

# Cloud Access Point

The logo for OpenDay 2025 features the text "OpenDay" and "2025" in white, centered within a circular graphic composed of dashed cyan lines. This circle is part of a larger network of glowing cyan lines and nodes that extends across the top right of the slide.

OpenDay  
2025

Enabling Eurex connectivity via Google Cloud  
Proof of Concept review

18 September 2025



DEUTSCHE BÖRSE  
GROUP

# Agenda

- 1 Motivation**
- 2 Google Cloud – Benefits & Capabilities
- 3 PoC Scope, Results & Challenges
- 4 Demo
- 5 Q&A

# Motivation

To broaden Eurex services into a Cloud Access Point with private direct interconnected to Deutsche Börse's on-premises Co-location to extend Eurex client base by providing low-latency:

- a. Eurex Market Data and connectivity (Order/Entry quote).
- b. Delivery at <+500us vs Colo in Google Cloud Europe West 3-B.
- c. Distributed (global) trading without need for local IT teams or own global network links.

## Target group

- Clients who require real-time data and cloud-based order execution, such as retail banks and latency-sensitive brokers.
- Trading participants who need reliable low-latency access to T7 without direct need to Co-location, e.g., Buy side, hedge funds, and execution shops.
- Quant firms, market makers, and HFTs seeking order book access without ultra-low latency requirements.

## Why now?

- a. Significant progress in T7 relevant cloud offerings.
- b. Clients are moving parts into cloud.

Therefore, we see a good opportunity to lower the technical barrier with Cloud Access Point.



# Agenda

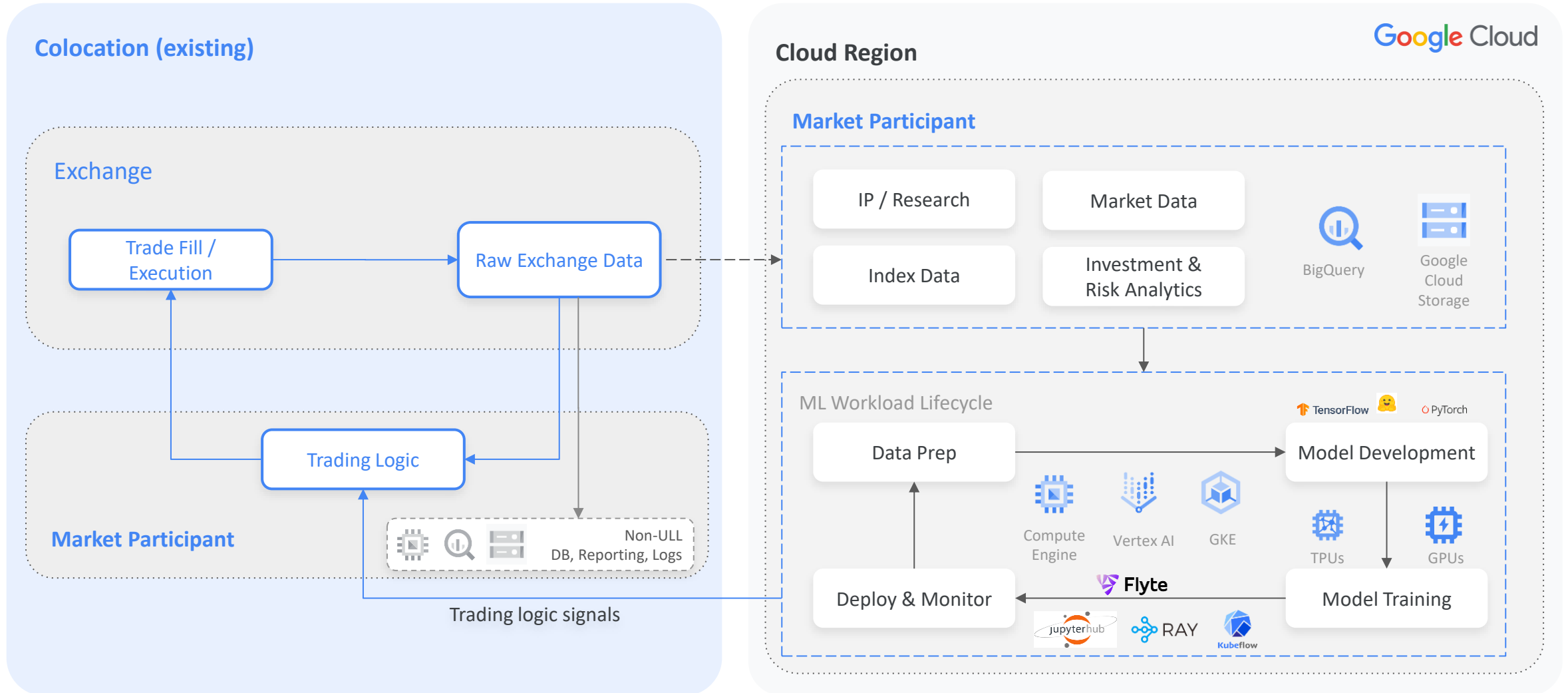
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# Cloud Access Point – Benefits

