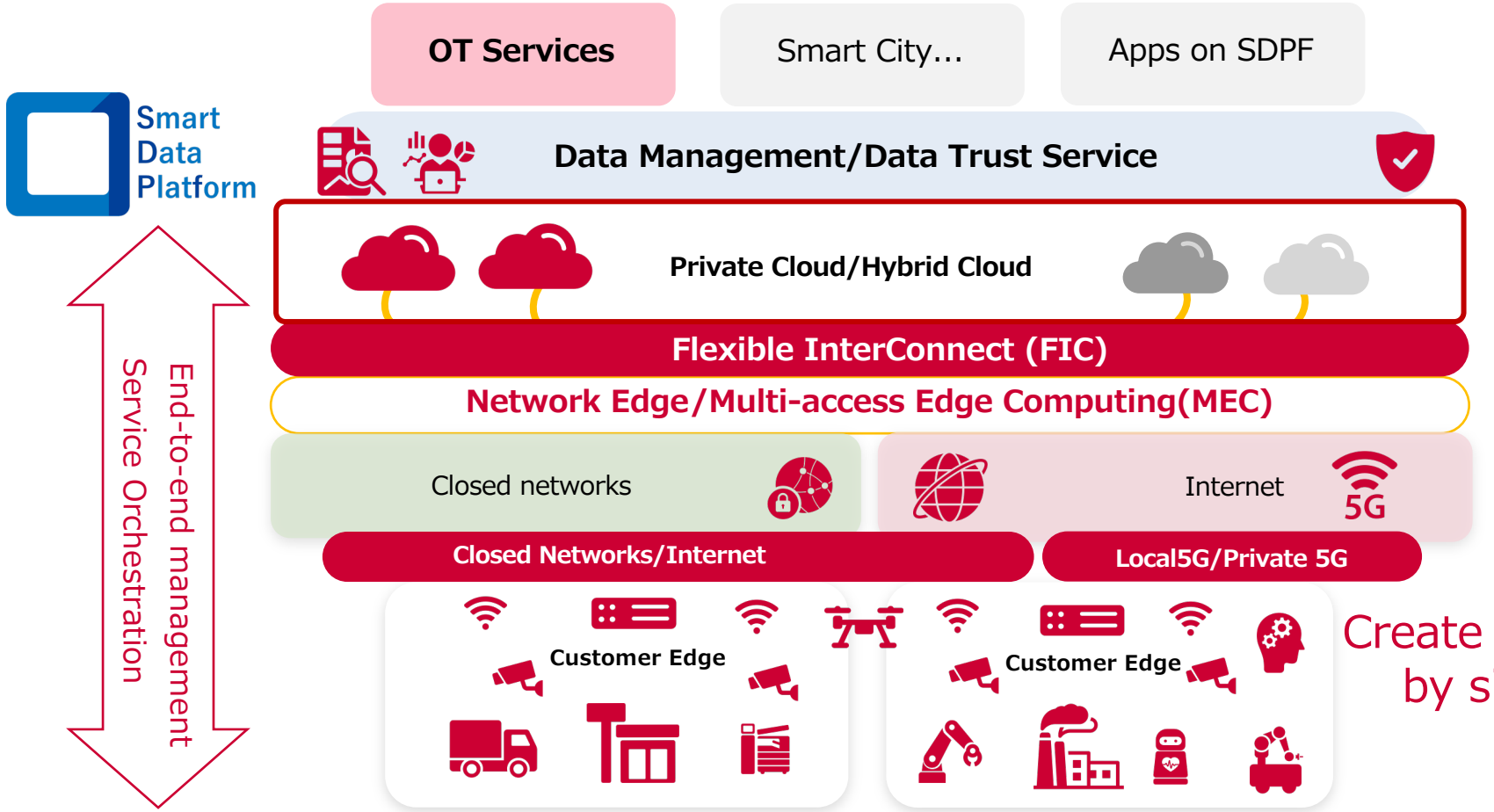
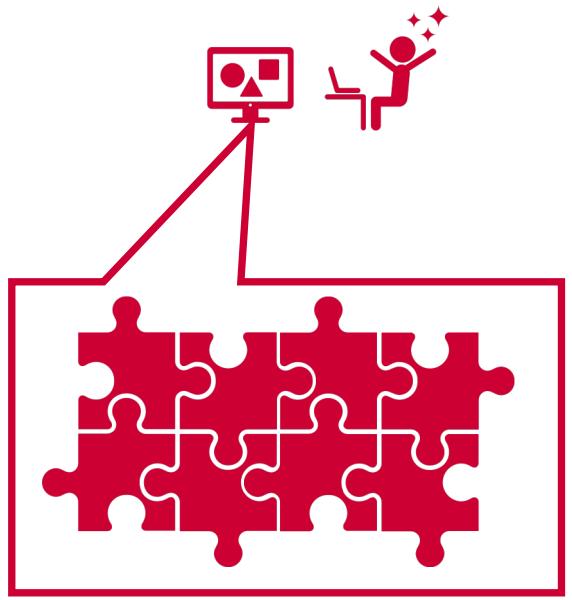
Ground Design of NTT Com's ICT Infrastructure

