

# Importance of Interconnection Platform for ISPs, Enterprises, CDNs and DC Partners

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Progression from  
Internet Service Provider  
to  
Digital Interconnection Service  
Provider

Agenda

Progression from  
Traditional Data Center  
to  
Interconnected Data Center

Progression from  
Internet Service Provider  
to  
Digital Interconnection Service Provider



**Digital  
Everywhere,  
for Everything,  
& Everyone**



*A new era  
of digitally-  
enabled  
business &  
private life*

*Digital  
Everywhere,  
for Everything,  
& Everyone*

# “connecting to the digital world has become a strategic decision instead of being a technical issue for ISPs, Enterprises, CDNs and DC Partners”



## Gain control of your digital environment

Using multiple providers' services – cloud, SaaS, PaaS, data centres – complicates the flow of data and content. This is truer depending on how you connect these services to people and devices globally.

Limited productivity, user frustration, unreachable applications, interrupted webinars, lower conversions, and video streaming buffering are just a few of the issues caused by poor connectivity. The only way to excel in a digital world is to control the environment where digital transactions take place.



## Optimise your network infrastructure

Clearly, the Internet cannot provide the level of connectivity required by digital enterprises. The most important way to optimize business performance is to create secure, resilient network infrastructure that interconnects all participants and digital flows.

Interconnection occurs when big players like Google, Netflix, and Amazon connect with smaller businesses to exchange data. You can connect many separate entities into digital ecosystems, and these ecosystems can connect to other individual entities and ecosystems. This enables global collaboration and data exchange with partners, customers, and employees. Interconnection binds these entities together.



# The Next- Big Leap



Digital Interconnection  
Service Provider



Internet Service  
Provider



# DE-CIX at a glance



## DE-CIX Global:

**45**  
Internet Exchanges  
Cloud exchanges

**3000+**  
Connected Networks

**1000+**  
Data Centers

## DE-CIX India:

World's Fastest Growing Interconnection Platform

**4**  
Internet Exchanges  
Cloud exchanges

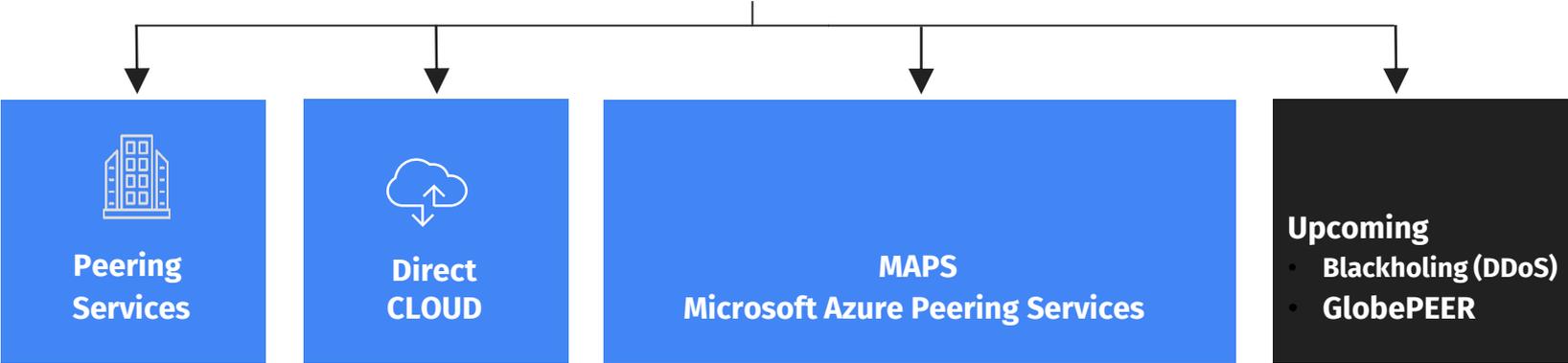
**590+**  
Connected Networks

**34**  
Data Centers  
(17 – DE-CIX and 17 – Lightstrom)

## DE-CIX Mumbai:

Asia Pacific's **No. 1** Interconnection Platform Amongst  
**153 Exchanges in 29 Countries.**