- Lower barriers for the entry of a diverse range of participants via a cloud-native platform.
- Offer a resilient cloud-based platform as a cost-effective Disaster Recovery / Extreme alternative for participants.
- Low latency high quality data ingestion and distribution into the Cloud.
- Enable secure, shared datasets for order book analysis and other insights supported by Google Cloud Analytics Hub.
- Utilize Cross Region Google Network to deliver Market Data, replacing costly dedicated circuits with new flexible data services for global participants.
- Participants can strategically migrate non-latency sensitive workloads such as risk management and performance analysis to cloud for improved efficiency.

# Leveraging Services from adjacent Cloud Region

Example of Market Participants using additional non-ULL capacity and cloud services in region



# Virtual Co-location Offering



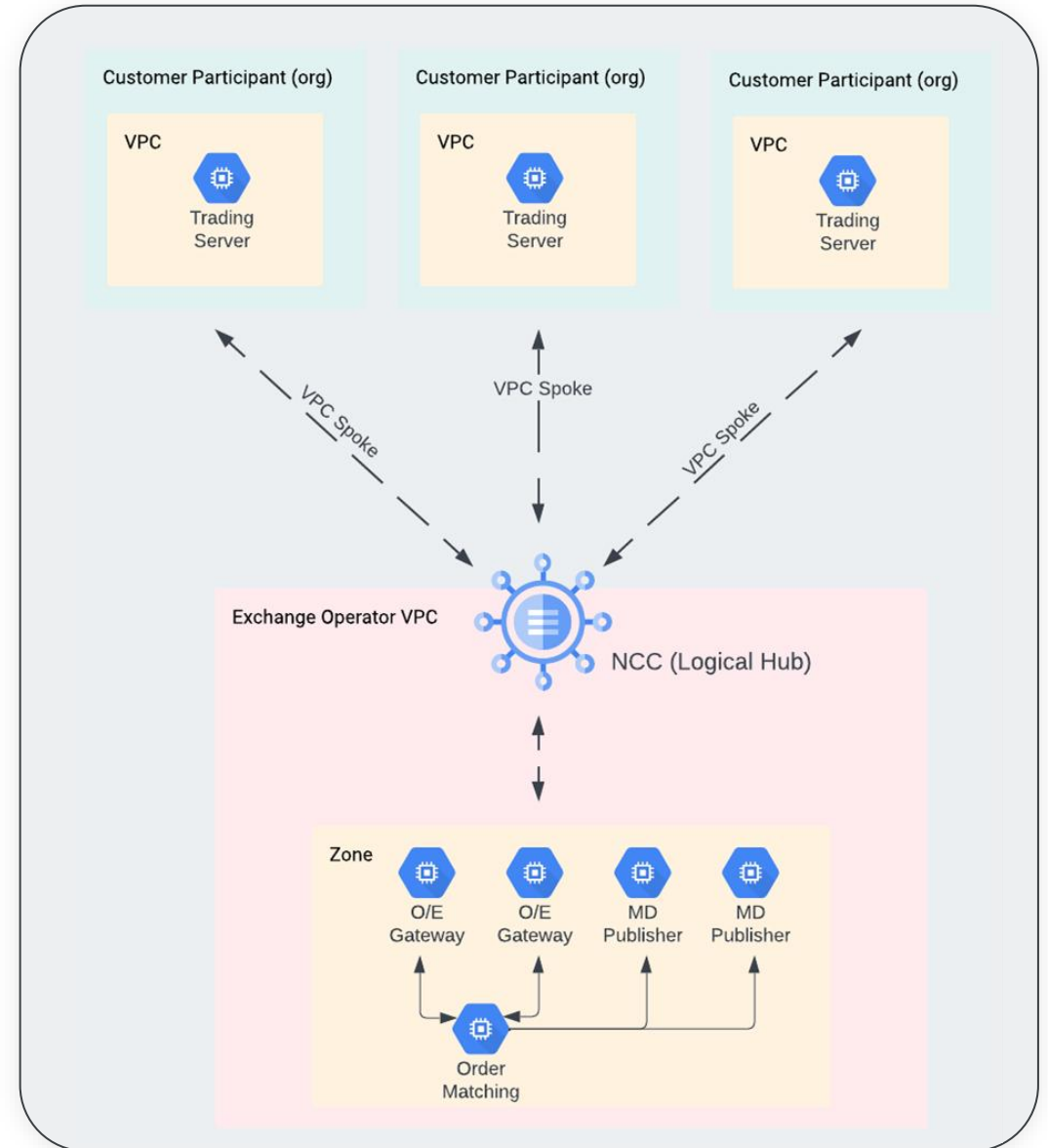
Efficient communication between an exchange and market participants

## Connectivity & Data Distribution

- Co-location type peering between cloud-based exchange operators and clients
- Unicast and multicast traffic support
- Protections against address overlaps
- Logical hub & spoke topology with isolation between spokes (distributed data plane)
- Interconnect support

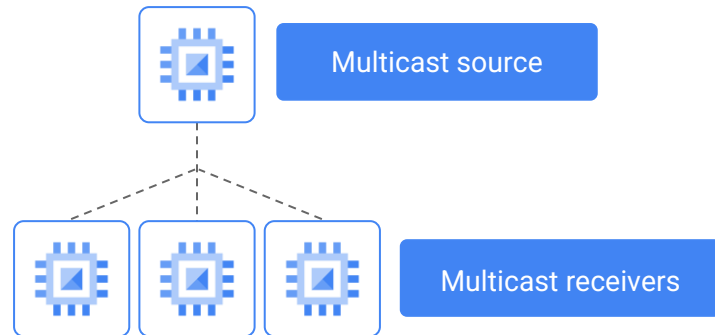
## Scale Objectives

- 1000 organization target per hub
- O(1000) individual multicast listeners per hub



# Multicast use cases

## Data distribution / streaming



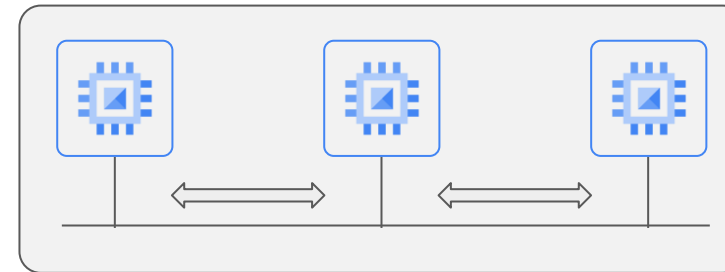
### Financial market data distribution

- Sourced by exchange operator/data providers
- Consumed by market participants
- Replication fairness
- Entitlement control

