



EXPERIENCES BUILDING AND FINANCING DATA CENTER
INFRASTRUCTURE FOR THE DIGITAL ECONOMY

EMPOWERING THE EDGE

Volume, Velocity and Variety of Data Rapidly Growing

DRIVING GROWTH OF INFRASTRUCTURE BEING BUILT AT THE EDGE



Today



Exploding Demand for Content



Cloud Adoption Goes Mainstream



Consumer and Industrial IoT

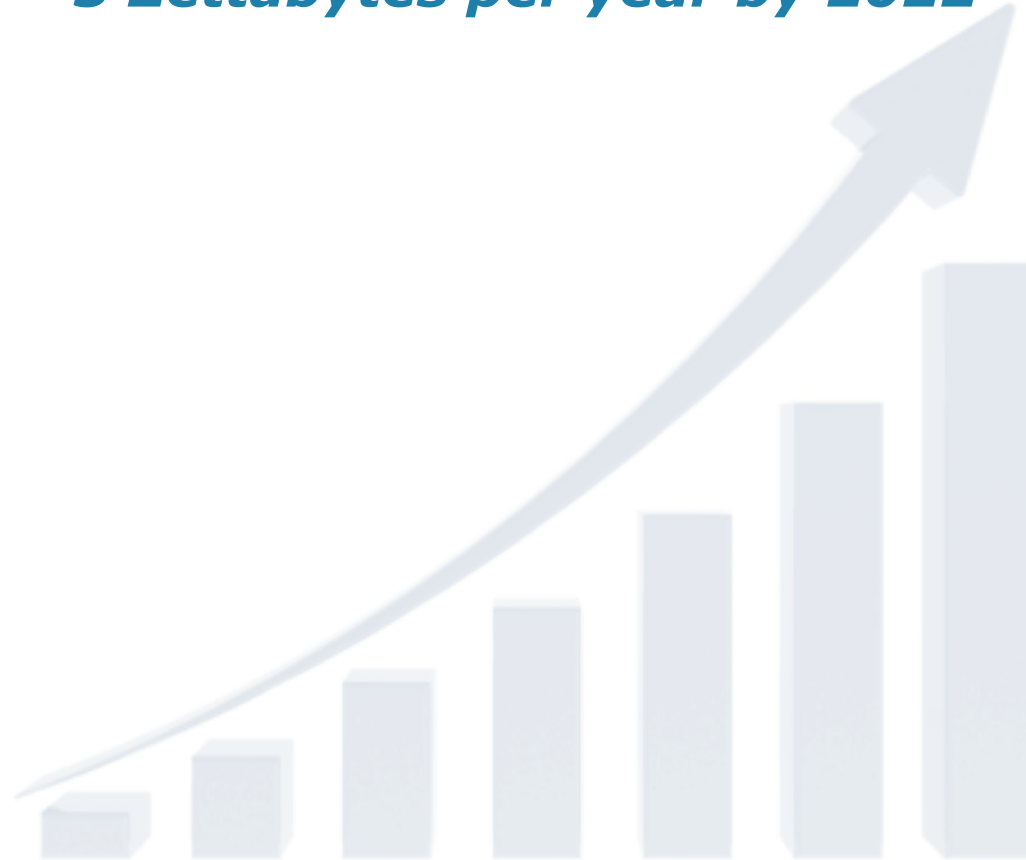


Immersive Gaming



The Connected Enterprise

Annual global IP traffic will approach 5 Zettabytes per year by 2022*



Tomorrow

Distributed Networks
5G/Wireless



Virtual & Augmented Reality



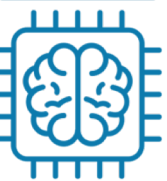
Autonomous Vehicles



Smart Homes, Cities, & Industries



Machine Learning & AI



**Cisco VNI Report*

Where Is The Edge?

