Modernizing Content Delivery with Open Caching

September 29, 2021

cisco

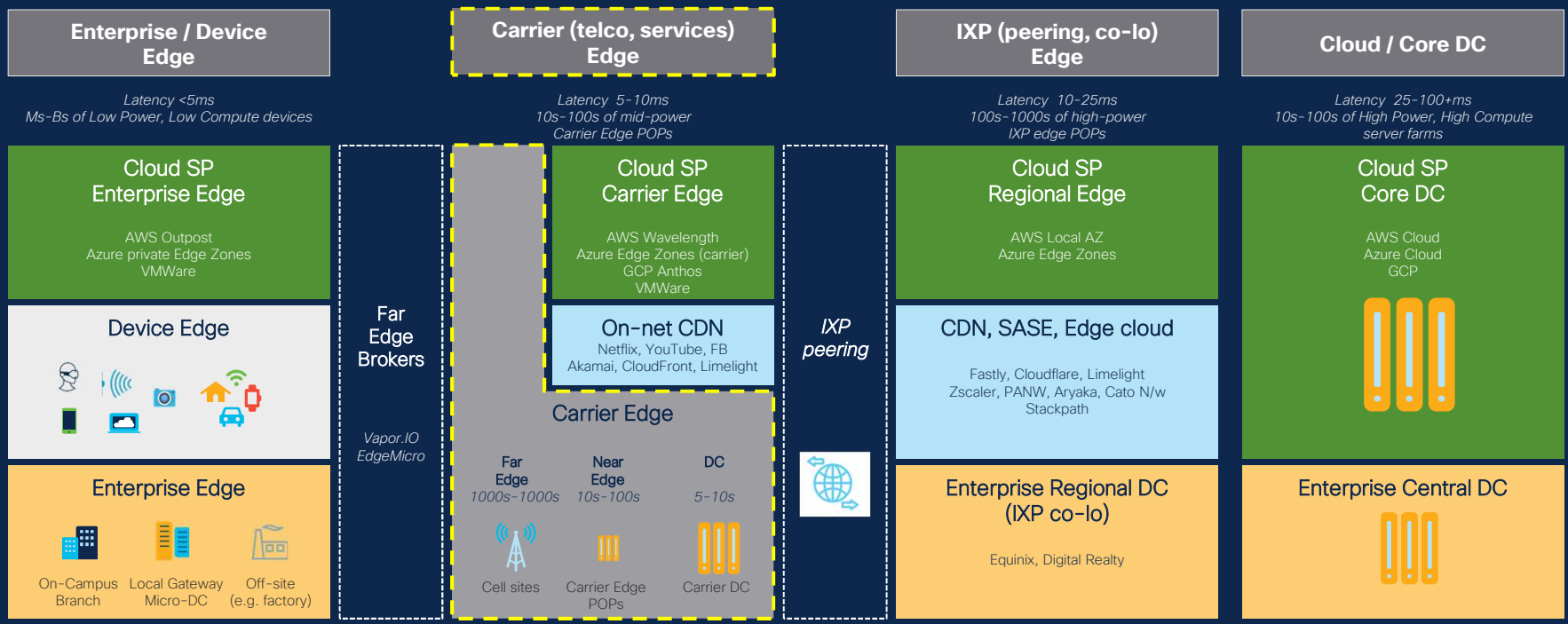
Dr Stephane Ribot
Head of BDM – Edge Services
Mass-Scale Infrastructure Group