 **ONE MANY** Access  
Interconnection Services



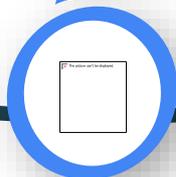
# “Interconnection Platform Powers Digitalisation and Optimises your Network Infrastructure”



## DE-CIX Single Access Port Service

A direct connection to network and cloud with the lowest possible latency

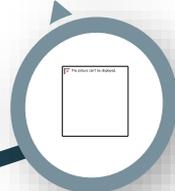
Low Latency



## DirectCLOUD

- Simple and fast setup, flexible contract terms and avoiding multiple vendors.
- Cloud Exchange with 4 Cloud Service Providers which covers 90% of Indian Market.
- Secure because of Private/Direct connection bypassing the Internet.
- Competitive prices in Telecom Industry
- Available as White Labelled Services.

## MAPS



- Secure 365 workloads (security, performance).
- MAPS reduces complexity in securing your 365 workloads.
- Customer does not need a DDoS mitigation service when using MAPS.
- Reduction in 50% trouble tickets and One-stop shop for support in case of issues.
- End to end traffic view, loss, latency.
- Multi-level redundancy: primary and failover location definition for MAPS.

## Security & Stability

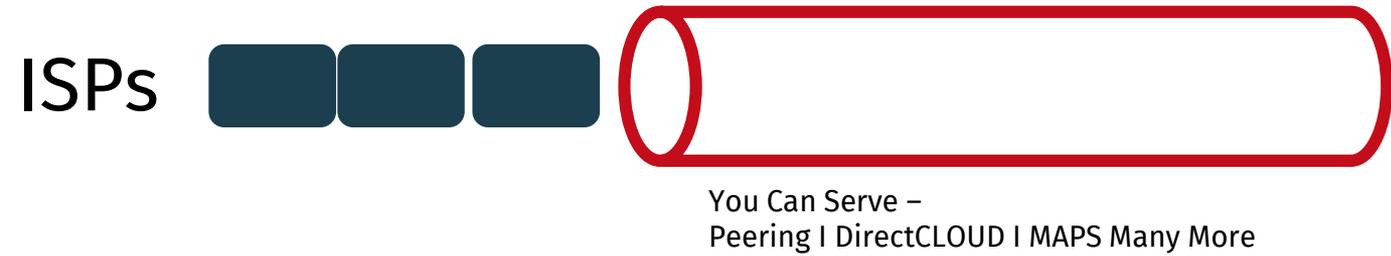


- Cloud connections bypassing the public Internet
- Underlying high- performance Internet Exchange infrastructure

## Scale up Flexibility

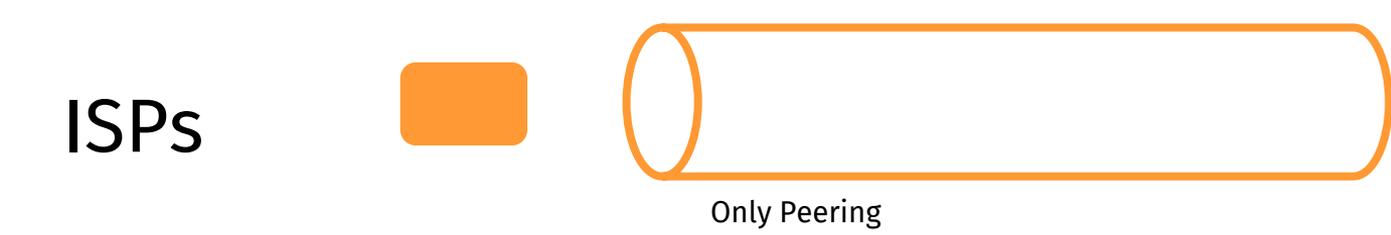


Easy scalability and complete flexibility to scale up and down services on a daily basis



