



# Global Interconnection Index 2023

Measuring the Growth of the Global Digital Economy

Volume 6

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# Your Ecosystem Is Now Your Infrastructure.

Tapping into a vast ecosystem of suppliers and industry partners is essential to accelerate a digital-first strategy, while prioritizing sustainability. And digitizing business means navigating change to compete and thrive—demanding faster transformation and adaptable digital infrastructure now more than ever before.

## Executive Summary

**The latest edition of  
The Global Interconnection  
Index—2023—validates  
a key tenet of successful  
digital transformation:**

**Your  
ecosystem  
is now your  
infrastructure.**

### **Increase Your Advantage with Digital-first**

By embracing the power of ecosystems, organizations are leading with a digital-first strategy. This means merging digital business and technology strategies so they become indistinguishable.

Leading with digital is essential to close any profit performance gaps, increase opportunities and accelerate Environmental, Social and Governance (ESG) objectives. To further speed these ESG goals, leaders are making it a top priority that their sustainability values are aligned with those of their customers and partners.

### **Design Your Infrastructure to Become the Disruptor, Not the Disrupted**

An increasing number of businesses are turning to digital-first to stay ahead, with the number of organizations becoming digital leaders growing by 30%—despite supply chain constraints and geopolitical and economic instabilities. And this digital growth is global.

Interconnection bandwidth is forecast to continue growing at over 35% CAGR in each region and major metro over the next five years, according to GXI data.

To achieve leadership, you need a digital infrastructure that helps you leap ahead and solves for the combination of digital core, digital ecosystems and the digital edge, with an automated and flexible edge-to-cloud consumption model.

Digital leaders are moving beyond digitizing business as usual with this approach. They're designing for digital business revenue, identifying and investing in their core strengths and developing a flexible edge strategy leveraging a platform to extend digital infrastructure. These leaders have grown their digital infrastructure more in the last five quarters than in the past five years.



# The Global Interconnection Index



## Industry Research

The GXI forecasts how organizations are using interconnection bandwidth and distributed infrastructure to shape and scale the global digital economy. It is presented by industry and geography and supported by global deployment data.

This research explains the macro trends contributing to organizations' profit performance gap. It outlines the observed strategies/actions that all digital leaders employ to make the leap to digital transformation faster than in years past. And it provides details on the size and growth rate of digital deployment activity to inform a digital-first strategy.

Overall, GXI research shows how leaders responsible for digital transformation are focused on industry change, while disruption and market pressures are overwhelming late adopters.



# Highlights



## Digital-first Is the Answer

The number of organizations becoming digital leaders increased by 30%<sup>1</sup> despite supply chain constraints and geopolitical and economic instabilities.



## Ecosystem Density Is the Catalyst for Speed

Interconnected leaders have grown their digital infrastructure more in the last five quarters than in the past five years.



## Digital Growth Is Global

Interconnection bandwidth is forecast to continue growing at over 35% CAGR in each region and major metro over the next five years.<sup>1</sup>



## The Move to the Edge Is Accelerating

Both Enterprises and Service Providers are interconnecting edge infrastructure 20% faster than the core.



## Enterprises Are Becoming Digital Providers

The forecast shows that, within two years, Enterprises will match Service Providers in growth rates and capacity deployed.



## Digital as a Path to Sustainability

All industries are tapping digital to accelerate ESG objectives—even Energy & Utility, which is forecast to lead in digital growth rate for the next two years.

<sup>1</sup>The Equinix Research Group, 2022. This group is comprised of our Data Science, Market Analysis and Digital Strategy teams within Equinix.



## Predictions

BY 2025,

85%

of global companies will expand multicloud access across several regions.

BY 2025,

90%

of Fortune 500 companies will become digital providers, both selling and consuming digital services.

BY 2026,

80%

of G2000 companies will be digital leaders, interconnecting with 4+ Hyperscale Providers and 30+ SaaS/business partners, on average.



## Digital Infrastructure

The advantage of digital infrastructure comes from the combination of digital core, digital ecosystems and digital edge, with an automated and flexible edge-to-cloud consumption model.



### Digital Core

Removing traditional technology limitations, with cloud adjacent becoming the new on-prem.



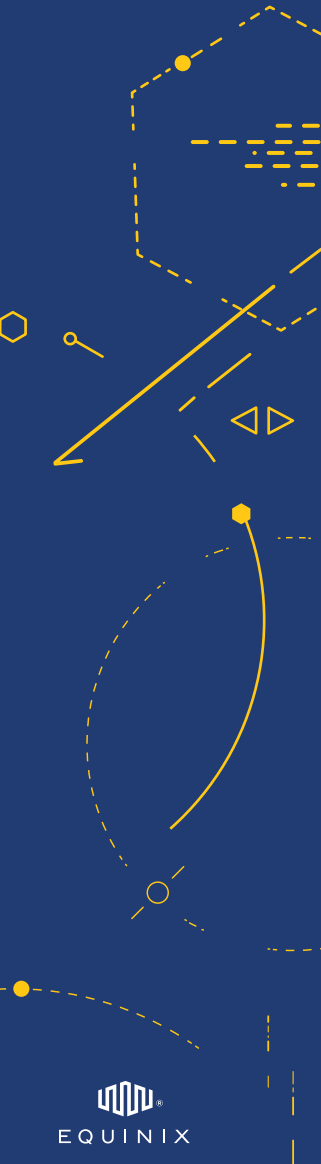
### Digital Ecosystem

Capitalizing on access to digital marketplaces and ecosystems for exponential capabilities and speed.



### Digital Edge

Delivering differentiated experiences globally in proximity to population centers everywhere.







## Recommendations

As part of any organization's digital transformation initiative, infrastructure must be designed to enable the business to operate in the digital economy—to be a disruptor, and not one of the disrupted.

### Digital Leaders Must Do the Following:

#### ✓ Develop a Flexible Edge Strategy

Utilize a platform to extend the organization's digital infrastructure. Don't invest in the piecemeal infrastructure at the edge.

#### ✓ Design for Digital

When it comes to business revenue, don't just digitize business as usual.

#### ✓ Design for Sustainability

Move to colocation and interconnect to ecosystem partners that share the organization's sustainability goals.

#### ✓ Rethink the Core

Evolve from rigid and centralized to being adaptable and distributed.

#### ✓ Invest in the Organization's Strengths

Commoditize and leverage ecosystems for everything else.



# Macro Trends in Digital

Large-scale global trends are driving a digital-first strategy



# Digital Presence

Digital transformation investment levels for 2022-2024 are expected to be \$6.3 trillion and 55% of all ICT investment by the end of 2024.<sup>2</sup>

## Macro Trend

Business is transforming to engage and deliver value electronically. Therefore, to compete in the digital economy, organizations are shifting to digital services.

## Implications

Forces the need for a digital infrastructure optimized for proximity to, and interconnection with, networks and clouds.

Enables digital development with elastic scale. IT becomes a revenue-generating function and the basis of competitive advantage for developing connected product bundles.



# 2 Digital Participation

By 2023, 1 in 2 companies will generate more than 40% of their revenues from digital products and services.<sup>3</sup>

## Macro Trend

Digitizing trade and accessing digital marketplaces (digital B2B commerce) where goods and services are exchanged in the digital economy.

Leveraging ecosystem and network effects, optimizing collaboration and compounding business value.

## Implications

Forces the need to interconnect digital infrastructure with research communities, supply chains and marketplaces. This enables composable business models.

IT becomes a business technology broker across an ecosystem of digital services and facilitates collaboration with network effects.



# 3 Digital Proximity

By 2028, the global infrastructure edge footprint will be 40 gigawatts, with 63% supporting healthcare, manufacturing, energy, retail and transportation.<sup>4</sup>

## Macro Trend

Digitizing the front office for localized and personalized delivery—to customers, employees and operations where business happens.

Digitizing the physical world for the physical infrastructure and operations intelligence needed to optimize commercial and environmental impact.

## Implications

Requires a digital infrastructure close to, and interconnecting with, experiences, things (IoT) and intelligent operations. This is where digital meets the physical world.

IT becomes fully integrated with operational technology (OT) to balance transparency, efficiency and sustainability with greater mobility, security and control.



# 4 Sustainability

90% of executives believe sustainability is important, but only 60% of organizations have sustainability strategies.<sup>5</sup>

## Macro Trend

Companies are now being held accountable by investors, employees and customers to demonstrate progress on Environmental, Social and Governance (ESG) commitments.

## Implications

Requires setting and measuring sustainability goals through science-based targets and key initiatives. IT must subscribe to the most efficient commodity services from sustainability leaders. Sustainability has become such a priority that organizations must include a dedicated section to this topic in all RFIs moving forward.



# Interconnection Strategy

Leaders leverage interconnection to scale and remove distance, thereby improving their competitive advantage to realize outstanding results.

## Digital Requires Interconnection Oriented Architecture®

Forward-thinking businesses have been designing their digital infrastructure around points of interconnection (the direct private exchange of data with each other) for years. This is a consistent pattern called Interconnection Oriented Architecture (IOA®), and it is key to business growth as interconnection becomes the backbone of the digital economy.

### History of IOA

Digital leaders and Network Service Providers have been following IOA principles for 20 years to create and scale the internet.

Today, digital leaders across all industries are using this architecture and leveraging interconnection to deploy a digital core, digital ecosystems and digital edge to gain a competitive advantage. In the GXI benchmark data, locations that are primarily used to provision capacity between networks, clouds, XaaS providers and organization digital infrastructure have been identified as core metros. Edge metros are those locations primarily used as the interface between the physical and digital worlds as organizations connect to customers, edge devices and places of business and participate in local marketplaces.

### Flexibility and Simplicity Amid Rapid Change

Today, implementations can be entirely edge-to-cloud automated, with simplified management of infrastructure services provided in flexible compute models. This software-defined infrastructure means organizations can rewire and reconfigure business infrastructure when demand changes (as with sudden geopolitical and economic uncertainties). Digital leaders easily move into new markets, shift capacity where it's needed, add or reduce capacity to support revenue growth, and more—all with low risk and a localized advantage. It's not surprising that IOA has been such an enduring architecture in these times of rapid digital business change.

**The GXI Report includes the observed strategies and deployment data of how global digital leaders, from all industries, are implementing their digital infrastructure.**



## The Network as the Foundation

Instead of connecting remotely distant things back to a centralized service or cloud **(Fig.1)**, IOA is about removing the distance and directly interconnecting those services close enough to optimize bi-directional traffic exchange **(Fig 2)**.