- Integrate NTT Com's mobile/fixed networks, private clouds and edge infrastructures
- Provide a Composable Platform on which our customers can customize their services on the fly





Create end-to-end customized services by simply combining components!

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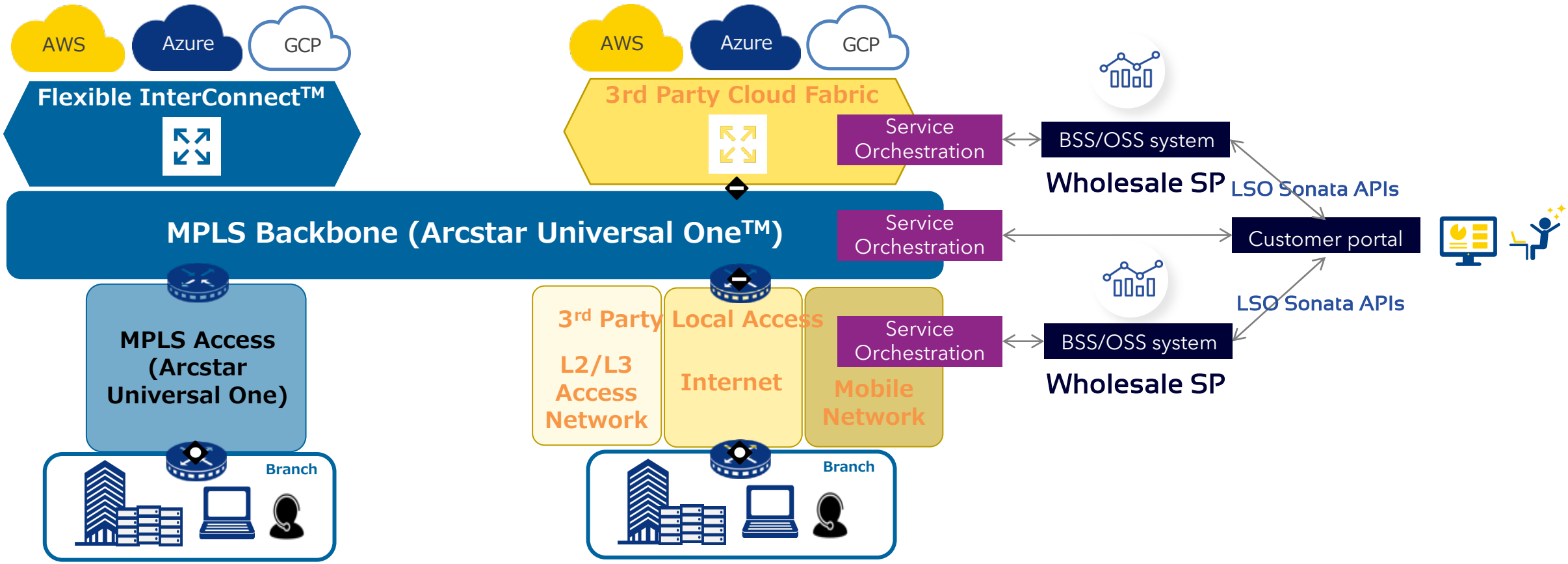
Building the Global Private Network Fabric