Enhances Business viability  
due to Multiple revenue  
Growth

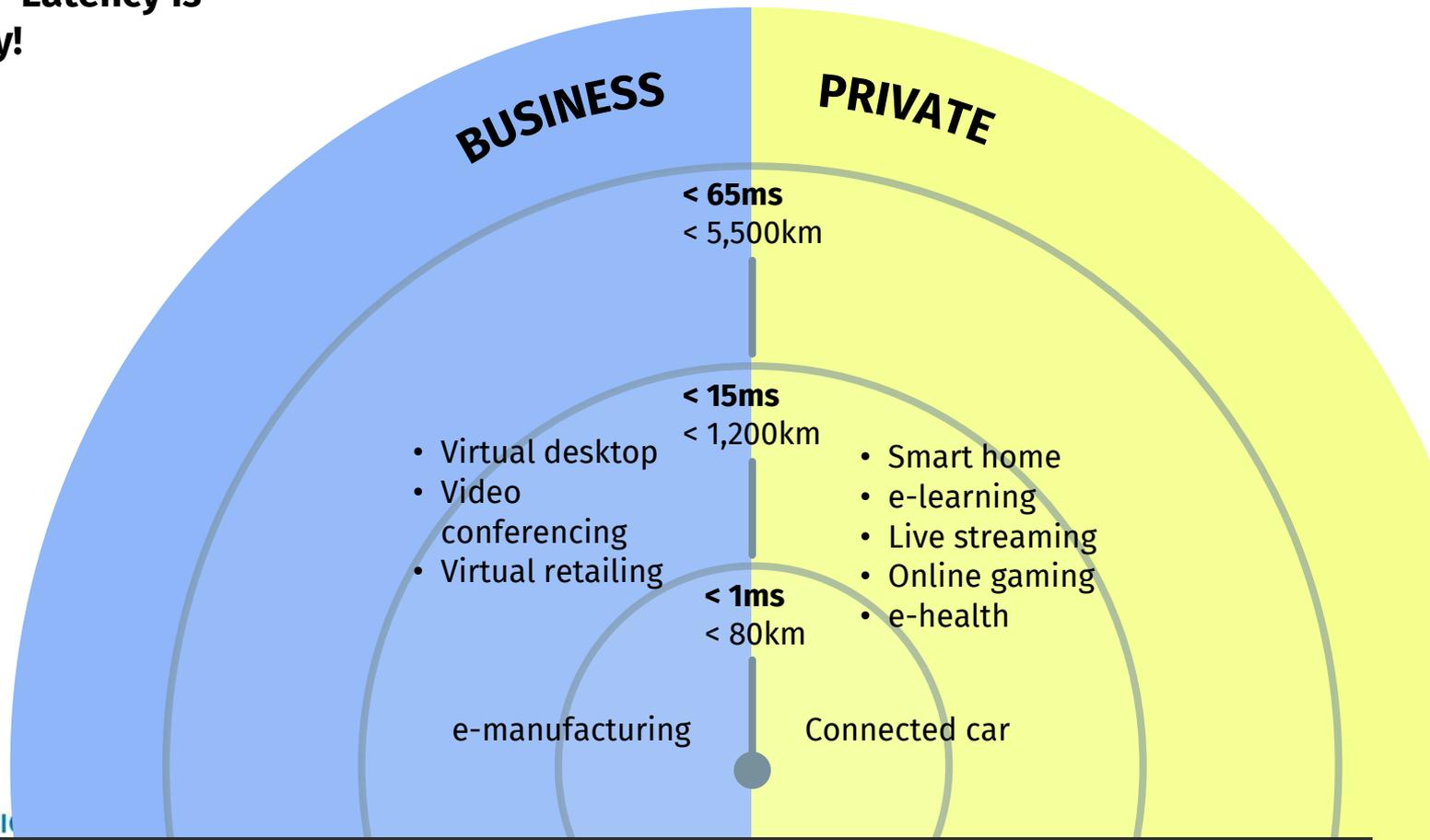
Traditional



Hamper  
Scalability

Progression from  
Traditional Data Center  
to  
Interconnected Data Center

## User experience – Latency is The New Currency!



A light gray world map is centered in the background of the slide.