Jesper Knutson
VP Sales

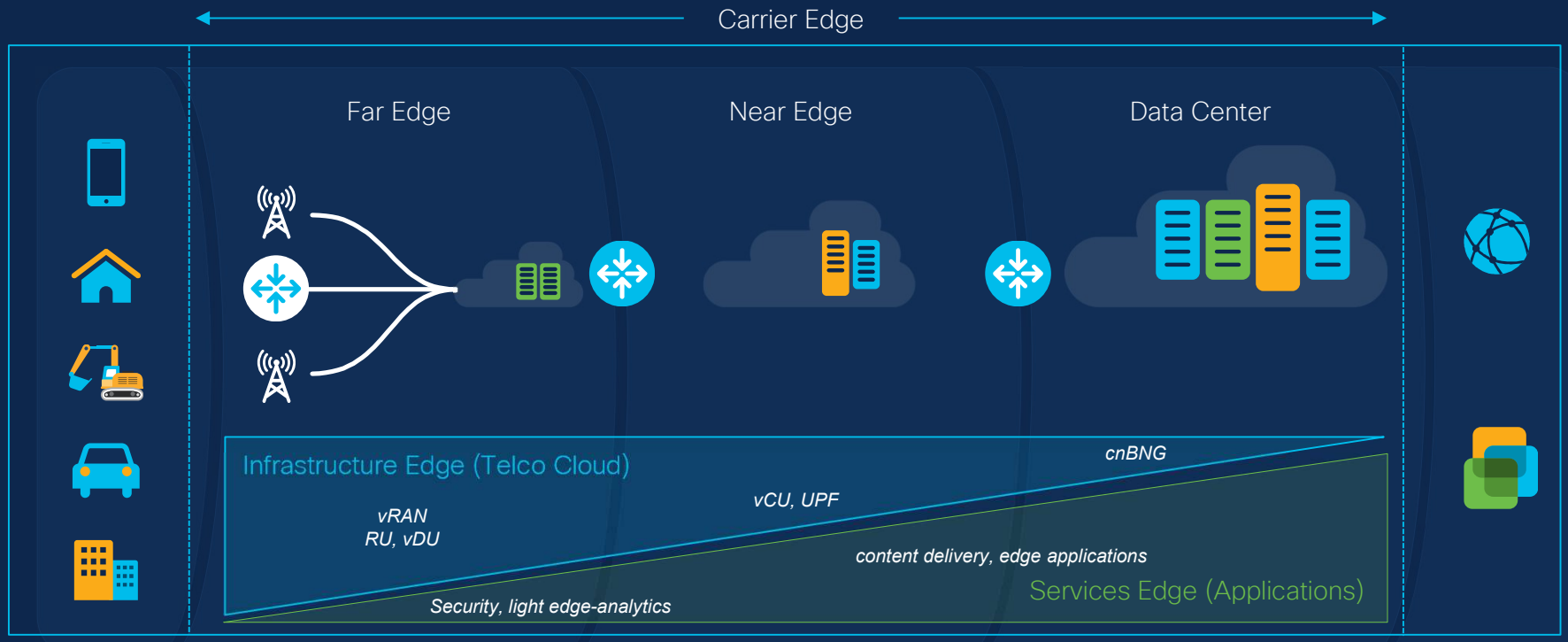
Agenda

- Content delivery provides a pragmatic approach toward future edge compute use cases
- Open Caching enables operators to take control of content delivery
- Service providers are realizing the benefits of Open Caching today