- NTT Com's Arcstart Universal One offers global MPLS service in 190 countries/regions.
- The LSO framework has the potential to automate the seamless connection to the local partners.
  - **Local Layer 2 network**
  - **Cloud Fabric**



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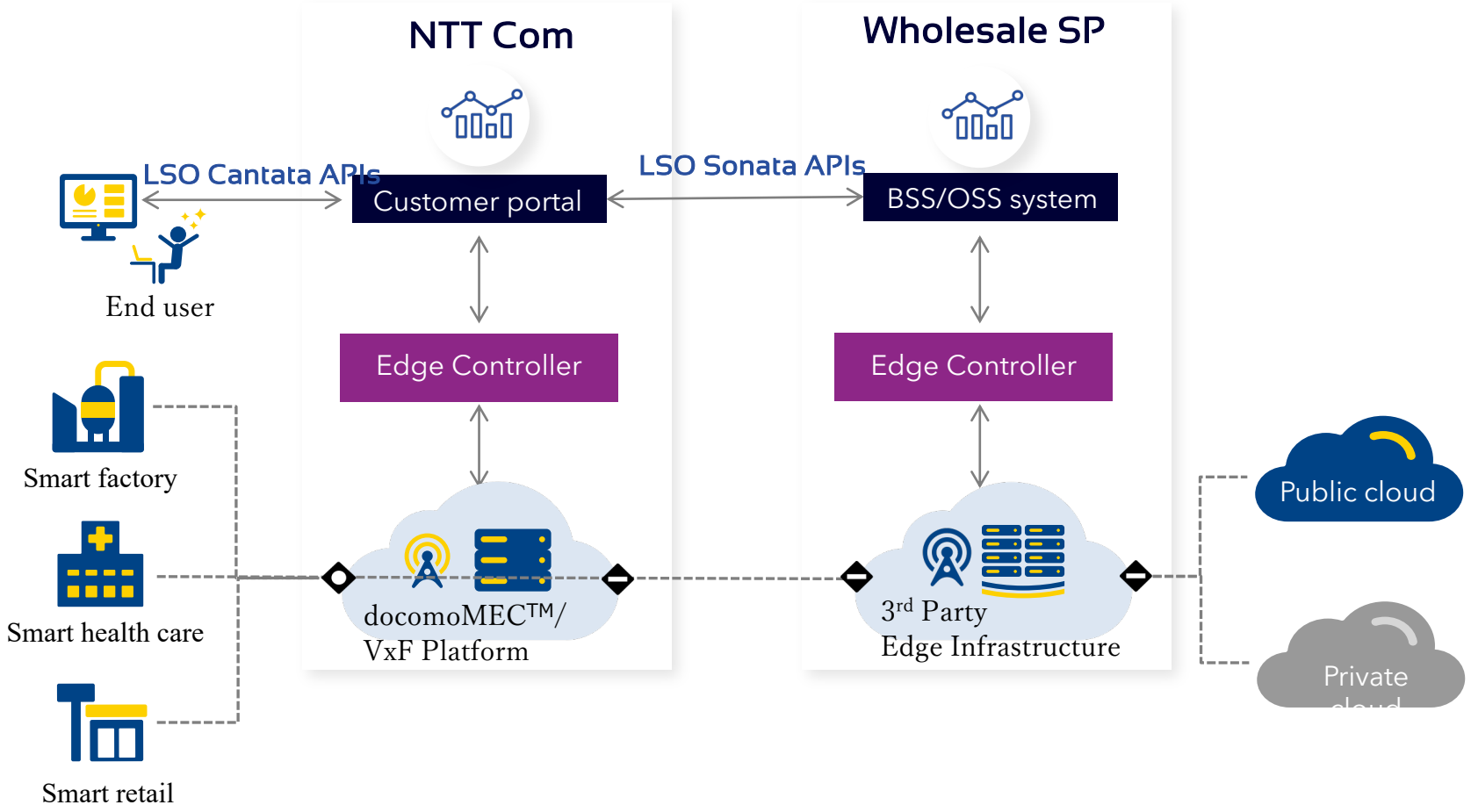
Extending the Edge footprint to a Global Scale