**Latency**  
is the  
**new currency**

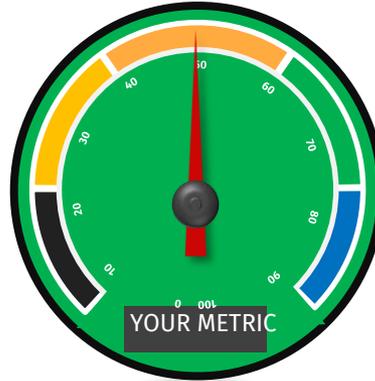


- a) To **Increase the Performance and Strengthen the Security and Resilience** of their connectivity,
- b) To ensure their flexibility by **Avoiding Vendor Lock-in**,
- c) To **Reduce the Complexity** of their connections to partners, and
- d) To increase their **Control of Compliance** within their ecosystem of partners

# New Set of 3 must-have KPIs for Data Center



**Greater Geographical Coverage of Carrier and Data-Center Neutral Interconnection Infrastructure**



**Local Access to a greater Density and Diversity of Networks**



**A variety of Scalable and Customizable Interconnection Services to support enterprise digital transformation.**

## 4 Steps to Increase Data Center Competitiveness

Step 1: To increase data center competitiveness: **Increase Network Density**

Step 2: To increase data center competitiveness: **Think Beyond The Cross-Connect**

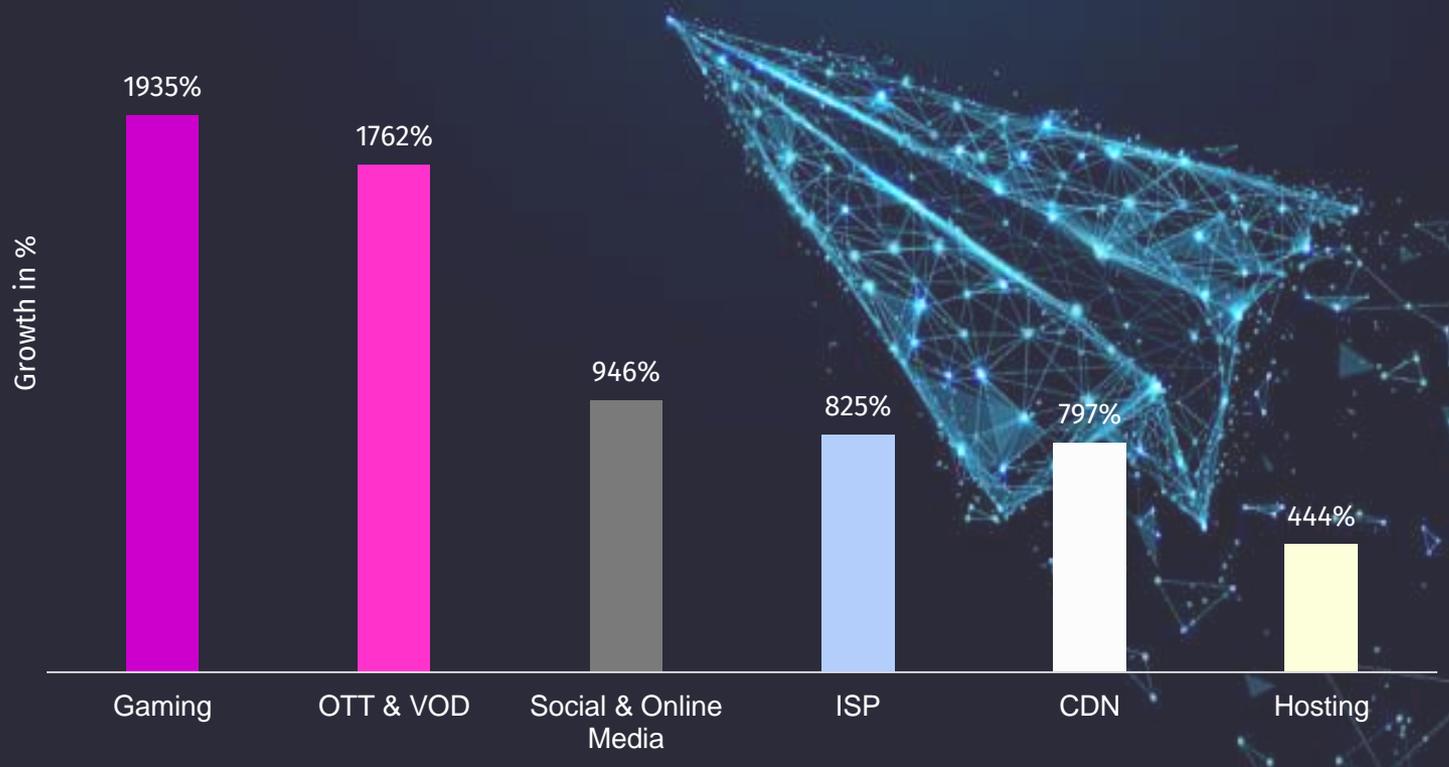
Step 3: To increase data center competitiveness: **Offer Enterprise Customers Flexibility**