This architecture is designed for digital business, interconnecting digital services and ecosystems in proximity to where business happens. At the same time, it keeps pace with the exponential growth of data, and it unlocks localized control over speed, scale, choice, security, reliability and efficiency.

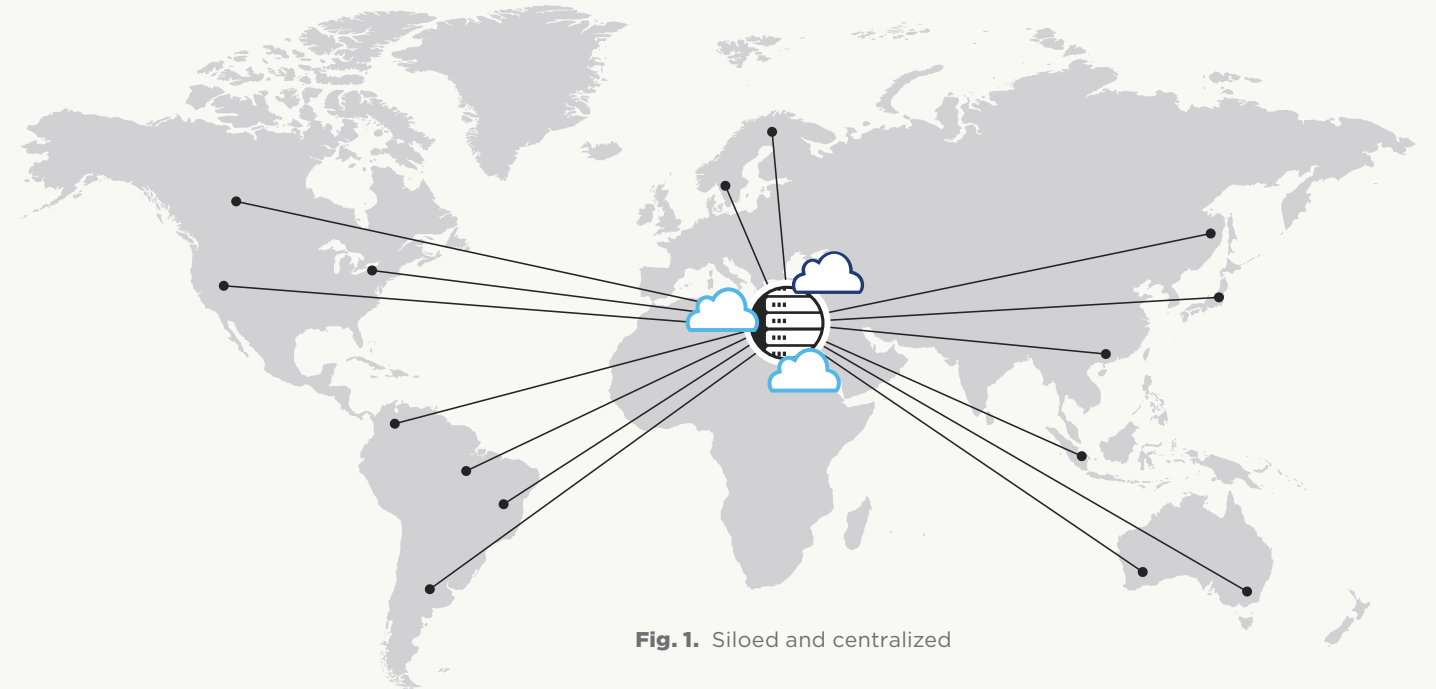


Fig. 1. Siloed and centralized

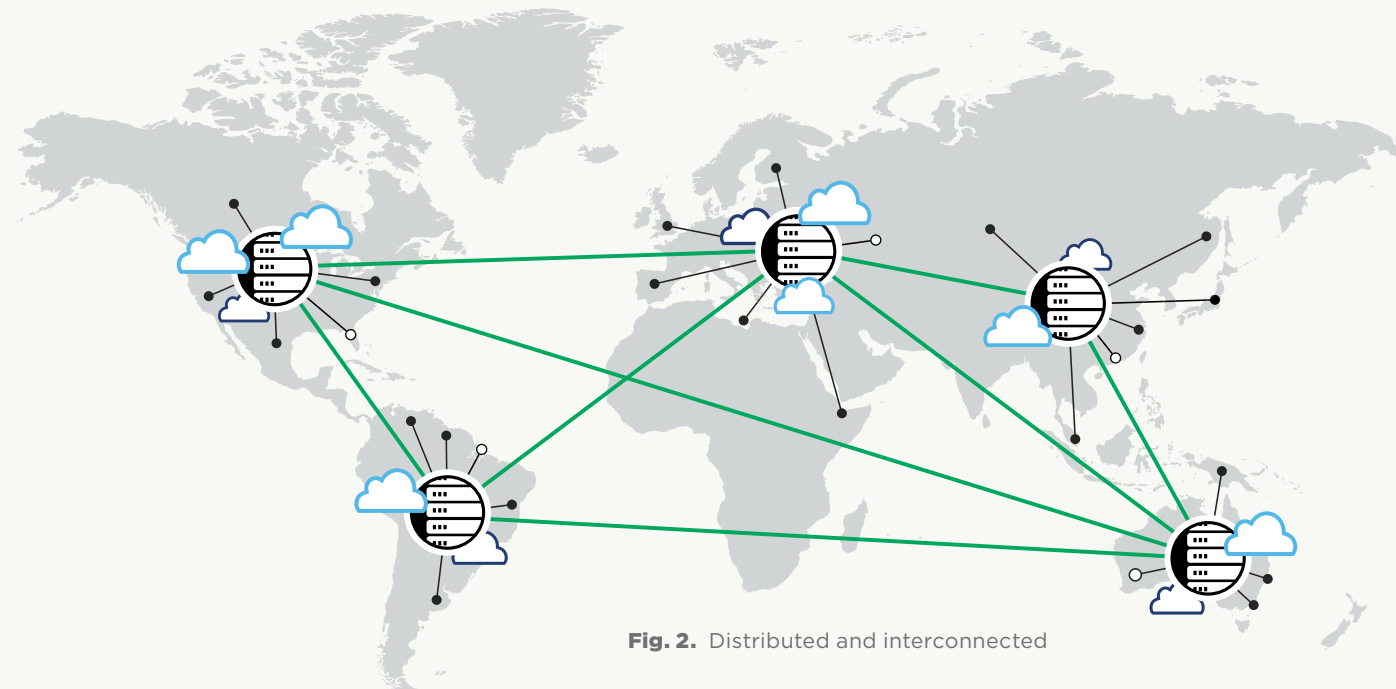


Fig. 2. Distributed and interconnected



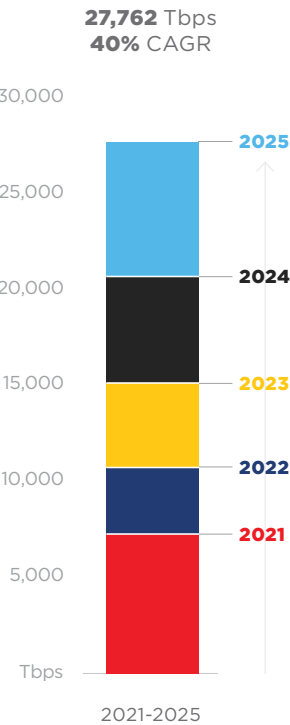
# Forecast & Benchmark

Global deployment and market research data deliver a geographic breakdown of interconnection bandwidth growth and interconnection benchmark insights.

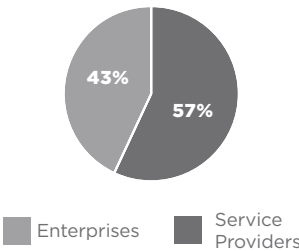
# Global Forecast: Industry

The digital economy continues to accelerate globally past economic and supply chain disruption. Global interconnection bandwidth is forecast to grow at a 40% five-year CAGR reaching 27,762 Tbps, which is equivalent to 110 zettabytes of data exchanged annually.

## Global Growth



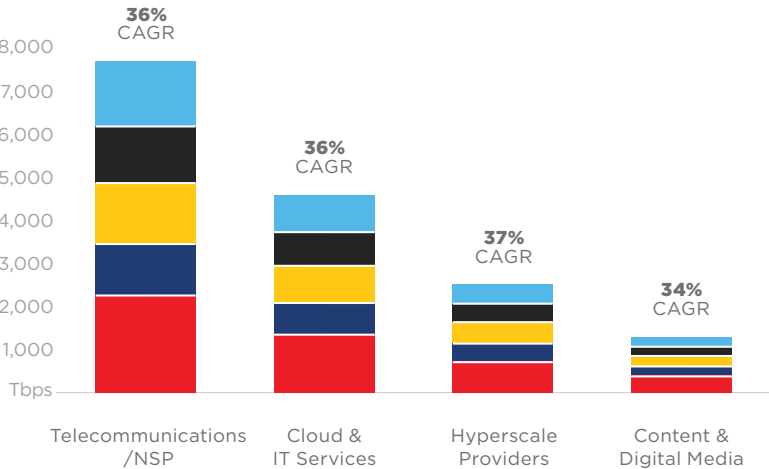
## Global Mix



## Service Providers

### Regional forecast

Service Providers are forecast to consume 57% of interconnection bandwidth (15,897 Tbps). Network Providers consume the most bandwidth, and Hyperscale Providers are the fastest growing.