- A great amount of investment is required to provide “true” **edge computing service** in global wide scale, if we only rely on a single organization to provide such a service.
- The LSO framework is a potential enabler to help extend our edge coverage to a global scale.



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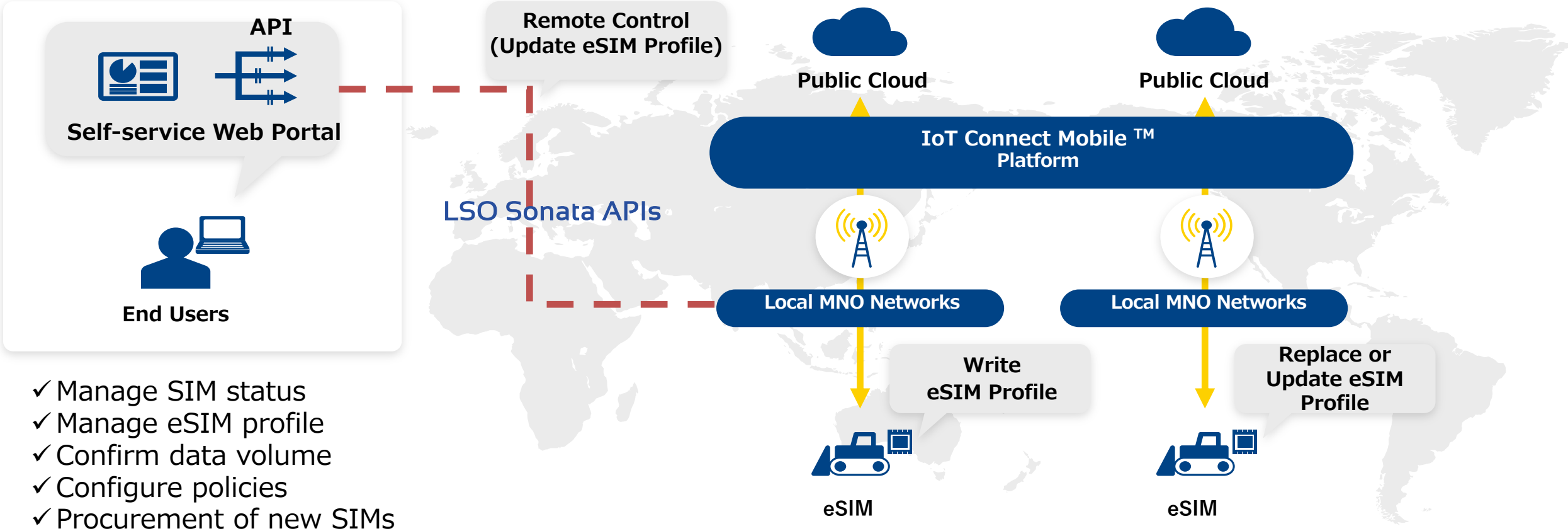
Simplying the Development of Global eSIM Service

- IoT Connect Mobile is NTT Com's global **eSIM service** for global IoT business development.
  - eSIM can remotely configure an optimal profile without the need to replace a SIM card.
- The LSO framework can be a candidate solution to release our developers from the tedious integration with the local MNO's system.