Step 4: To increase Data Center Competitiveness: **Close the Skills Gap**

# DE-CIX Interconnected Networks – Growth in Traffic



DE-CIX India Segmentwise Growth  
18 month (Nov'21-May'23)



# DE-CIX catalyst, regardless of Data Center size, we become more significant in "Edge Data Center"



**SIZE**  
from 1 rack upwards,  
incl. cooling, network  
technology, etc.  
≈ 1 shipping container

**POWER**  
±100 kW

**TASK**  
Processing of IoT data  
close to the source

**Micro  
Data Center**



**SIZE**  
±500 m<sup>2</sup>  
≈ 1 cottage + garden  
or 1 basketball court

**POWER**  
±1 MW

**TASK**  
Company-owned data  
center for critical data,  
production data, etc.

**Small  
Data Center**



**SIZE**  
±10,000 m<sup>2</sup>  
≈ 1 Manhattan city block  
or 2 football fields

**POWER**  
±10 MW

**TASK**  
Provision of data center  
space to multiple te-  
nants (possibly incl. Ma-  
naged Services)

**Medium Colocation  
Data Center**



**SIZE**  
±50,000 m<sup>2</sup>  
≈ Windsor Castle  
or 12 football fields

**POWER**  
±50 MW

**TASK**  
Provision of data cen-  
ter space to multiple  
tenants; multiple com-  
panies & networks as  
added value for digital  
ecosystems

**Large Colocation  
Data Center**

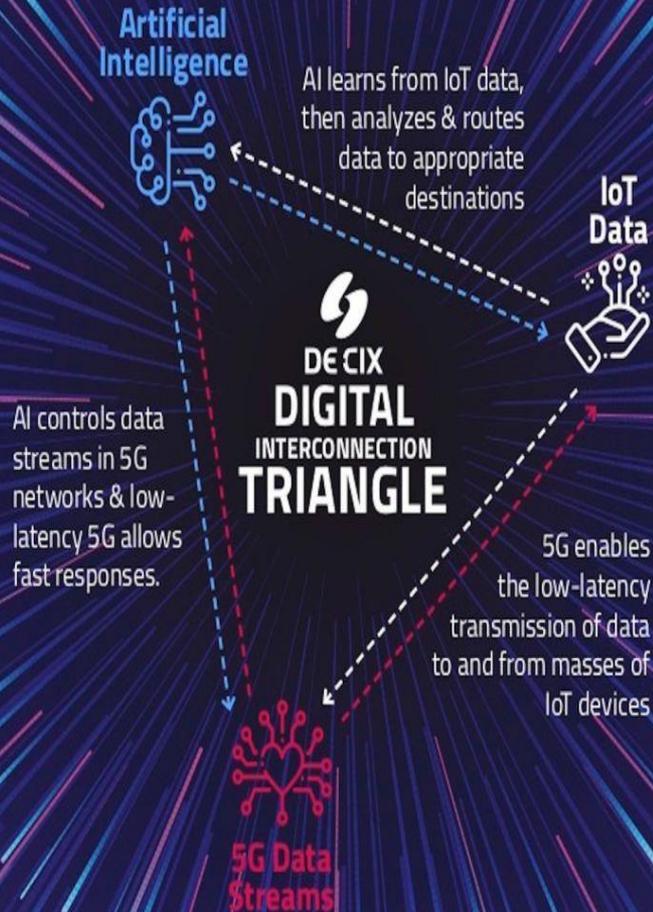


**SIZE**  
+100,000 m<sup>2</sup>  
≈ the largest currently  
being built is approx.  
as big as Vatican City  
or 57 football fields