	Core	Edge	Total
Average # of Metros	8	9	17
Average # of DI* Cabinets	405	225	630
Annual DI Growth Rate	Leaders are growing edge 1.5x faster than the digital core		

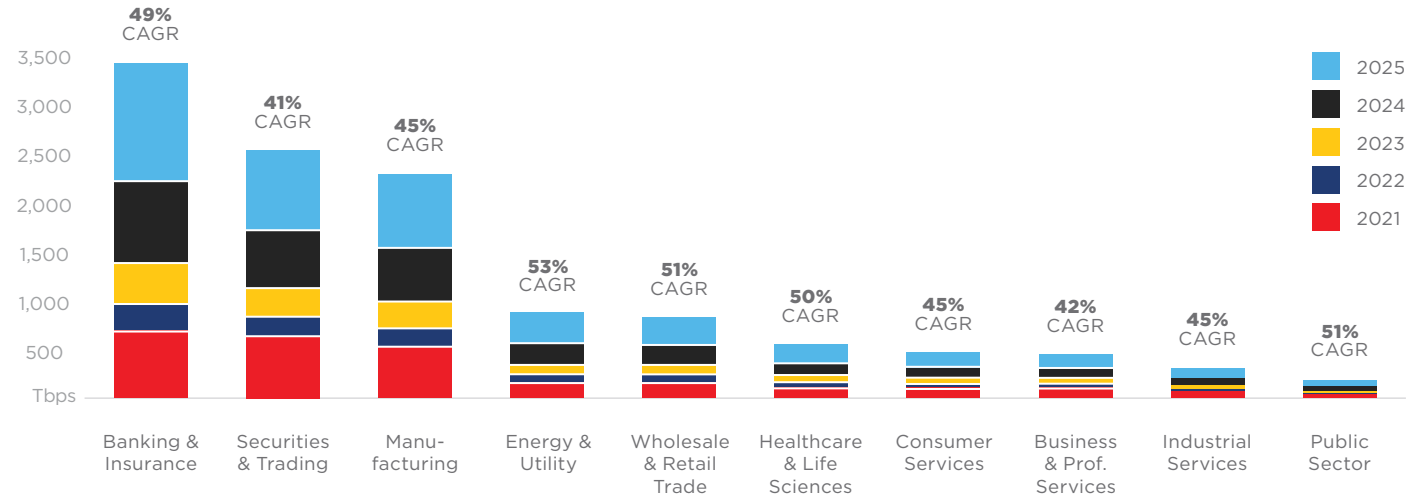
### Digital infrastructure

Service Providers show the greatest distribution of their digital infrastructure and the largest percent of edge locations. While the majority of cabinets are in core locations, the edge infrastructure is growing 50% faster.

## Enterprises

### Regional forecast

While Enterprise industries are forecast to consume 43% of interconnection bandwidth, they are once again outpacing Service Providers. Returning to pre-pandemic growth rates, Enterprises are showing the greatest acceleration in growth in 2024 and 2025.



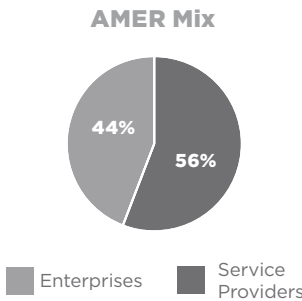
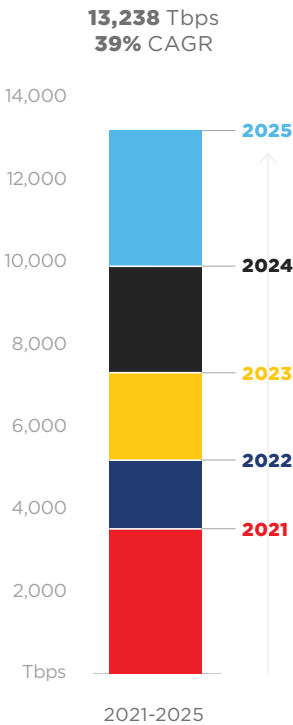
	Core	Edge	Total
Average # of Metros	6	4	10
Average # of DI Cabinets	140	50	190
Annual DI Growth Rate	Leaders are growing edge 2.3x faster than the digital core		



# AMER Forecast: Industry

The Americas region continues to lead the deployment of interconnection bandwidth and is forecast to grow at a 39% CAGR through 2025 to reach 13,238 Tbps, equivalent to 52 zettabytes of data exchanged annually. Enterprise sectors in the Americas are forecast to reach a higher annual deployment than Services Providers.

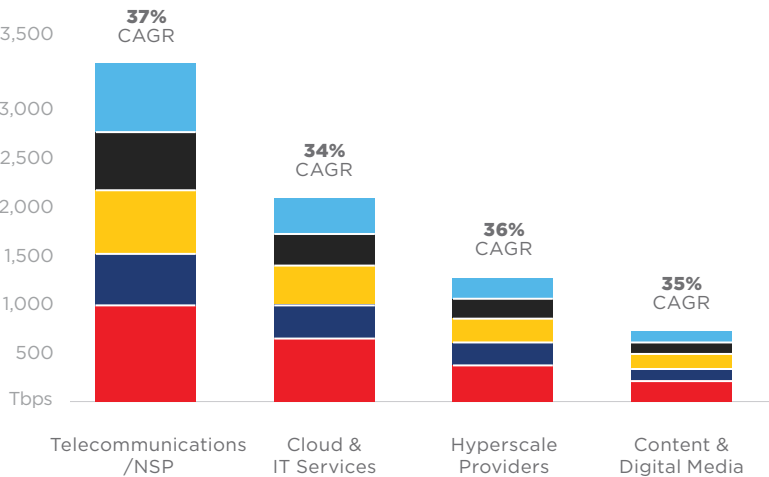
## Regional Growth



## Service Providers

### Regional forecast

Service Providers are forecast to consume 56% of interconnection bandwidth (7,478 Tbps). Network Providers are both the largest users of interconnection bandwidth and the fastest growing.



### Digital infrastructure

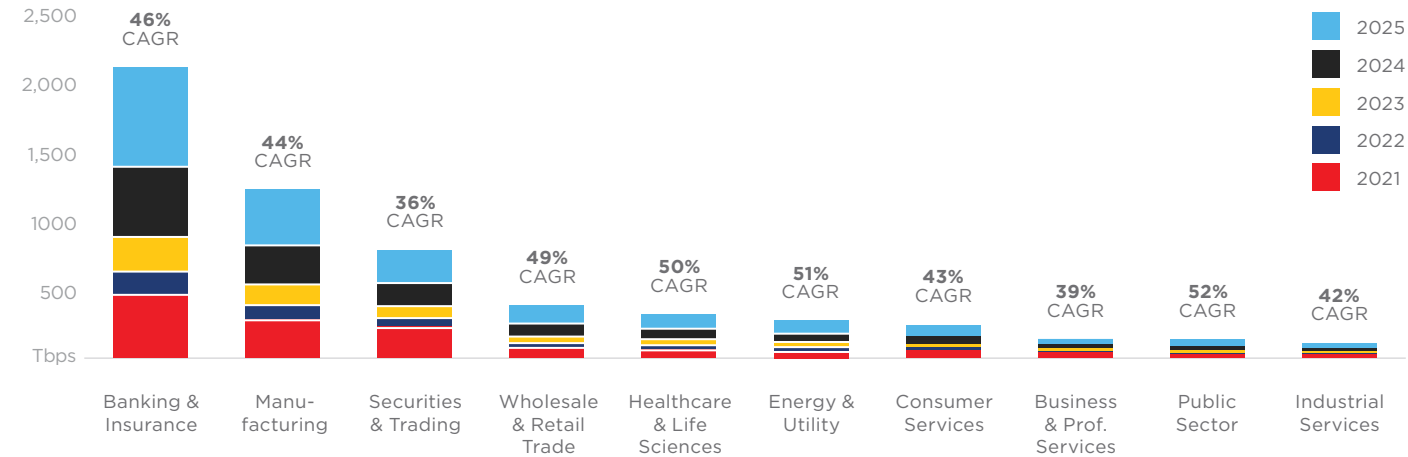
With a balanced deployment across an average of six locations, Providers are showing over 2x the rate of infrastructure growth at the edge. As Providers leverage 400/100G from core to edge, the last mile becomes the new bottleneck, driving an increased need for 5G.

	Core	Edge	Total
Average # of Metros	3	3	6
Average # of DI* Cabinets	115	85	200
Annual DI Growth Rate	Leaders are growing edge 2.4x faster than the digital core		

## Enterprises

### Regional forecast

AMER industries are showing growth rates that indicate they are becoming digital providers. In 2025 Banking & Insurance will deploy more interconnection bandwidth than Network Providers, while Wholesale and Retail trade will deploy more bandwidth than Content & Digital Media.



### Digital infrastructure

Enterprise leaders have expanded their edge to equal the number of locations as the core. While two-thirds of Enterprise digital infrastructure is at the core, digital edge infrastructure is growing nearly 3x faster.

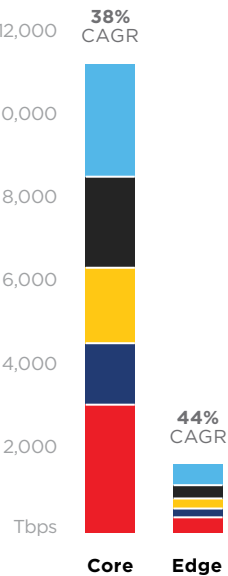
	Core	Edge	Total
Average # of Metros	2	2	4
Average # of DI Cabinets	50	20	70
Annual DI Growth Rate	Leaders are growing edge 3x faster than the digital core		



# AMER Forecast: Distribution

The large footprint of the Network, Cloud and Financial Services ecosystems continues to drive the majority of interconnection bandwidth, with 86% of bandwidth distributed across core locations. LATAM is showing the fastest growing core and edge locations.

## Interconnection Bandwidth

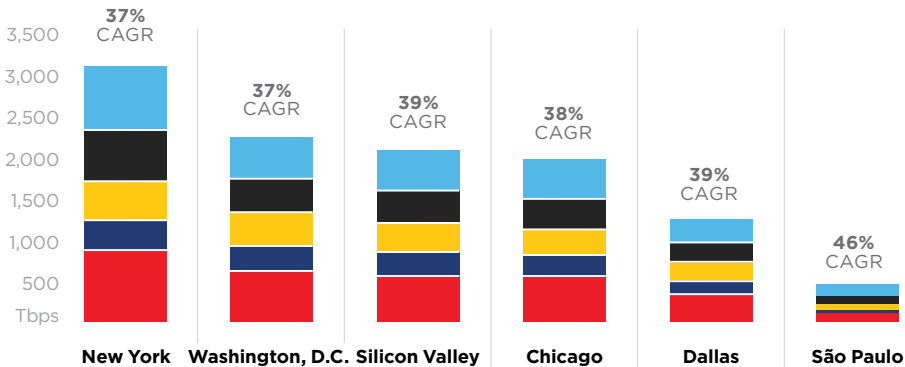


## Core

### Interconnection forecast

New York has 35% of the forecasted interconnection bandwidth; most destinations are business and ecosystem partners. Conversely, in D.C., Cloud & IT and Hyperscale Providers make up 33% of the forecasted bandwidth; most destinations are Network Providers.