IT IS DEFINED BY THE CUSTOMER, NOT BY THE PROVIDER



**THE EDGE IS THE LOWEST LATENCY POINT
OF DEMARCATION BETWEEN SERVICE
DELIVERY AND CONSUMPTION...**

**...AND IT WILL CHANGE IN SIZE AND
LOCATION RELATIVE TO THE SERVICE BEING
DELIVERED AND THE DEVICES BEING USED.**



The Content Edge

GETTING CLOSER TO THE EYEBALLS

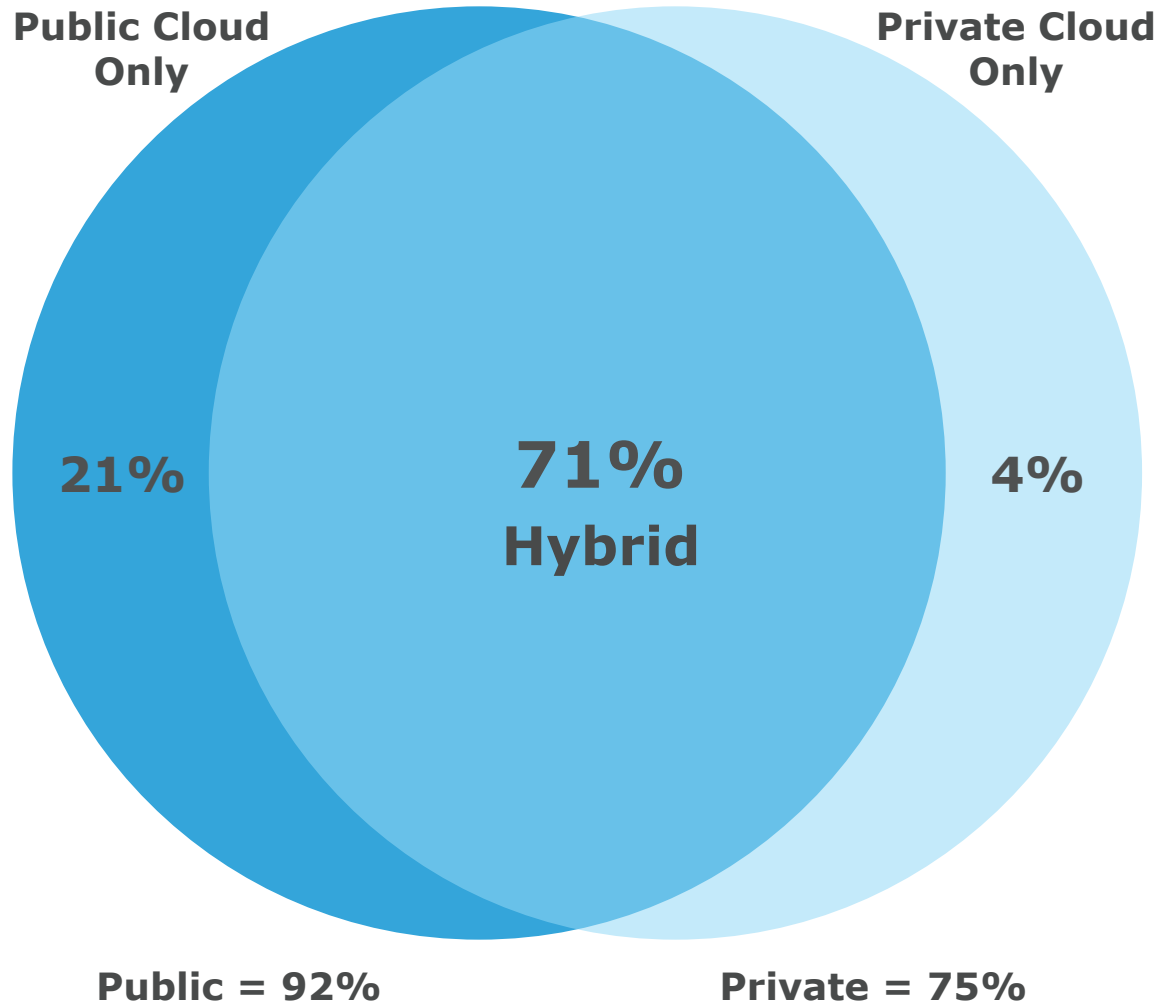
*"As nearly everyone and everything gets connected, the data that is required to function in the digital world risks being congested in the core or, even worse, caught up in large-scale cyberattacks. As a result, **the world is now realizing just how important the real estate at the edge can be**".*