**POWER**  
+100 MW

**TASK**  
Colocation;  
computing capacity  
for the major global  
networks (e.g. cloud  
providers, CDNs, social  
media networks).  
Enough capacity to be  
highly scalable with  
demand

**Hyperscaler  
Data Center**



So, where is the data centre heading now? Well, probably in as many different directions as there are data centre concepts today.

“The Edge of the Data Center is a whole New Territory to be explored. Data Centers are being designed to Operate in Climatically Opportune, but unexpected places. DE-CIX will be there, together with our many Data Center and Connectivity Partners, providing the portal to the Next Generations of Interconnection.”

# Global Infrastructure for the Next Generation Internet



Edge –  
IoT / 5G / AI



Cloud



LEO Satellite



Augmented &  
Virtual Reality



Metaverse



20ms



13ms



0,5ms



New Services and Business models integrating multiple technologies...  
all running at the speed of human perception. DE-CIX India Already in discussion with  
SpaceX for multiple 100G Ports.



*DE-CIX DirectCLOUD*  
*Your Dedicated Connection into the Cloud*  
**Fast, Simple, Stable, and Secure.**

# What is DirectCLOUD

With DE-CIX DirectCLOUD, you can offer your customers a direct connection to cloud providers; secure and with guaranteed bandwidth.

## **DirectCLOUD offers you**

- A single connection that gives you access to multiple cloud providers.
- A secure connection that bypasses the Internet; protected against DDoS attacks
- Guaranteed SLAs
- Measurable quality
- Stable packet routes

- MultiService Provisioning over existing access port.
- Works on Transfer Price Model

# What is MAPS

# Microsoft Azure Peering Service

Get an **SLA-backed, DDoS-free direct connection to Microsoft 365**. The service, developed together by DE-CIX and Microsoft, provides highly reliable and optimized Internet connectivity to Microsoft's cloud services. Improve user experience by offering the shortest network path from your premises to the nearest edge PoP in the Microsoft network.

## Benefits

### Lowest Latency.

Guaranteed high-performance connectivity with the **lowest possible latency**.

### DDoS-free

A guaranteed **DDoS-free connection** even for the smallest bandwidths.

### SLAs

Binding SLAs and **supported by Microsoft**.

# What Can We Learn From DE-CIX Germany and Microsoft Seattle's Successful Collaboration?



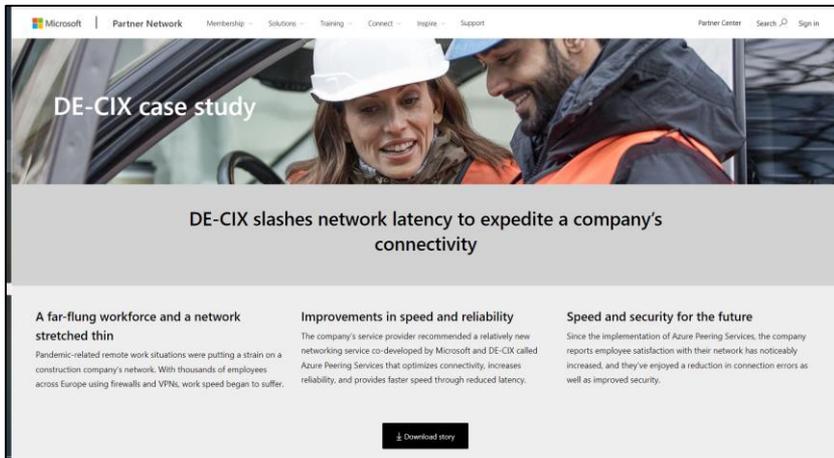
"Our employees on the construction sites, at the office locations and working from home simply have to be able to do their jobs. Technical explanations as to why it doesn't work now don't really help. The most important requirement for IT is that the IT systems run smoothly," comments Dirk Steffen, Head of Corporate IT at HOCHTIEF. "And with the **Microsoft Azure Peering Service**, this now works very well – not only when using Microsoft 365, but also when accessing server resources from Microsoft Azure."