### AMER Core Growth



### Leading metros

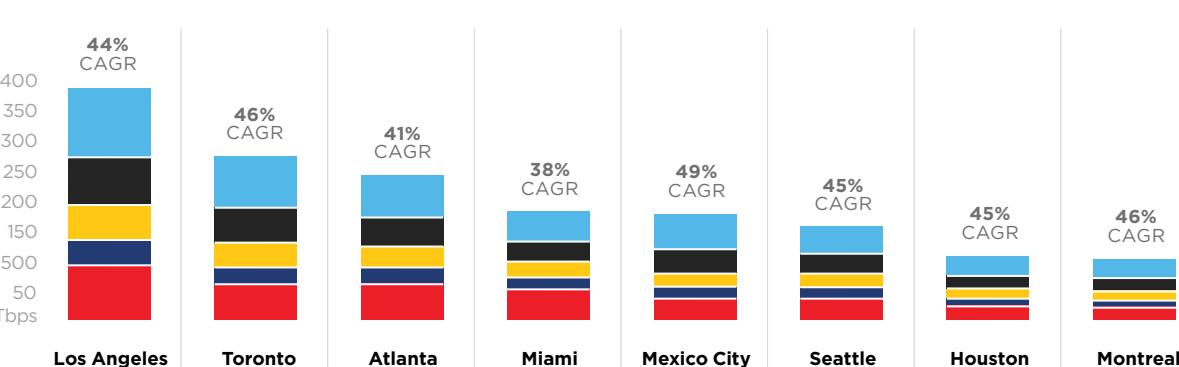
Sao Paulo is the fastest growing core metro with a 46% 5-yr. CAGR, followed by Silicon Valley and Dallas. In all three of these metros, Enterprise adoption has increased to over 20% of the forecasted interconnection bandwidth.

## Edge

### Regional forecast

Hyperscale Providers continue to show growth across all edge locations. Los Angeles continues to be an edge network hub, while Toronto and Mexico City are mature Financial Service hubs, and both locations show nearly 20% of bandwidth being driven by B2B partner access.

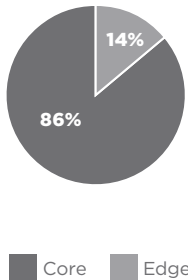
### AMER Edge Growth



### Leading metros

Los Angeles is the largest edge metro in AMER, with Mexico City the fastest growing.

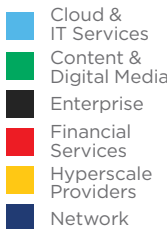
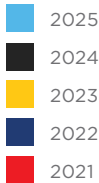
## AMER Core Edge Mix



## Vertical Mix Forecast in 2025



## % Interconnection Mix - 2022 Benchmark\*

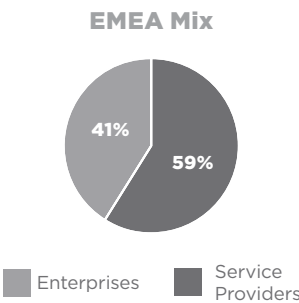
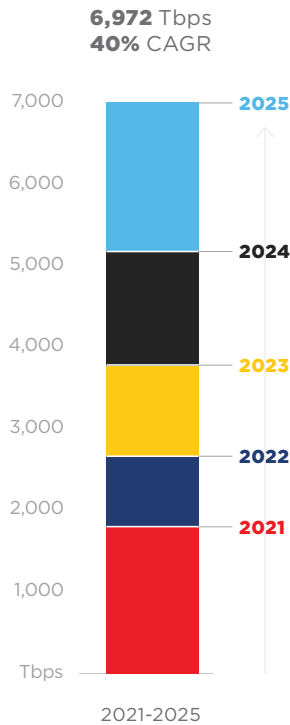




# EMEA Forecast: Industry

Europe, Middle East and Africa makes up 25% of the global interconnection forecast and is predicted to grow at a 40% CAGR through 2025, reaching 6,972 Tbps, equivalent to 28 zettabytes of data exchanged annually. EMEA digital infrastructure deployment is 20-30% larger than other regions showing a current focus on hybrid deployments.

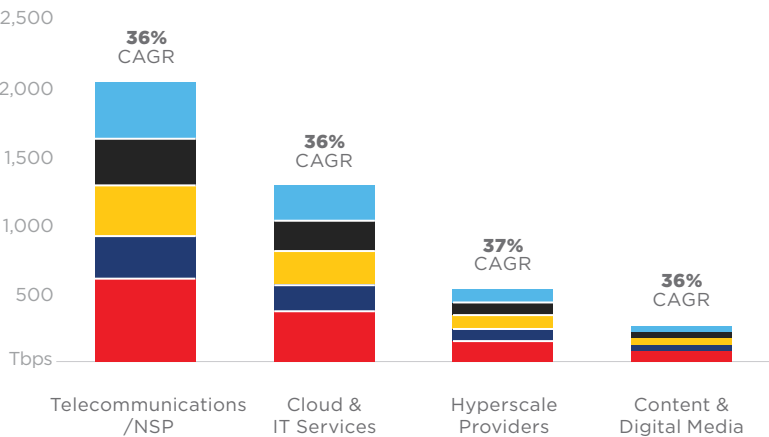
## Regional Growth



## Service Providers

### Regional forecast

Service Providers are forecast to consume 59% of interconnection bandwidth (4,091 Tbps). All of the provider segments are growing at a consistent 36% CAGR, and Network Providers continue to be the largest users of interconnection bandwidth.



	Core	Edge	Total
Average # of Metros	2	4	6
Average # of DI* Cabinets	160	80	240
Annual DI Growth Rate	Leaders are growing core 1.3x faster than the digital edge		

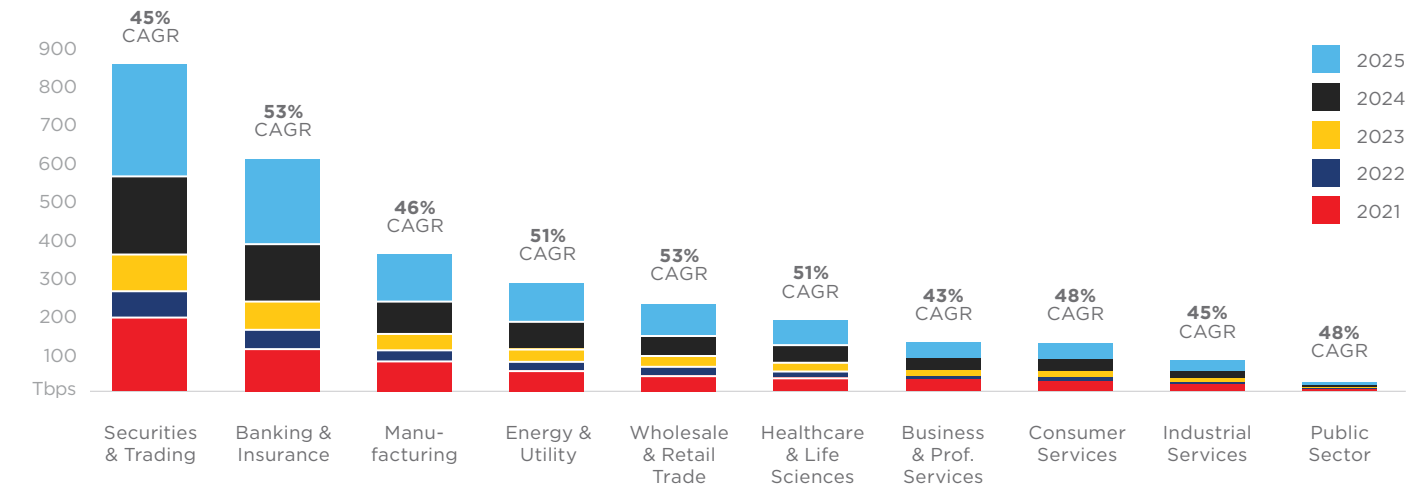
### Digital infrastructure

EMEA Service Providers are on average distributed across six locations, and two-thirds of these are at the digital edge. EMEA leads all other regions in the average deployment of digital infrastructure.

## Enterprises

### Regional forecast

Enterprise industries across EMEA are accelerating to peak growth rates in 2024 as organizations finally leave the pandemic behind. Securities & Trading is the largest consumer of interconnection bandwidth and will add more bandwidth than Cloud & IT, Hyperscale Providers or Content & Digital Media.



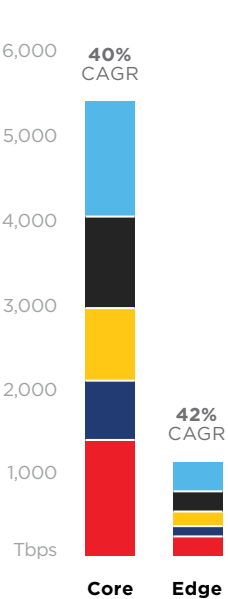
	Core	Edge	Total
Average # of Metros	2	2	4
Average # of DI Cabinets	60	30	90
Annual DI Growth Rate	Leaders are growing core 1.2x faster than the digital edge		



# EMEA Forecast: Distribution

Core locations in EMEA are growing at a 40% CAGR, making up 77% of the region’s forecast. The top edge locations are expanding capacity 8-10% faster than the core, with the fastest growth in the metros adjacent to subsea mooring locations.

## Interconnection Bandwidth

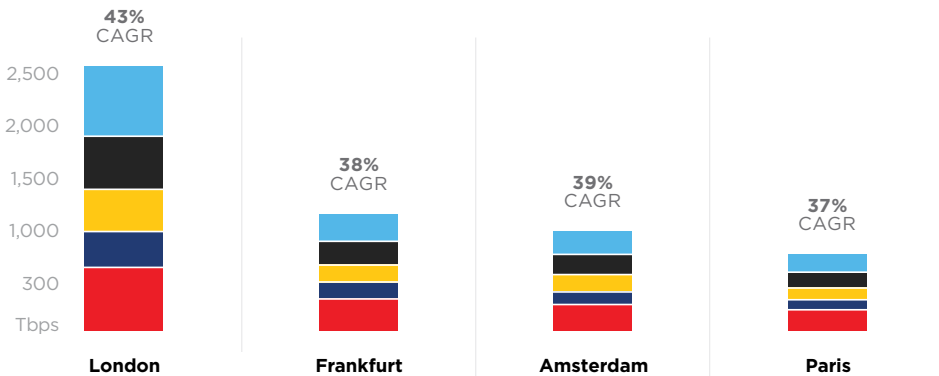


## Core

### Interconnection forecast

At over 2x the capacity of any other location in EMEA, London is the largest interconnection hub in EMEA. London is led by a combination of Network and Financial Services demand for capacity. Frankfurt is the second largest metro and shows growth driven by Enterprise and industry demand.

### EMEA Core Growth



### Leading metros

In addition to being the largest, London is also the fastest growing core metro with a 43% CAGR. Paris and London show the largest percentage of connection to business partners, while Amsterdam shows significant Hyperscale growth.