-Tom Leighton, CEO Akamai



2019 This Is What Happens In An Internet Minute

96% Of Respondents Are Using Cloud



Source: RightScale 2018 State of the Cloud Report

The Cloud Edge

HYPERLOCAL TO HYPERSCALE

*"...we don't think of hybrid as a stopgap as a move to the Cloud. We think about it as the coming together or distributed computing, where **the Cloud and the Edge work together, not just for old workloads, but most importantly for new workloads.**"*

-Satya Nadella, CEO Microsoft

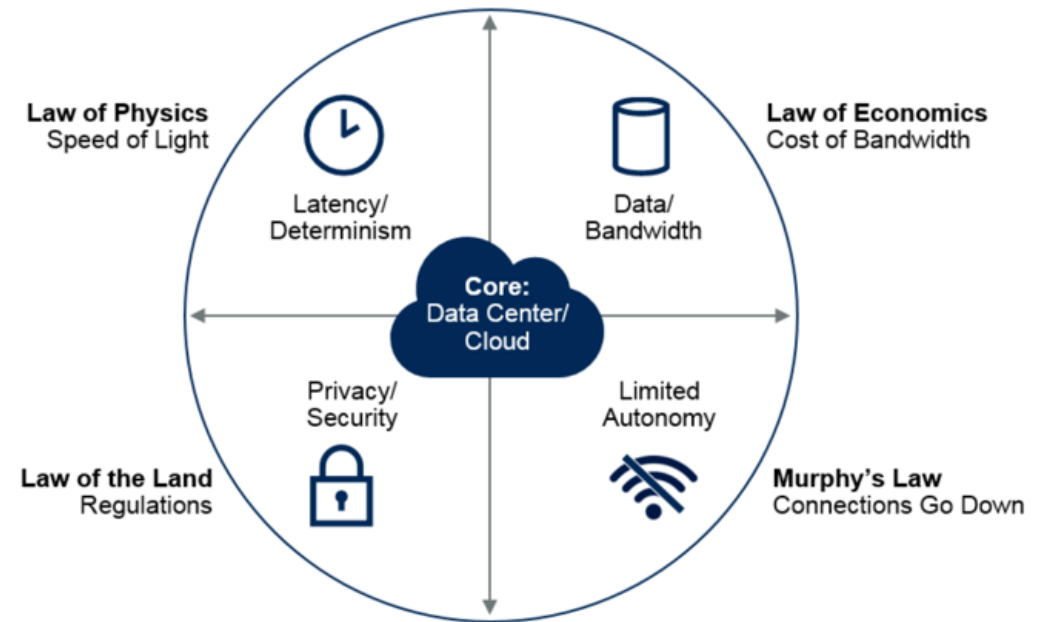
The Next Edge Wave

CORE, CLOUD, & EDGE, WORKING IN HARMONY

- **IoT** – Data, Compute & Networking at the far edge and micro-edge
- **Machine Learning/AI** – High-Density Power & Large Data Sets
- **Connected Vehicles**: Data uploads, s/w downloads, distribution & analysis
- **Smart Cities**: Content, ecosystems, logistics, and security at the edge



Four Imperatives Driving Processing Closer to the Edge



Source: Gartner (May 2019)

*"...there are **3 broad reasons local data processing is important**, in addition to cloud-based processing:*






- 1. Laws of Physics***
- 2. Laws of Economics***
- 3. Law of the Land"***

-Werner Vogels, CTO AWS

EdgeConneX: Hyperscale to Hyperlocal Data Centers

3 CONTINENTS; 30+ MARKETS; 40+ DATACENTERS; 200+ EDGEPOPS



Build to Order Any MW		Dublin & Amsterdam	10's of MW's built to customer specifications, full construction, delivered in 9 -12 months
Hyperscale 20 - 100+ MW		Amsterdam & Chicago	20MWs, global cloud service provider, built and delivered in 6-9 months
Cloud On-Ramps		Portland & Munich	AWS DirectConnect; Microsoft Express Route and Megaport serving content, cloud, and edge solutions
Edge Data Center 1 MW - 10 MW		Atlanta & Las Vegas	Average 4MWs, content streaming, hybrid cloud solutions delivered to fast-growing tier 2 markets
Micro Edge 10kW - 250kW		200+ PoPs	4kW - 256kW, in metro offices, cell towers, supporting network and data services for autonomous vehicles, 5G, or IoT

EdgeOS - DCIM+ for every data center



THANK YOU