## The result

The new "Multi-Cloud-Connect" product option from ecotel was successfully implemented at HOCHTIEF in a short time and includes the **Microsoft Azure Peering Service** for connecting to the Microsoft 365 cloud via the ecotel data center. The previous connection with central breakout and routing over the public Internet was replaced by a dedicated direct connection. This massively increased performance for users. Measurements have shown, for example, a reduction in latency from HOCHTIEF headquarters in Essen to Microsoft Teams within the 365 cloud from 53 down to 5 milliseconds. The significant improvement in runtime is achieved through direct peering, which ecotel established in collaboration with DE-CIX. As a result, the traffic is no longer routed over the public Internet, but over a private pathway within the ecotel backbone. With direct connectivity from the HOCHTIEF headquarters in Essen to the Microsoft cloud platform via the ecotel data center in Frankfurt am Main.

## DE-CIX becomes global launch partner for new business class connectivity to Microsoft Services

<https://www.de-cix.net/en/about-de-cix/media/press-releases/de-cix-becomes-global-launch-partner-for-new-business-class-connectivity-to-microsoft-services>



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### DE-CIX case study

#### DE-CIX slashes network latency to expedite a company's connectivity

- A far-flung workforce and a network stretched thin**  
Pandemic-related remote work situations were putting a strain on a construction company's network. With thousands of employees across Europe using firewalls and VPNs, work speed began to suffer.
- Improvements in speed and reliability**  
The company's service provider recommended a relatively new networking service co-developed by Microsoft and DE-CIX called Azure Peering Services that optimizes connectivity, increases reliability, and provides faster speed through reduced latency.
- Speed and security for the future**  
Since the implementation of Azure Peering Services, the company reports employee satisfaction with their network has noticeably increased, and they've enjoyed a reduction in connection errors as well as improved security.

[Download story](#)

<https://partner.microsoft.com/en-us/case-studies/decix>

## Our Presence



### DECIX MUMBAI

- Sify Rabale
- Web Werks DC2
- NTT DC5
- NTT DC6
- NTT DC7
- Equinix Mumbai
- Equinix Mumbai 2
- ST Telemedia DC
- Yotta NM1

### DE-CIX DELHI

- ST Telemedia Banglasahib
- ST Telemedia G K1
- Sify Greenfort - Noida
- Web Werks – Noida

### DE-CIX CHENNAI

- Bharti Airtel Santhome
- ST Telemedia Chennai
- Sify Tidel Park

### DE-CIX KOLKATA

- ST Telemedia Kolkata

Access to an additional 17 DC unique Partnership with Lightstrom.

# 34

## GOLD Standard PoPs

**Launching Soon**  
**DE-CIX Bangalore**  
**DE-CIX Hyderabad in 100 days.**

# Our Customers



Deutsche Bahn AG



PORSCHE



Alibaba.com



Bharat Petroleum

NETFLIX



VISA

EXXETA  
CONSULTING AND TECHNOLOGIES



verizon



BORUSAN TATA TELESERVICES LIMITED



BSNL



Audi



रेलटेल  
RAILTEL

Apple



NTT



zenlayer

DAIMLER TRUCK



GODFREY PHILLIPS  
— INDIA LIMITED —



lightstorm



Tencent



Definedge



HOCHTIEF

## Solve your Interconnection Requirements For Tomorrow, Today.

DE-CIX India offers a comprehensive interconnection solution. As a comprehensive solution for Peering, Cloud Connectivity, and Private Network Interconnects with a Single Contract and Complete Flexibility.

### CONNECT with Us at



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