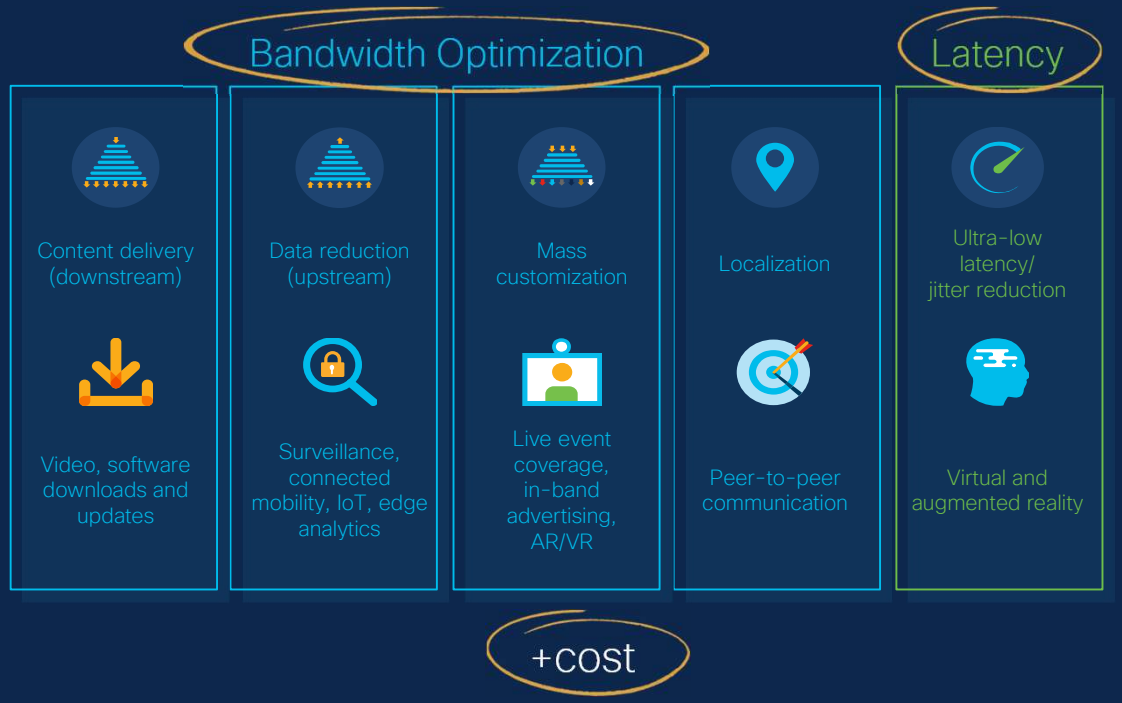
Carriers' edge network is a key control point on the Edge compute continuum



Holistic approach to the Carrier Edge



The Carrier Edge provides unique benefits to specific applications



We may not know
which workloads will get deployed
at the (carrier) edge...

...but those that eventually do,
will do so to satisfy **constraints around latency, throughput and/or cost** that can only be met by moving to the edge...

...and will therefore
value those benefits
that only the edge can offer

What makes for a good Carrier Edge use-case candidate?

1. "Network-centric" or "network-enhanced"
2. Traffic or data localization
3. Highly scalable / "big-rock"
4. Self-reinforcing network effects

Content Delivery is just the start

Innovative approach to bringing content delivery to the Carrier Edge

Unmatched quality of experience

Turnkey aaS offering mitigating operational and business risk

Minimal investment; new revenue stream

QWILT CDN

CDN solution, based on Open Caching, tailored for deployment inside SP networks including revenue sharing with carrier

CISCO Infra

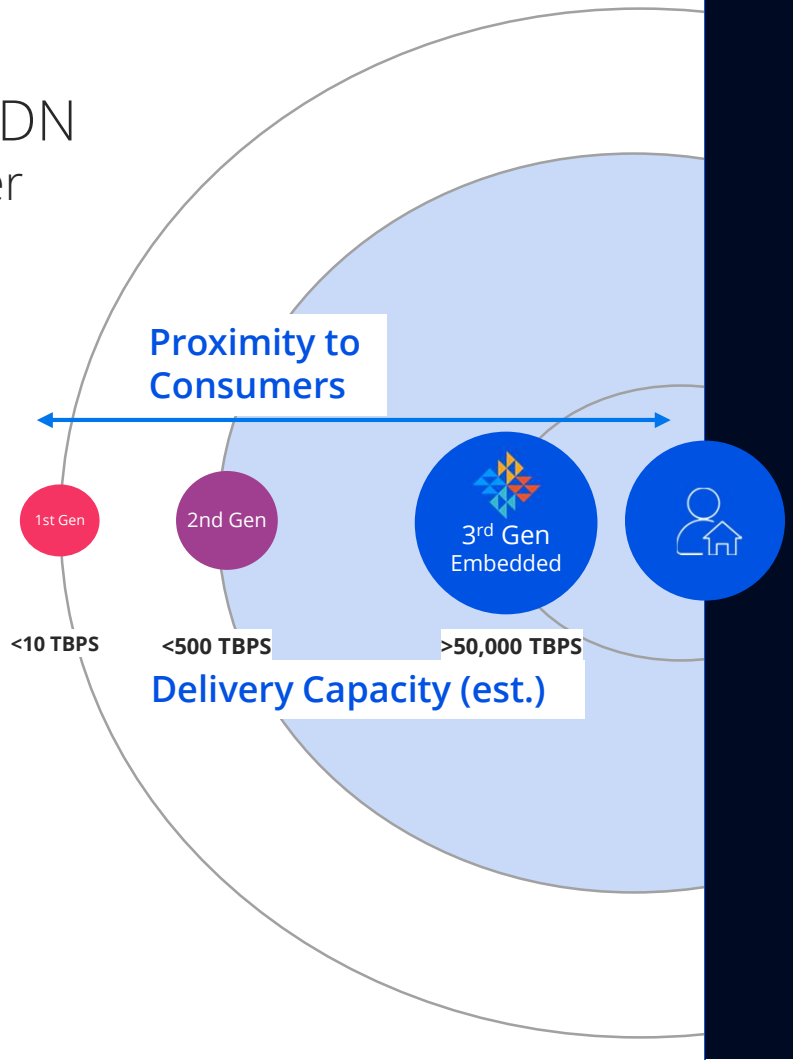
Cisco-based compute/storage/ networking infra and management technology and services