## Edge

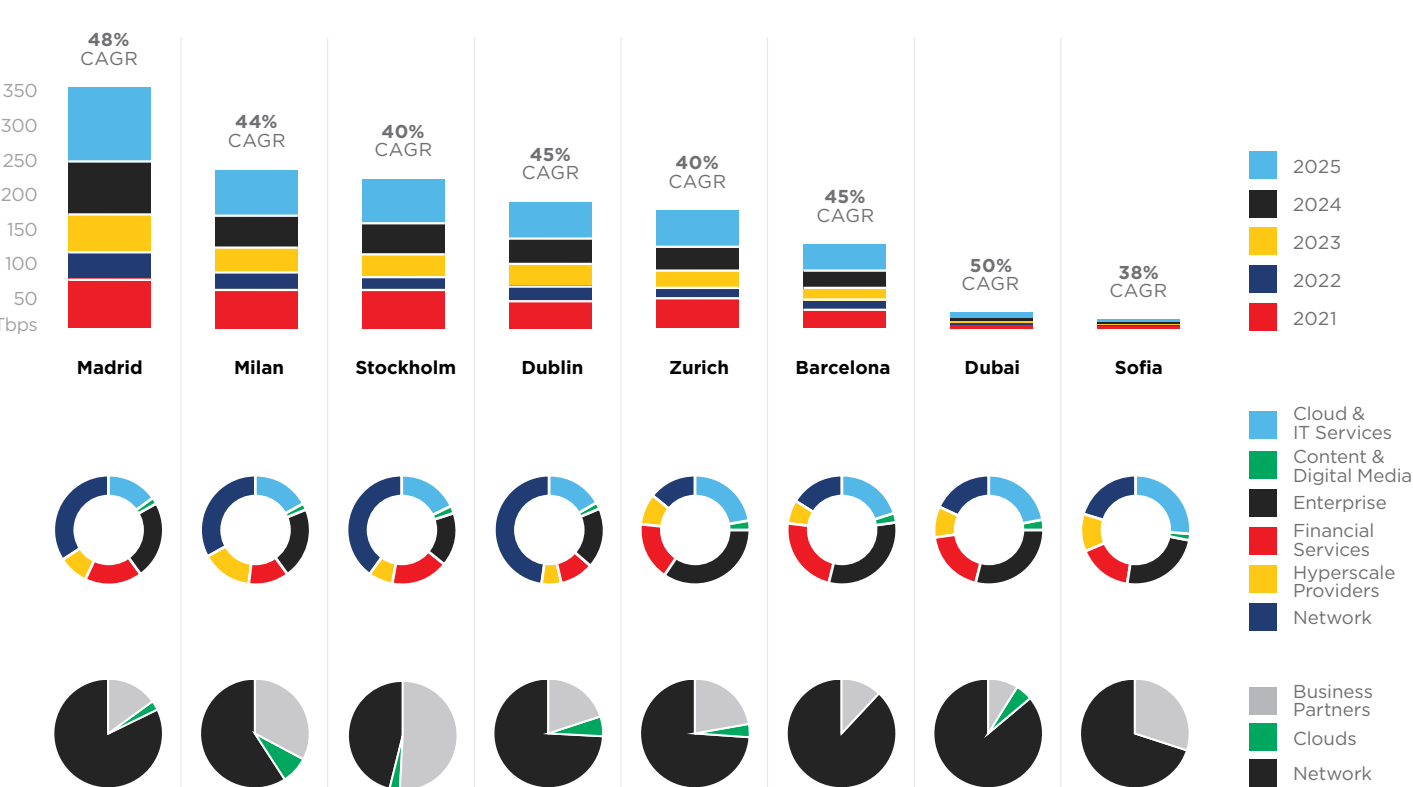
### Regional forecast

With direct proximity to undersea mooring locations, Madrid is a strategic location for network access and is the largest edge metro. Milan is forecast to overtake Stockholm as the second largest edge metro, led by growth in Manufacturing and Energy & Utility and showing significant Hyperscale Provider expansion.

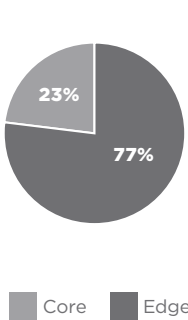
### Leading metros

Dubai, Madrid and Barcelona are the fastest growing edge locations with Network access as the primary use case. Stockholm is unique in EMEA with the largest percent of connection to business partners, driven by Healthcare & Life Sciences, Wholesale & Retail Trade, and Consumer Services.

### EMEA Edge Growth



## EMEA Core Edge Mix



## Vertical Mix Forecast in 2025



## % Interconnection Mix - 2022 Benchmark\*



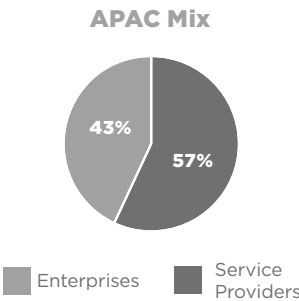
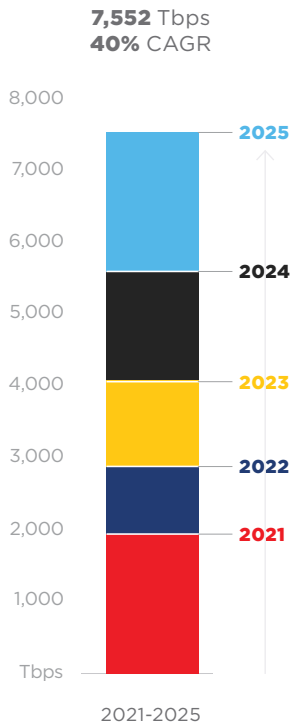




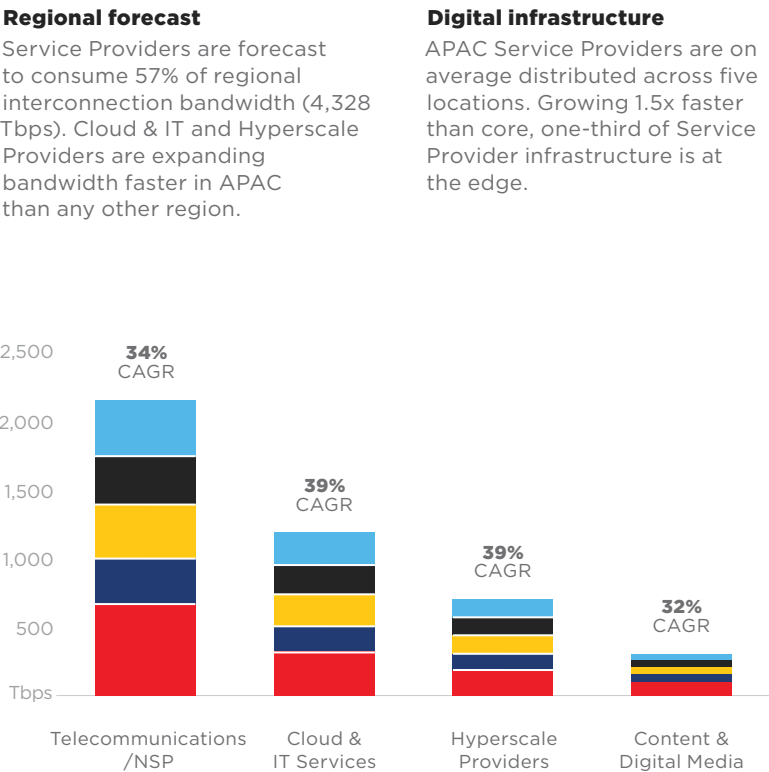
# APAC Forecast: Industry

At 27% of the global interconnection forecast, Asia-Pacific is predicted to grow at a 40% CAGR through 2025, reaching 7,552 Tbps, equivalent to 30 zettabytes of data exchanged annually. With the fastest growing Cloud & IT and Hyperscale Providers, APAC’s core locations support the larger population centers and denser ecosystems.

## Regional Growth

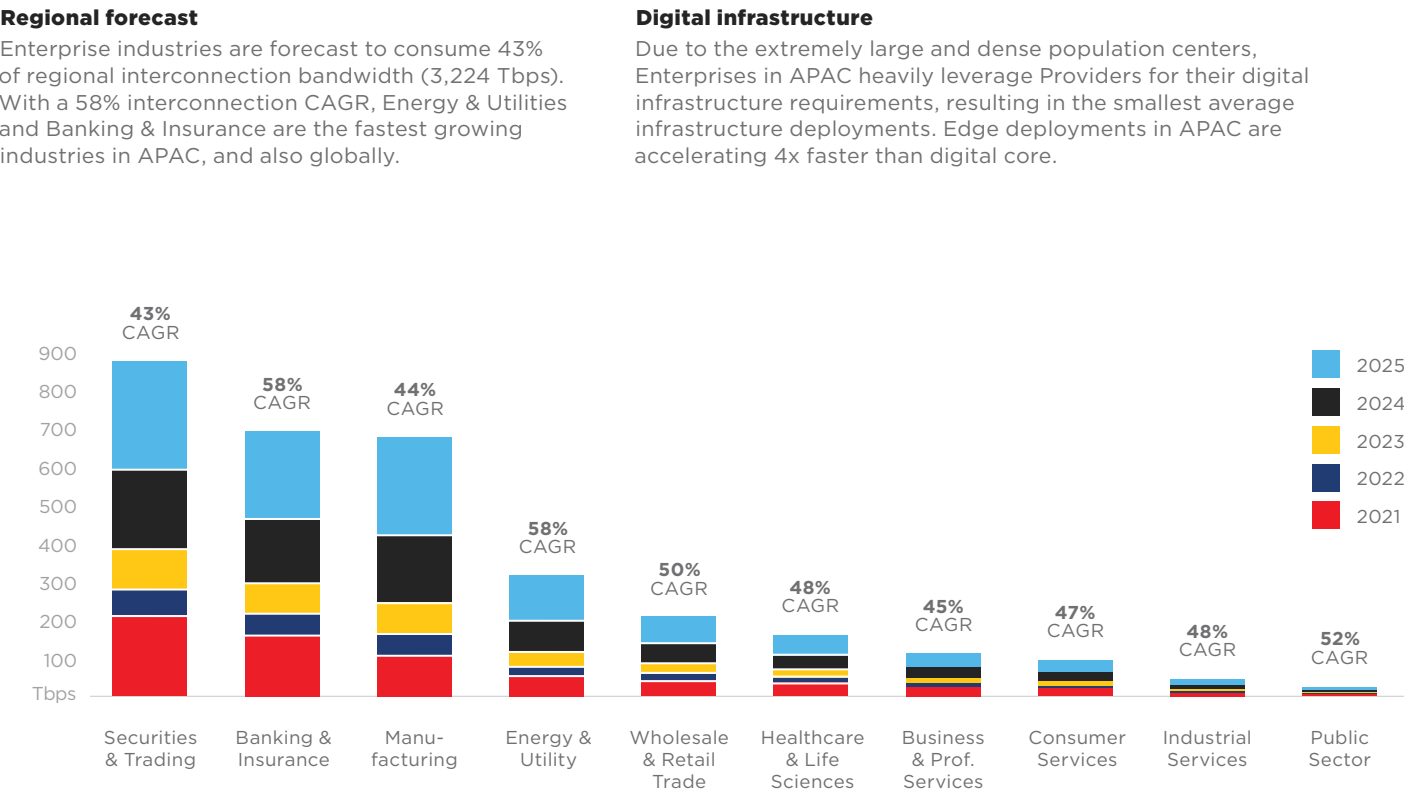


## Service Providers



	Core	Edge	Total
Average # of Metros	3	2	5
Average # of DI* Cabinets	130	65	195
Annual DI Growth Rate	Leaders are growing edge 3.9x faster than the digital core		