- ✓Manage SIM status
- ✓Manage eSIM profile
- ✓Confirm data volume
- ✓Configure policies
- ✓Procurement of new SIMs

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SES's Perspective

SES

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Video Statement

David Villegas

Senior Manager

Digital Architecture

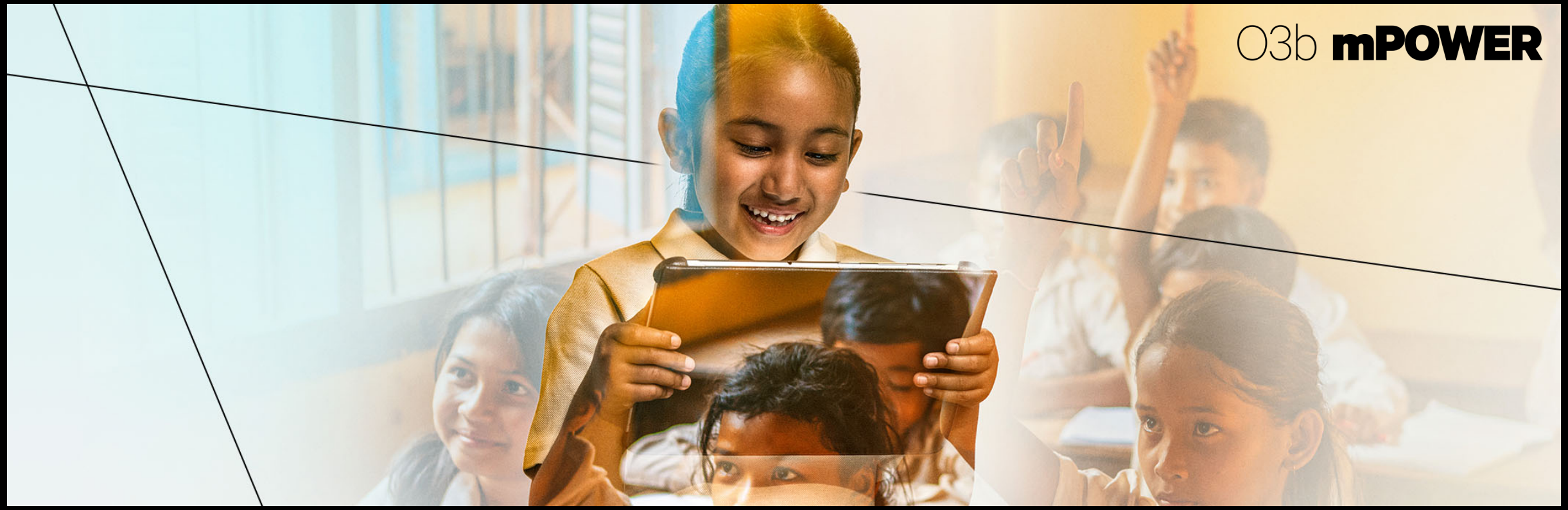
SES

VIDEO