Qwilt's Unique Edge Cloud Value Proposition to Service Providers

Next generation CDN
at the service provider embedded edge

Superior Quality, More Capacity,

Get closer to your users than ever before by tapping directly into their service provider network to offer a superior viewing experience



CDN Evolution

1st Gen

1995-2010

Centralized CDNs

1 TO 10 TBPS

2nd Gen

2010-2020

Today's CDNs with APIs

10 TO 500 TBPS

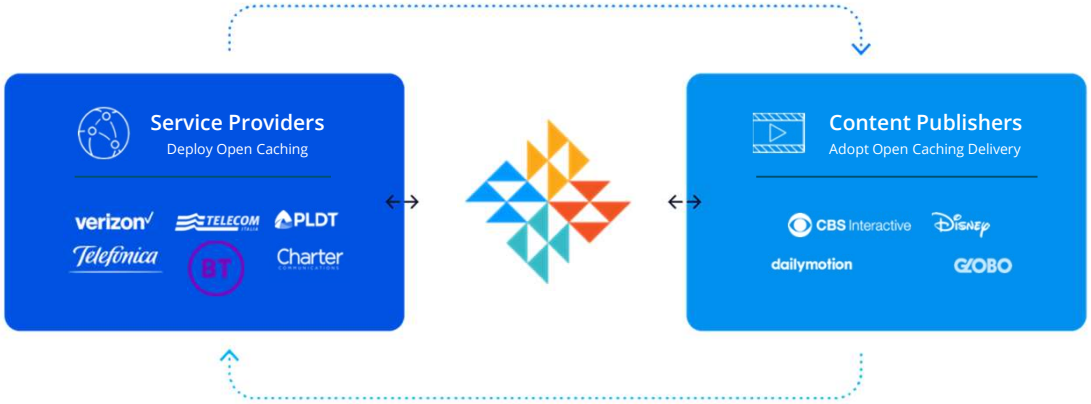
3rd Gen

Service provider embedded edge

500 TO 50,000 TBPS

How do we get so close?

Innovative model secures direct partnerships with Tier-1 service providers, leveraging their reach and proximity to users.



Powered by :