## Enterprises



	Core	Edge	Total
Average # of Metros	2	1	3
Average # of DI Cabinets	30	15	45
Annual DI Growth Rate	Leaders are growing edge 3.9x faster than the digital core		

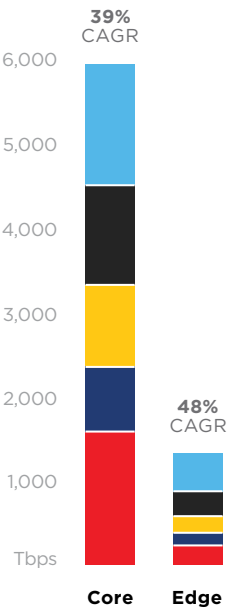




# APAC Forecast: Distribution

At 78% of the region’s forecast, core locations in APAC are growing at a 39% CAGR. Previously classified as an edge, Shanghai is forecast to reach 801 Tbps by 2025. With a 44% CAGR from a strong mix of Cloud & IT, Hyperscale Provider and Enterprise growth, Shanghai has now been reclassified as a digital core location.

## Interconnection Bandwidth



## Core

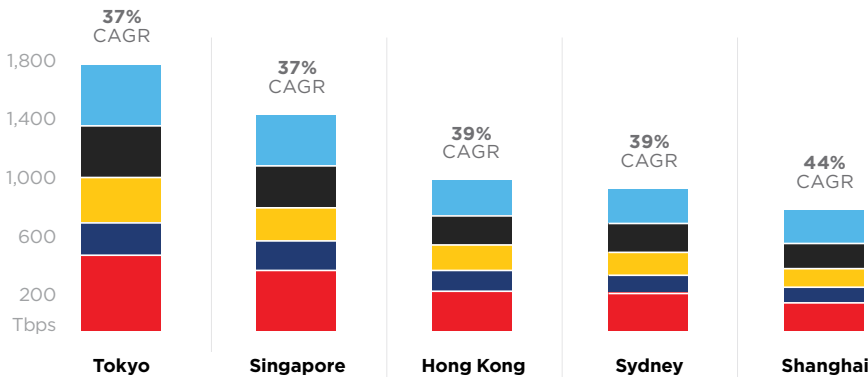
### Interconnection forecast

Tokyo continues to lead the region in interconnection growth and is forecast to reach 1,758 Tbps by 2025. With growth led by Financial Services, Tokyo is also showing the largest percent mix by Hyperscale Providers.

### Leading metros

Shanghai, the newest addition to the core locations, is showing the fastest growth at 44% CAGR. Despite the geopolitical landscape, Hong Kong continues to be one of the fastest growing metros.

### APAC Core Growth



## Edge

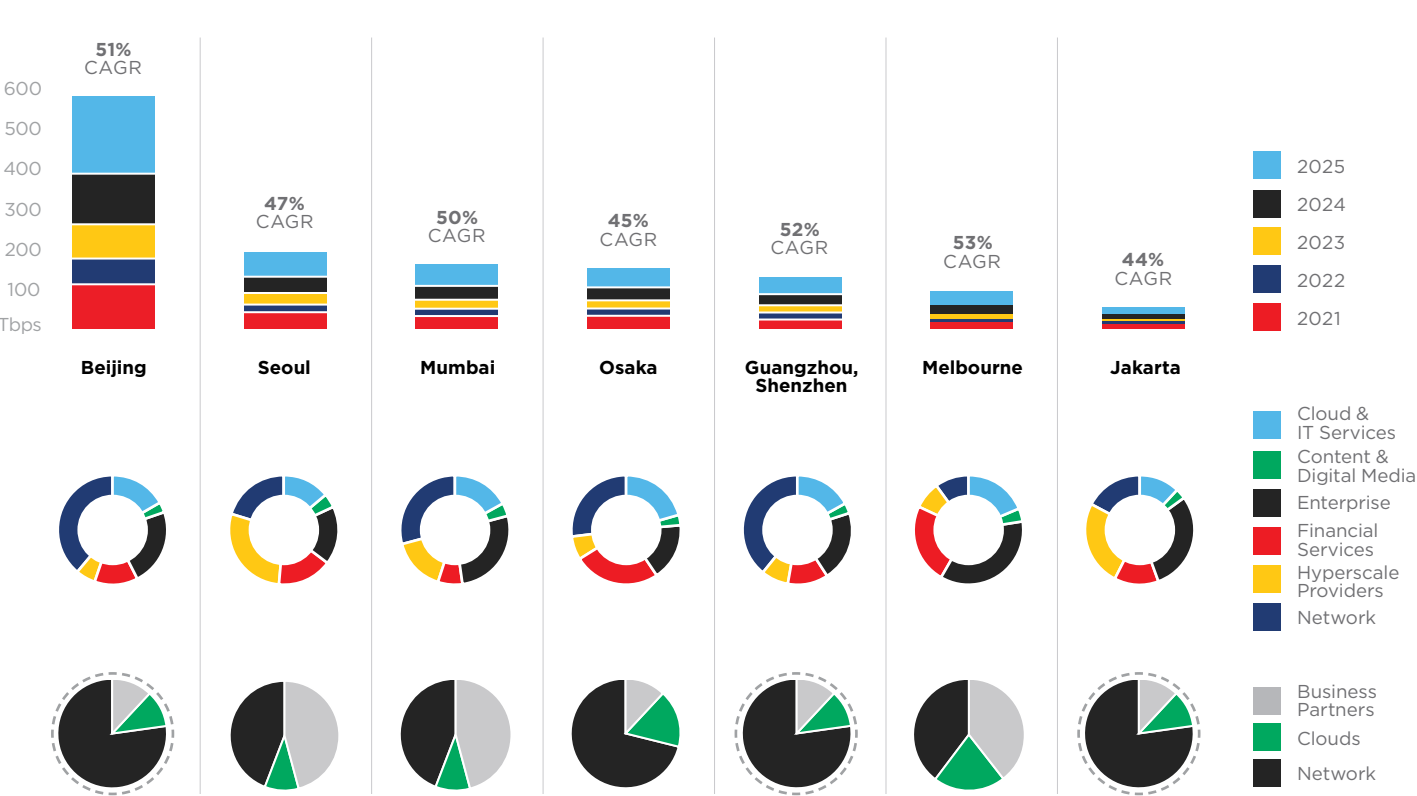
### Regional forecast

At 3x the bandwidth of other edge locations, Beijing is the largest edge metro. Seoul continues to show the largest mix of Hyperscale Providers of any metro globally.

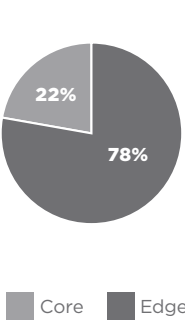
### Leading metros

Melbourne is the fastest growing edge metro, with a 53% CAGR, and shows the largest percent mix of interconnection from Enterprise sectors. One of the largest population centers, Beijing shows nearly as much growth in 2025 as the rest of the edge locations in the region combined.

### APAC Edge Growth



### APAC Core Edge Mix



### Vertical Mix Forecast in 2025



### % Interconnection Mix - 2022 Benchmark\*





# Methodology: Creating the GXI

The GXI is composed of two primary components: global deployment data and market research data, including a proprietary study, supporting the interconnection forecasts and strategy.<sup>6</sup>



## Interconnection Profiles

Digital deployments across every region and major metropolitan area were analyzed to understand average interconnection profiles, including both local and multinational deployments across geographies.

The research sample was stratified across industries and organization size segments, providing a comprehensive breakdown of colocation subscribers and their interconnections, which were validated against digital infrastructure benchmarks.<sup>7</sup>



## Market Conditions

Market research assessed local and regional market conditions, including macro economic trends, market demographics and industry concentrations, to determine their impact on bandwidth provisioning.<sup>8</sup>

A primary research study was also conducted, analyzing the growth of interconnection investments by organizations across the carrier-neutral data center market. Average interconnections per organization were applied to global counts of colocation participants to identify the current volume of interconnections worldwide. This allowed for the development of a set of indicators and market condition filters to assist in producing tailored predictions.



## Predictive Models

Predictive models combined these components to build an interconnection bandwidth growth forecast by region and market segment. Key demand drivers of digital business that force the distribution and interconnection of IT components within the proximity of users were analyzed.

Each variable was weighted to factor in its impact in driving digital business transformation. The provisioned bandwidth, as measured in gigabits per second, was estimated for interconnections used by organizations in this study.<sup>9</sup>

<sup>6</sup>This report contains forward-looking statements that involve known and unknown risks and uncertainties that may cause actual events or results to differ materially from the estimates or the results implied or expressed in such forward-looking statements.

<sup>7</sup>Deployment data includes an analysis of >500 organizations that deployed >5,000 implementations worldwide between Q12016 and Q12022. 44% of the studied organizations are F500/G2000, with a mix of local and multinational deployments across the regions (42% AMER, 36% EMEA, 22% Asia-Pacific).

<sup>8</sup>Used technology market intelligence from data sources including Synergy Research Group, IDC and Gartner.

<sup>9</sup>The methodology accounts for both physical and virtual interconnections, including those participants whose infrastructure may sit outside of a carrier-neutral facility but still accesses the fabric of a carrier-neutral facility via SDN. Average interconnections per organizations were applied to global counts of colocation participants to identify the current volume of interconnections, validated against digital infrastructure growth benchmarks.