### Characteristics

- Typically any-source multicast (ASM)
- Traffic patterns typically 1-to-many

## Message buses / clustering solutions



### Use cases

- Bringup/discovery of cluster members
- Cluster heartbeat/keepalive
- Synchronization of cluster state
- Sending software updates/patches simultaneously

### Characteristics

- Typically any-source multicast (ASM)
- Traffic patterns can be 1-to-many or many-to-many

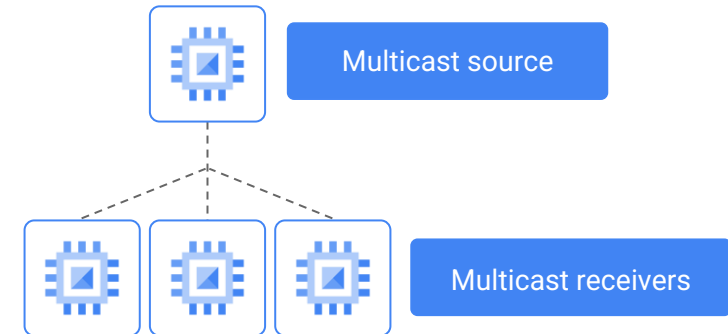
# Cloud Multicast – Technical Overview



## Multicast support in the cloud without application changes

### Key capabilities

- Forwarding of IPv4 multicast traffic
- GCE instances to source and receive multicast data
- Scalable multicast replication
- Domain concept for redundant multicast streams - A/B feeds
- Domain groups for isolated redundant domains
- IGMPv2 - Multicast group memberships
- In-order delivery of multicast packets on C4 GCE instances
- Granular multicast-group based entitlement controls
- Multicast data distribution within a region (single and cross zone)
- Observability based on cloud logging, metrics and VPC flow logs
- Support for multiple multicast distribution topologies (single/multi-VPC)