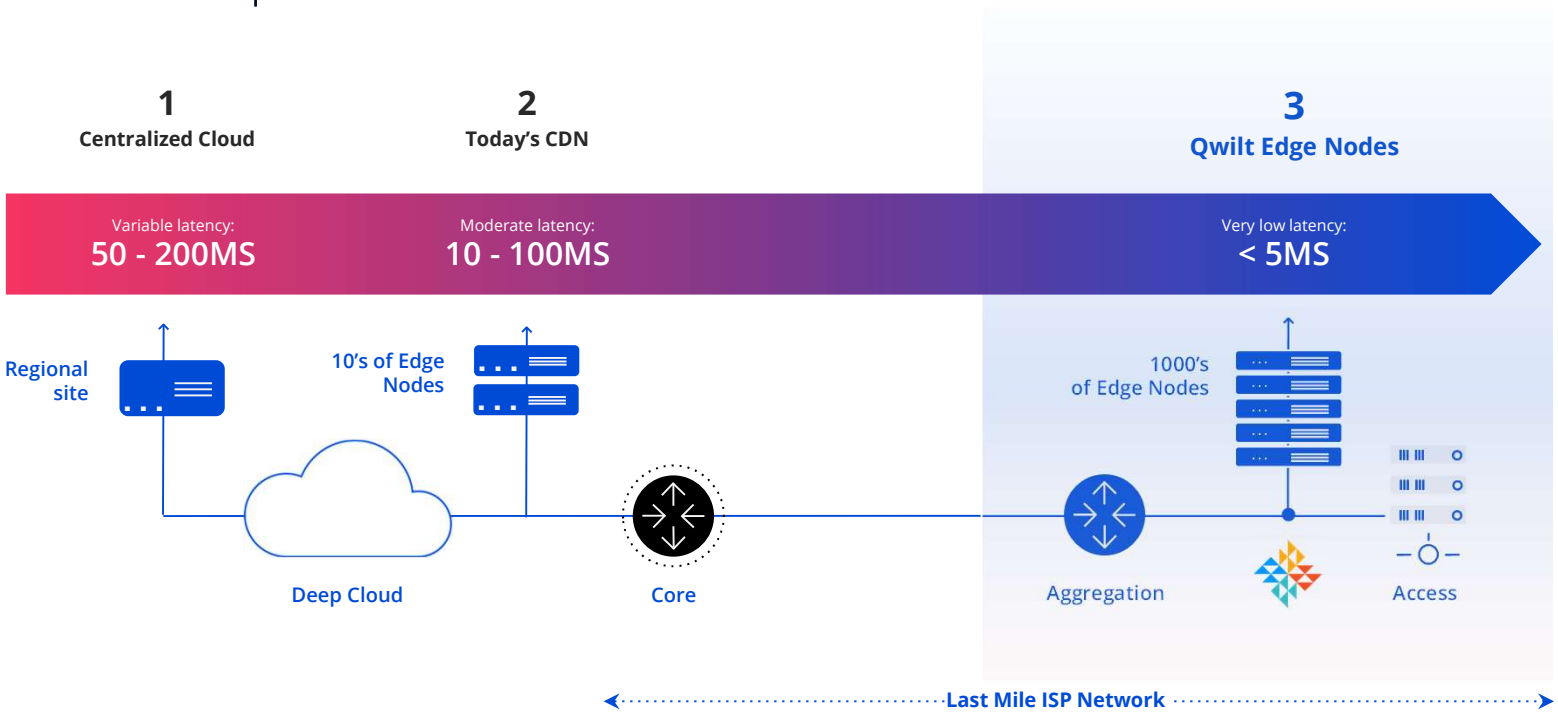
New Commercial Model

SPs procure, deploy and operate edge delivery infrastructure. They share in content delivery revenue and as such are incentivized to sustain superior QoE and expand their CDN offering.