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# Forecast

## Global

Vertical	2021	2022	2023	2024	2025	CAGR	Mix
Enterprise	2,586	3,540	4,962	7,818	11,865	46%	43%
Service Provider	4,680	7,197	10,210	12,871	15,897	36%	57%
Total	7,266	10,737	15,172	20,689	27,762	40%	100%

Service Provider	2021	2022	2023	2024	2025	CAGR	Mix
Telecommunications	2,237	3,404	4,811	6,108	7,609	36%	27%
Cloud & IT Services	1,341	2,052	2,916	3,672	4,533	36%	16%
Hyperscale Providers	711	1,133	1,625	2,034	2,478	37%	9%
Content & Digital Media	391	608	858	1,057	1,277	34%	5%
Total	4,680	7,197	10,210	12,871	15,897	36%	57%

Enterprise	2021	2022	2023	2024	2025	CAGR	Mix
Banking & Insurance	683	953	1,367	2,197	3,398	49%	12%
Securities & Trading	629	824	1,116	1,701	2,516	41%	9%
Manufacturing	522	705	974	1,518	2,276	45%	8%
Energy & Utility	158	234	338	555	871	53%	3%
Wholesale & Retail Trade	160	230	331	534	821	51%	3%
Healthcare & Life Sciences	108	154	221	356	548	50%	2%
Consumer Services	104	141	197	308	462	45%	2%
Business & Professional Services	108	143	194	296	439	42%	2%
Industrial Services	69	92	129	202	303	45%	1%
Public Sector	35	49	73	118	181	51%	1%
Other Enterprises	10	15	22	33	50	50%	<1%
Total	2,586	3,540	4,962	7,818	11,865	46%	43%

Region	2021	2022	2023	2024	2025	CAGR	Mix
Americas	3,531	5,203	7,330	9,924	13,238	39%	48%
APAC	1,943	2,884	4,087	5,608	7,552	40%	27%
EMEA	1,792	2,650	3,755	5,157	6,972	40%	25%
Total	7,266	10,737	15,172	20,689	27,762	40%	100%



Benchmark  
Global

Breakdown by Industry

	Core							Edge						
	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners
Telecommunications	9	440	1,240	45%	9%	47%	189	11	240	520	51%	16%	33%	77
Cloud & IT Services	7	570	405	56%	13%	31%	61	8	355	200	57%	21%	22%	36
Banking & Insurance	6	180	265	24%	9%	66%	71	4	70	65	45%	26%	28%	21
Manufacturing	6	150	150	56%	25%	19%	27	4	100	65	45%	29%	26%	16
Securities & Trading	6	260	415	29%	7%	64%	94	5	50	70	46%	20%	34%	23
Content & Digital Media	8	215	300	57%	11%	32%	62	8	110	160	58%	24%	18%	40
Business & Professional Services	6	110	70	58%	20%	21%	22	5	50	60	55%	23%	22%	19
Energy & Utilities	6	135	140	56%	17%	27%	33	4	100	50	42%	21%	36%	17
Wholesale & Retail	7	220	170	60%	18%	22%	30	4	65	80	52%	31%	16%	23
Healthcare & Life Sciences	5	75	70	55%	26%	19%	23	3	50	40	53%	26%	21%	13
Consumer Services	5	70	100	60%	22%	18%	17	3	10	10	78%	22%	0%	5
Industrial Services	6	100	125	61%	19%	20%	28	4	35	50	55%	21%	24%	12

Top Six Metros by Industry	1st	2nd	3rd	4th	5th	6th
Telecommunications	Washington, D.C.	Silicon Valley	Frankfurt	London	Singapore	Sydney
Cloud & IT Services	Washington, D.C.	Silicon Valley	London	Amsterdam	Singapore	Sydney
Banking & Insurance	Washington, D.C.	Chicago	London	Frankfurt	Singapore	Hong Kong
Manufacturing	Washington, D.C.	Silicon Valley	Frankfurt	London	Singapore	Tokyo
Securities & Trading	New York	Chicago	London	Frankfurt	Singapore	Tokyo
Content & Digital Media	Silicon Valley	Washington, D.C.	Amsterdam	London	Sydney	Singapore
Business & Professional Services	Washington, D.C.	New York	London	Paris	Hong Kong	Sydney
Energy & Utility	Dallas	Chicago	London	Amsterdam	Singapore	Tokyo
Wholesale & Retail	Washington, D.C.	Silicon Valley	London	Frankfurt	Singapore	Tokyo
Healthcare & Life Sciences	Washington, D.C.	Silicon Valley	London	Frankfurt	Singapore	Tokyo
Consumer Services	Washington, D.C.	Dallas	London	Frankfurt	Singapore	Tokyo
Industrial Services	Washington, D.C.	Chicago	London	Frankfurt	Singapore	Hong Kong



Forecast  
Americas

Vertical	2021	2022	2023	2024	2025	CAGR	Mix
Enterprise	1,322	1,785	2,473	3,839	5,760	44%	44%
Service Provider	2,209	3,418	4,857	6,085	7,478	36%	56%
Total	3,531	5,203	7,330	9,924	13,238	39%	100%

Service Provider	2021	2022	2023	2024	2025	CAGR	Mix
Telecommunications	972	1,498	2,148	2,742	3,438	37%	26%
Cloud & IT Services	650	986	1,381	1,706	2,070	34%	16%
Hyperscale Providers	372	595	847	1,045	1,255	36%	9%
Content & Digital Media	215	339	481	592	715	35%	5%
Total	2,209	3,418	4,857	6,085	7,478	36%	56%

Enterprise	2021	2022	2023	2024	2025	CAGR	Mix
Banking & Insurance	464	631	885	1,392	2,115	46%	16%
Manufacturing	282	382	529	822	1,226	44%	9%
Securities & Trading	227	287	374	546	785	36%	6%
Wholesale & Retail Trade	77	109	156	251	384	49%	3%
Healthcare & Life Sciences	63	90	130	208	319	50%	2%
Energy & Utility	52	77	110	176	271	51%	2%
Consumer Services	58	77	106	163	242	43%	2%
Business & Professional Services	41	53	70	104	151	39%	1%
Public Sector	26	37	55	89	137	52%	1%
Industrial Services	27	35	48	74	109	42%	1%
Other Enterprises	5	7	10	14	21	43%	<1%
Total	1,322	1,785	2,473	3,839	5,760	44%	44%

Metros	2021	2022	2023	2024	2025	CAGR	Mix
Core	3,037	4,473	6,280	8,431	11,099	38%	84%
Edge	375	547	787	1,121	1,613	44%	12%
Other	119	183	263	372	526	45%	4%
Total	3,531	5,203	7,330	9,924	13,238	39%	100%

Core Metros	2021	2022	2023	2024	2025	CAGR	Mix
New York	874	1,237	1,702	2,321	3,108	37%	23%
Washington, D.C.	627	932	1,317	1,736	2,237	37%	17%
Silicon Valley	563	851	1,208	1,603	2,083	39%	16%
Chicago	542	802	1,120	1,502	1,973	38%	15%
Dallas	332	504	718	957	1,247	39%	9%
Sao Paulo	99	147	215	312	451	46%	3%
Total	3,037	4,473	6,280	8,431	11,099	38%	84%

Edge Metros	2021	2022	2023	2024	2025	CAGR	Mix
Los Angeles	90	132	190	269	385	44%	3%
Toronto	59	86	127	186	271	46%	2%
Atlanta	60	86	122	170	240	41%	2%
Miami	49	69	95	129	180	38%	1%
Mexico City	36	53	77	115	176	49%	1%
Seattle	35	53	77	109	154	45%	1%
Houston	24	35	51	73	106	45%	1%
Montreal	22	33	48	70	101	46%	1%
Total	375	547	787	1,121	1,613	44%	12%



Benchmark  
Americas

Breakdown by Industry

	Core							Edge						
	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners
Telecommunications	3	135	410	47%	10%	44%	50	4	100	200	60%	11%	30%	29
Cloud & IT Services	3	140	185	53%	12%	34%	24	3	120	80	59%	18%	22%	13
Banking & Insurance	2	60	120	17%	7%	76%	30	2	30	40	42%	25%	33%	9
Manufacturing	2	60	50	54%	24%	21%	9	2	30	20	46%	35%	19%	6
Securities & Trading	2	110	240	21%	6%	73%	47	2	15	30	34%	17%	49%	11
Content & Digital Media	3	80	160	53%	11%	36%	24	3	35	85	63%	17%	20%	13
Business & Professional Services	2	25	20	57%	23%	20%	7	2	15	20	63%	22%	15%	6
Energy & Utilities	2	40	45	60%	19%	20%	10	2	25	30	61%	26%	13%	7
Wholesale & Retail	3	60	100	60%	23%	17%	12	2	10	30	56%	33%	11%	8
Healthcare & Life Sciences	2	35	40	56%	27%	17%	9	1	10	20	54%	31%	14%	5
Consumer Services	3	20	60	30%	40%	30%	10	3	10	10	78%	22%	0%	5
Industrial Services	2	40	40	63%	21%	16%	11	2	15	30	51%	25%	24%	6

Top Five Metros by Industry

	1st	2nd	3rd	4th	5th
Telecommunications	Washington, D.C.	Silicon Valley	Miami	Chicago	New York
Cloud & IT Services	Washington, D.C.	Silicon Valley	Chicago	Dallas	New York
Banking & Insurance	Washington, D.C.	Chicago	New York	Silicon Valley	Dallas
Manufacturing	Washington, D.C.	Silicon Valley	Chicago	Dallas	São Paulo
Securities & Trading	New York	Chicago	Washington, D.C.	Toronto	Silicon Valley
Content & Digital Media	Silicon Valley	Washington, D.C.	New York	Miami	Chicago
Business & Professional Services	Washington, D.C.	New York	Dallas	Chicago	Los Angeles
Energy & Utility	Dallas	Chicago	Silicon Valley	Rio de Janeiro	Miami
Wholesale & Retail	Washington, D.C.	Silicon Valley	Seattle	New York	Los Angeles
Healthcare & Life Sciences	Washington, D.C.	Silicon Valley	São Paulo	Chicago	New York
Consumer Services	Washington, D.C.	Dallas	Silicon Valley	Seattle	Philadelphia
Industrial Services	Washington, D.C.	Chicago	Dallas	Toronto	Silicon Valley