DIGITAL EXPERIENCE OF SES PRODUCTS

Presented by
David Villegas
Senior Manager, Digital Architecture

October 2023



SES

O3b mPOWER

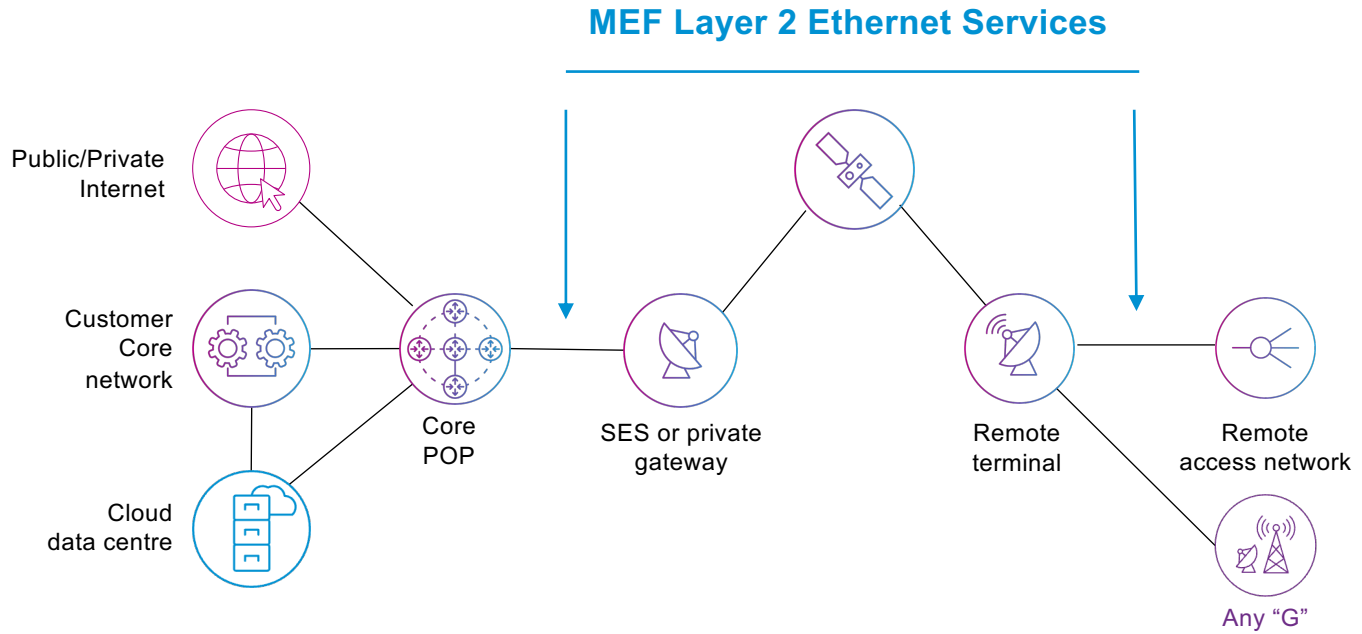
Multi-Orbit Carrier-Grade Satellite Connectivity

▲ Product characteristics

- High Throughput (up to 1500Mbps per link)
- Low latency (up to <150ms)
- **MEF Compliant service**
  supporting multiple applications per site