New Architectural Model

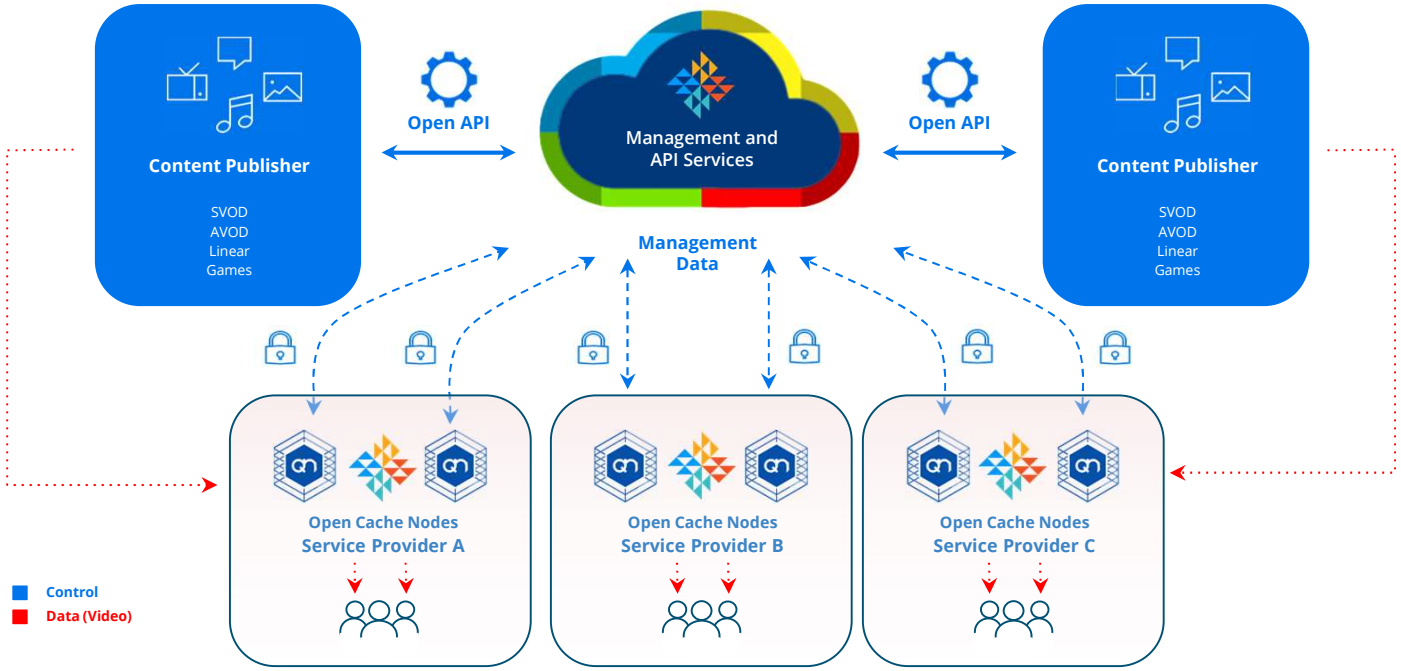
SPs deploy edge nodes deep in their networks, close to consumers, avoiding congestion at core and peering/exchanges