# Forecast

## EMEA

Vertical	2021	2022	2023	2024	2025	CAGR	Mix
Enterprise	595	830	1,174	1,871	2,881	48%	41%
Service Provider	1,197	1,820	2,581	3,286	4,091	36%	59%
Total	1,792	2,650	3,755	5,157	6,972	40%	100%

Service Provider	2021	2022	2023	2024	2025	CAGR	Mix
Telecommunications	600	906	1,274	1,624	2,028	36%	29%
Cloud & IT Services	370	560	801	1,024	1,280	36%	18%
Hyperscale Providers	150	235	337	426	523	37%	8%
Content & Digital Media	77	119	169	212	260	36%	4%
Total	1,197	1,820	2,581	3,286	4,091	36%	59%

Enterprise	2021	2022	2023	2024	2025	CAGR	Mix
Securities & Trading	191	258	359	562	855	45%	12%
Banking & Insurance	111	161	236	385	606	53%	9%
Manufacturing	79	108	150	235	358	46%	5%
Energy & Utility	55	79	111	181	283	51%	4%
Wholesale & Retail Trade	42	62	90	146	229	53%	3%
Healthcare & Life Sciences	36	51	73	119	185	51%	3%
Business & Professional Services	31	41	56	86	128	43%	2%
Consumer Services	26	37	52	83	126	48%	2%
Industrial Services	18	24	34	53	80	45%	1%
Public Sector	5	7	10	16	24	48%	<1%
Other Enterprises	1	2	3	5	7	63%	<1%
Total	595	830	1,174	1,871	2,881	48%	41%

Metro	2021	2022	2023	2024	2025	CAGR	Mix
Core	1,402	2,094	2,956	4,028	5,385	40%	77%
Edge	265	379	553	794	1,139	44%	16%
Other	125	177	246	335	448	38%	6%
Total	1,792	2,650	3,755	5,157	6,972	40%	100%

Core Metros	2021	2022	2023	2024	2025	CAGR	Mix
London	617	955	1,359	1,879	2,553	43%	37%
Frankfurt	315	459	639	859	1,128	38%	16%
Amsterdam	259	382	543	730	962	39%	14%
Paris	211	298	415	560	742	37%	11%
Total	1,402	2,094	2,956	4,028	5,385	45%	77%

Edge Metros	2021	2022	2023	2024	2025	CAGR	Mix
Madrid	63	96	143	210	305	48%	4%
Milan	47	70	101	142	200	44%	3%
Stockholm	49	64	93	133	189	40%	3%
Dublin	36	54	80	113	159	45%	2%
Zurich	39	50	72	103	149	40%	2%
Barcelona	24	35	50	72	106	45%	2%
Dubai	4	6	9	13	20	50%	0%
Sofia	3	4	5	8	11	38%	0%
Total	265	379	553	794	1,139	44%	16%





Benchmark

EMEA

Breakdown by Industry

	Core							Edge						
	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners
Telecommunications	3	135	460	40%	7%	53%	77	5	80	220	51%	9%	40%	35
Cloud & IT Services	2	265	120	54%	14%	32%	19	3	135	75	62%	16%	22%	13
Banking & Insurance	2	50	90	19%	8%	73%	26	1	30	15	59%	21%	20%	6
Manufacturing	2	60	50	61%	23%	16%	9	1	60	20	53%	33%	14%	6
Securities & Trading	2	80	120	24%	6%	70%	30	2	15	25	52%	17%	31%	7
Content & Digital Media	2	75	80	54%	11%	35%	19	3	35	45	65%	19%	16%	14
Business & Professional Services	2	65	30	57%	18%	25%	8	2	10	15	56%	16%	29%	6
Energy & Utilities	2	75	60	57%	19%	24%	13	1	65	10	43%	0%	57%	4
Wholesale & Retail	2	125	40	67%	19%	14%	8	1	35	10	57%	29%	14%	4
Healthcare & Life Sciences	1	25	20	54%	30%	16%	6	1	20	10	56%	22%	22%	4
Consumer Services	1	15	10	50%	25%	25%	4	0	0	0	0%	0%	0%	0
Industrial Services	2	50	70	57%	15%	28%	10	2	20	20	59%	16%	25%	6

Top Five Metros by Industry

	1st	2nd	3rd	4th	5th
Telecommunications	Frankfurt	London	Amsterdam	Paris	Stockholm
Cloud & IT Services	London	Amsterdam	Frankfurt	Paris	Dublin
Banking & Insurance	London	Frankfurt	Amsterdam	Paris	Milan
Manufacturing	Frankfurt	London	Amsterdam	Paris	Dublin
Securities & Trading	London	Frankfurt	Zurich	Amsterdam	Paris
Content & Digital Media	Amsterdam	London	Frankfurt	Paris	Stockholm
Business & Professional Services	London	Paris	Frankfurt	Amsterdam	Madrid
Energy & Utility	London	Amsterdam	Paris	Milan	Madrid
Wholesale & Retail	London	Frankfurt	Amsterdam	Manchester	Paris
Healthcare & Life Sciences	London	Frankfurt	Dublin	Amsterdam	Stockholm
Consumer Services	London	Frankfurt	Amsterdam	Warsaw	Stockholm
Industrial Services	London	Frankfurt	Amsterdam	Zurich	Stockholm





# Forecast

## APAC

Vertical	2021	2022	2023	2024	2025	CAGR	Mix
Enterprise	669	925	1,315	2,108	3,224	48%	43%
Service Provider	1,274	1,959	2,772	3,500	4,328	36%	57%
Total	1,943	2,884	4,087	5,608	7,552	40%	100%

Service Provider	2021	2022	2023	2024	2025	CAGR	Mix
Telecommunications	665	1,000	1,389	1,742	2,143	34%	28%
Cloud & IT Services	321	506	734	942	1,183	39%	16%
Hyperscale Providers	189	303	441	563	700	39%	9%
Content & Digital Media	99	150	208	253	302	32%	4%
Total	1,274	1,959	2,772	3,500	4,328	36%	57%

Enterprise	2021	2022	2023	2024	2025	CAGR	Mix
Securities & Trading	211	279	383	593	876	43%	12%
Manufacturing	161	215	295	461	692	44%	9%
Banking & Insurance	108	161	246	420	677	58%	9%
Energy & Utility	51	78	117	198	317	58%	4%
Wholesale & Retail Trade	41	59	85	137	208	50%	3%
Business & Professional Services	36	49	68	106	160	45%	2%
Industrial Services	24	33	47	75	114	48%	2%
Consumer Services	20	27	39	62	94	47%	1%
Healthcare & Life Sciences	9	13	18	29	44	48%	1%
Public Sector	4	5	8	13	20	52%	<1%
Other Enterprises	4	6	9	14	22	51%	<1%
Total	669	925	1,315	2,108	3,224	48%	43%

Metros	2021	2022	2023	2024	2025	CAGR	Mix
Core	1,603	2,372	3,336	4,507	5,928	39%	79%
Edge	270	409	605	899	1,349	50%	18%
Other	70	103	146	202	275	41%	4%
Total	1,939	2,878	4,078	5,594	7,530	40%	100%

Core Metros	2021	2022	2023	2024	2025	CAGR	Mix
Tokyo	499	719	1,017	1,358	1,758	37%	23%
Singapore	402	597	816	1,094	1,429	37%	19%
Hong Kong	265	398	569	763	998	39%	13%
Sydney	252	369	521	713	942	39%	13%
Shanghai	185	289	413	579	801	44%	11%
Total	1,603	2,372	3,336	4,507	5,928	43%	79%

Edge Metros	2021	2022	2023	2024	2025	CAGR	Mix
Beijing	110	174	259	385	577	51%	8%
Seoul	41	59	88	129	189	47%	3%
Mumbai	32	47	71	106	160	50%	2%
Osaka	34	48	69	101	149	45%	2%
Guangzhou, Shenzhen	24	39	57	85	128	52%	2%
Melbourne	17	24	36	57	94	53%	1%
Jakarta	12	18	25	36	52	44%	1%
Total	270	409	605	899	1,349	50%	18%



Benchmark

APAC

Breakdown by Industry

	Core							Edge						
	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners	Metros/ Customer	Cabinets/ Customer	Interconnections/ Customer	NSP	IAAS	Business Partners	Average # of Partners
Telecommunications	3	170	370	49%	9%	43%	62	2	60	100	42%	28%	29%	13
Cloud & IT Services	2	165	100	60%	14%	25%	18	2	100	45	49%	29%	23%	10
Banking & Insurance	2	70	55	36%	13%	50%	15	1	10	10	35%	32%	32%	6
Manufacturing	2	30	50	53%	28%	18%	9	1	10	25	37%	19%	44%	4
Securities & Trading	2	70	55	42%	10%	48%	17	1	20	15	52%	27%	21%	5
Content & Digital Media	3	60	60	65%	11%	25%	19	2	40	30	46%	35%	19%	13
Business & Professional Services	2	20	20	62%	20%	18%	7	1	25	25	46%	30%	24%	7
Energy & Utilities	2	20	35	51%	12%	37%	10	1	10	10	23%	38%	38%	6
Wholesale & Retail	2	35	30	54%	13%	33%	10	1	20	40	44%	32%	24%	11
Healthcare & Life Sciences	2	15	10	56%	22%	22%	8	1	20	10	50%	25%	25%	4
Consumer Services	1	35	30	90%	10%	0%	3	0	0	0	0%	0%	0%	0
Industrial Services	2	10	15	64%	19%	17%	7	0	0	0	0%	0%	0%	0

Top Five Metros by Industry

	1st	2nd	3rd	4th	5th
Telecommunications	Singapore	Sydney	Hong Kong	Tokyo	Melbourne
Cloud & IT Services	Singapore	Sydney	Tokyo	Hong Kong	Melbourne
Banking & Insurance	Singapore	Hong Kong	Sydney	Tokyo	Osaka
Manufacturing	Singapore	Tokyo	Hong Kong	Sydney	Shanghai
Securities & Trading	Singapore	Tokyo	Hong Kong	Sydney	Melbourne
Content & Digital Media	Sydney	Singapore	Tokyo	Hong Kong	Osaka
Business & Professional Services	Hong Kong	Sydney	Singapore	Shanghai	Tokyo
Energy & Utility	Singapore	Tokyo	Sydney	Perth	-
Wholesale & Retail	Singapore	Tokyo	Hong Kong	Sydney	Shanghai
Healthcare & Life Sciences	Singapore	Tokyo	Shanghai	Hong Kong	Osaka
Consumer Services	Singapore	Tokyo	Sydney	Shanghai	Hong Kong
Industrial Services	Singapore	Hong Kong	Shanghai	Tokyo	Sydney