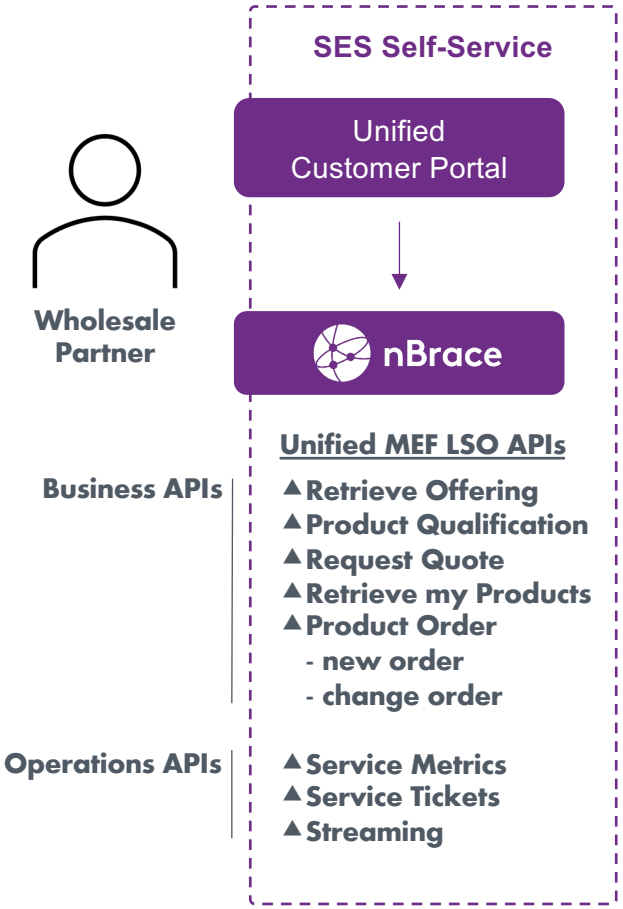
▲ Subset of available features

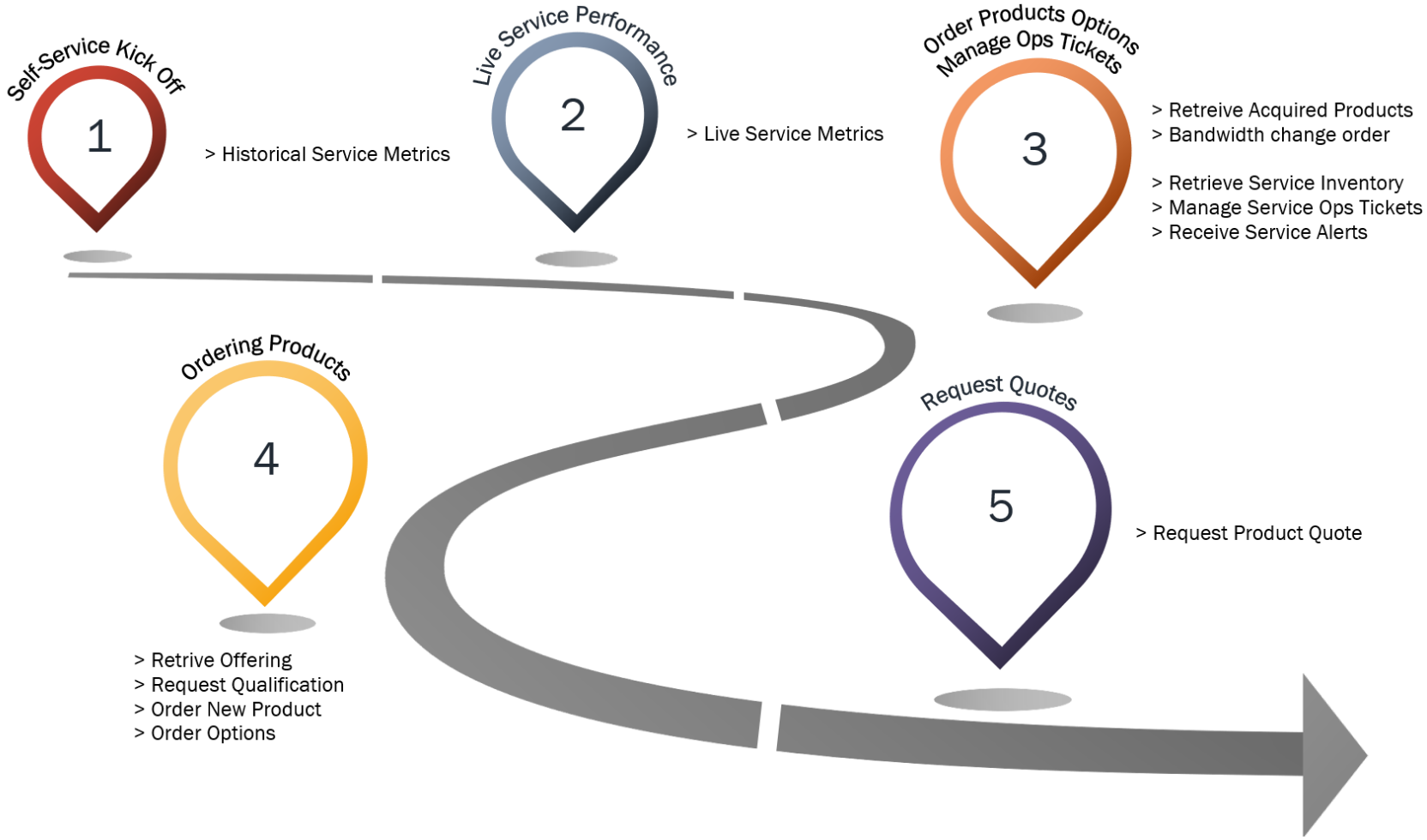
- Performance Monitoring
- **Flexible** Service Data Rate
  and Symmetry, on demand
- **Flexible** Handoff
  On-Net, Off-Net, On-Prem,
  Direct to Cloud
- SLAs, QoS aware



Self-Service through **MEF LSO APIs** and Customer Portal

Customer Digital Experience Target and Roadmap Intent





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Panel Q&A

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Thank You