Open Caching is deeply embedded within the service provider network

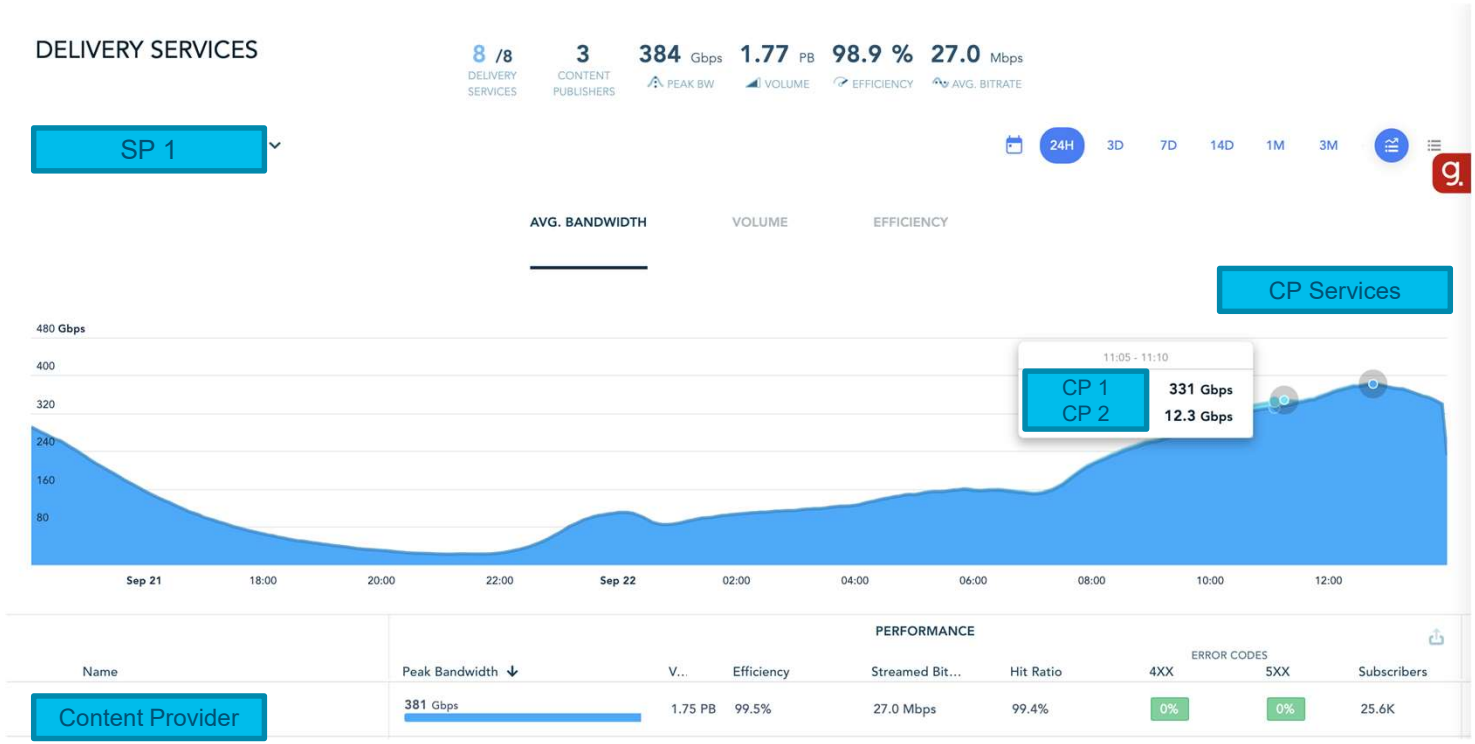


Open Caching Architecture

Single API allows content publishers access to global network of service providers



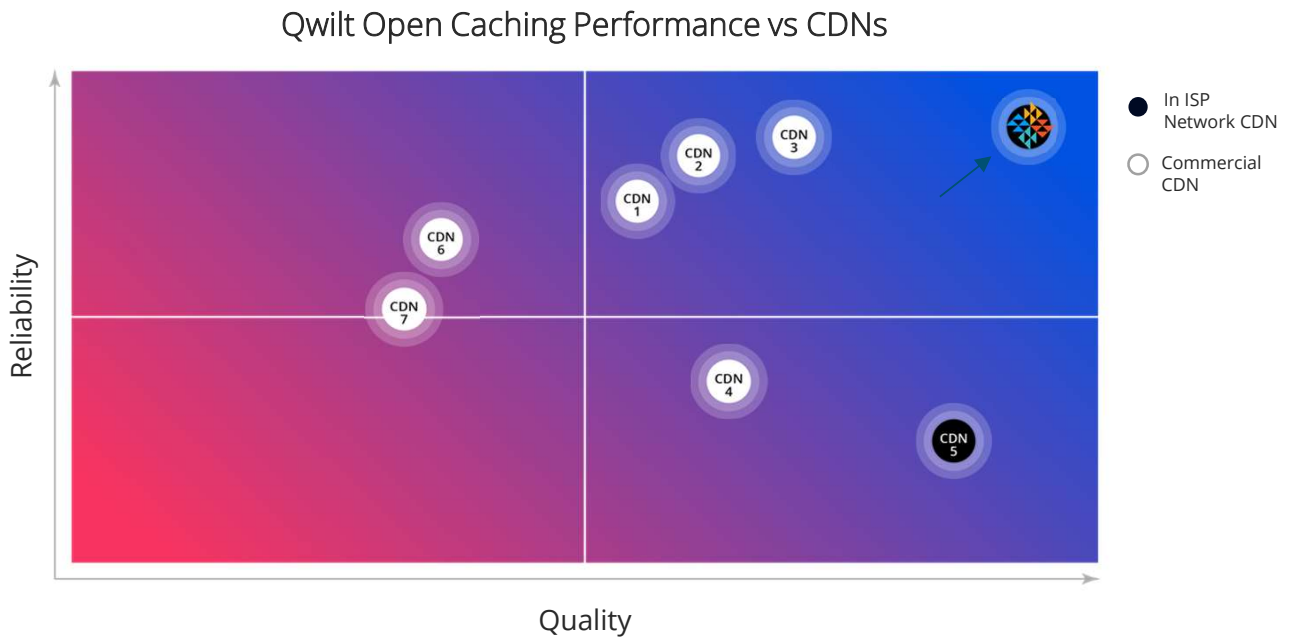
Realtime Visibility – SP Dashboard



Closer is Measurably Better

Our performance against the rest is proof

Tier 1 Global Content Publisher –
Performance measurement of 8 commercial CDNs, January 2020 – January 2021



What our partners are saying

Cisco Knowledge Network

Disney streaming services

“we’re committed to the open cache initiative”

Open Caching Gives Disney Streaming Services Control

Control of Local Delivery

“We’re looking for an improved control of our content. I like the idea of moving our traffic to BT and letting BT handle that traffic to BT consumers.”

Control of Economics

“I like the idea of generating the right economics. And while we go on this journey to 200 terabytes of edge traffic, we need to control our costs.”

Control of Capacity

“The relationship that we have with BT gives us the ability to, on a Tuesday, route traffic over the CDNs, and then on a Wednesday, route traffic over the open cache. I like that flexibility.”

Hear his remarks at streamingvideoalliance.org

streaming video alliance

BT Success Story

Open Caching Outcomes for BT

- Highest-quality streaming experience
- Enabled new revenue by
- Reduced costs by deploying in-network CDN
- Supports an open architecture
- Minimize or eliminate deployment costs

"Our mission at BT is to ensure our customers have the best experience every time and with record levels of streaming we needed to disrupt the status quo. **Qwilt's pioneering open caching platform together with Cisco's cloud infrastructure gives BT the first 5G MEC capability in the UK** to deliver premium quality video and on demand services."

Neil McRae, Chief Architect, Managing Director for Architecture and Technology Strategy at BT

[Watch Neil's interview at Qwilt.com/resources]

TIM Brazil Success Story

Open Caching Outcomes for TIM Brazil

- Outstanding streaming services across all regions
- Traffic visibility and control improves user experience
- New business model eliminates capital expenditure
- Robust content delivery expands business use cases

"Through our partnership with Cisco, Qwilt, and Digital Alpha, **we introduced the platform we wanted with zero capital expenditure. And now we have a flexible platform that also opens up new opportunities for TIM Brasil**. In fact, content distribution has become one of the main pillars of our business strategy."

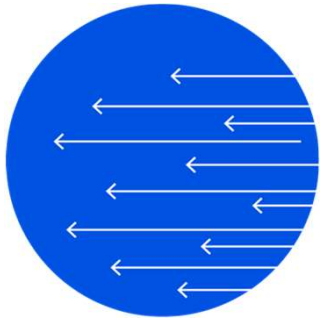
Angelo Faverzani, Executive Manager, TIM Brasil

[Watch Angelo's interview in the customer case study area of cisco.com]

Closer is truly better

More Capacity

Qwilt delivery service offers more capacity through our deep partnerships with service providers which means our delivery nodes are deeply embedded in their networks



Superior Quality

Lower latency, higher quality delivery of video streams to consumers. Measurably better performance than traditional CDNs

Better Economic Model

We partner directly with service providers to embed and operate delivery infrastructure and we share revenue with them that directly benefits the end user customer.

Resources

For more information, please visit our websites:

- Cisco Cloud Services Stack for Content Delivery
- Qwilt Open Edge Cloud for Service Providers

Questions?


CISCO

Potential Questions

- Benefit of fully integrated solution?
- How do you measure QoE?
- What is the typical timeframe for a Tier 1 CSP deployment?
- What content publishers have you partnered with so far?
- What is the typical configuration of a cache in the CSP network?