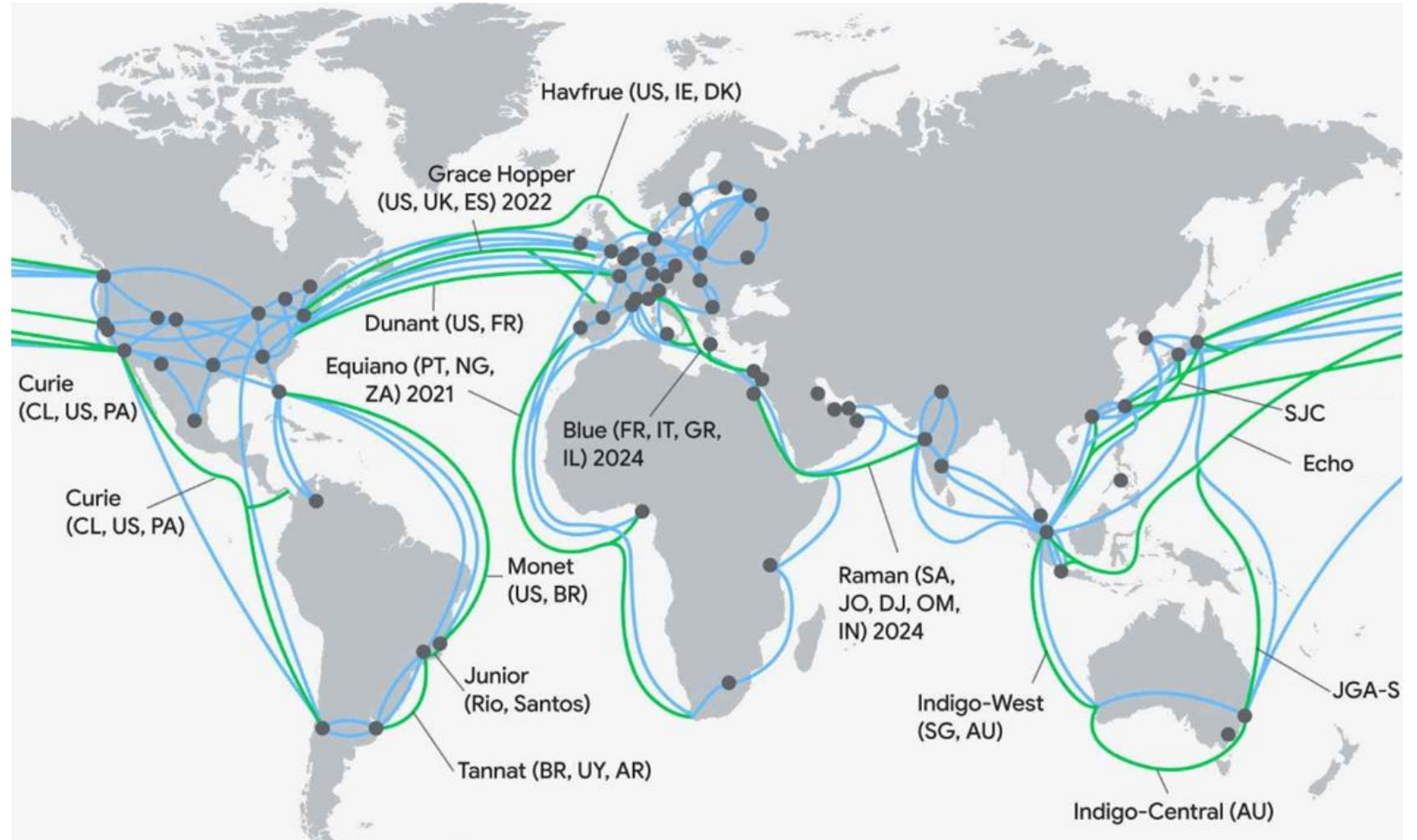
# Business opportunities with Google Cloud Regions & Cloud WAN

## Flexible infrastructure globally for

- Market Participants
- Market Data Providers
- Managed Service Providers

## Globally available services

- Compute (traditional, training, inferencing)
- Global data & analytics
- Global connectivity
- Connectivity to local trading venues (GCI)



— submarine cable investments

— current network

42 regions + 3+ coming

127 zones

2M+ miles of fiber

33 subsea cables

202 network edge locations

200+ countries and territories

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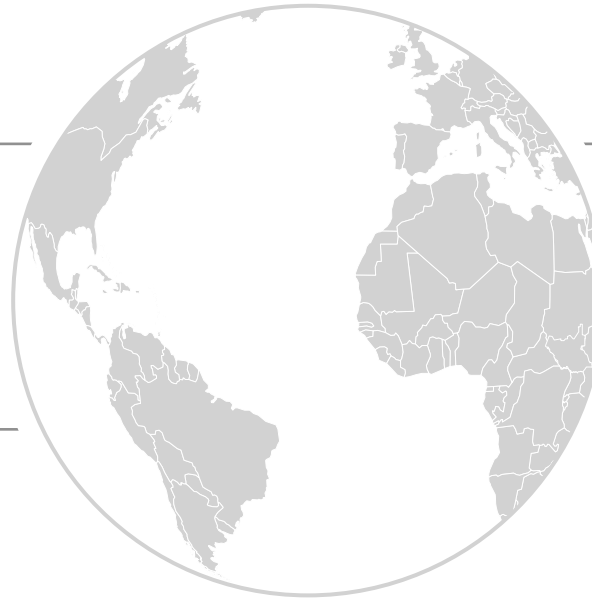
# PoC Scope

The PoC test aims to result in a feasible technical design and setup for a Cloud Access Point for T7 Trading system.

## Challenges

Connecting the customers  
(extension of N7 network into the Cloud)

Order/Quote routing from customer  
VPC to T7 Gateways

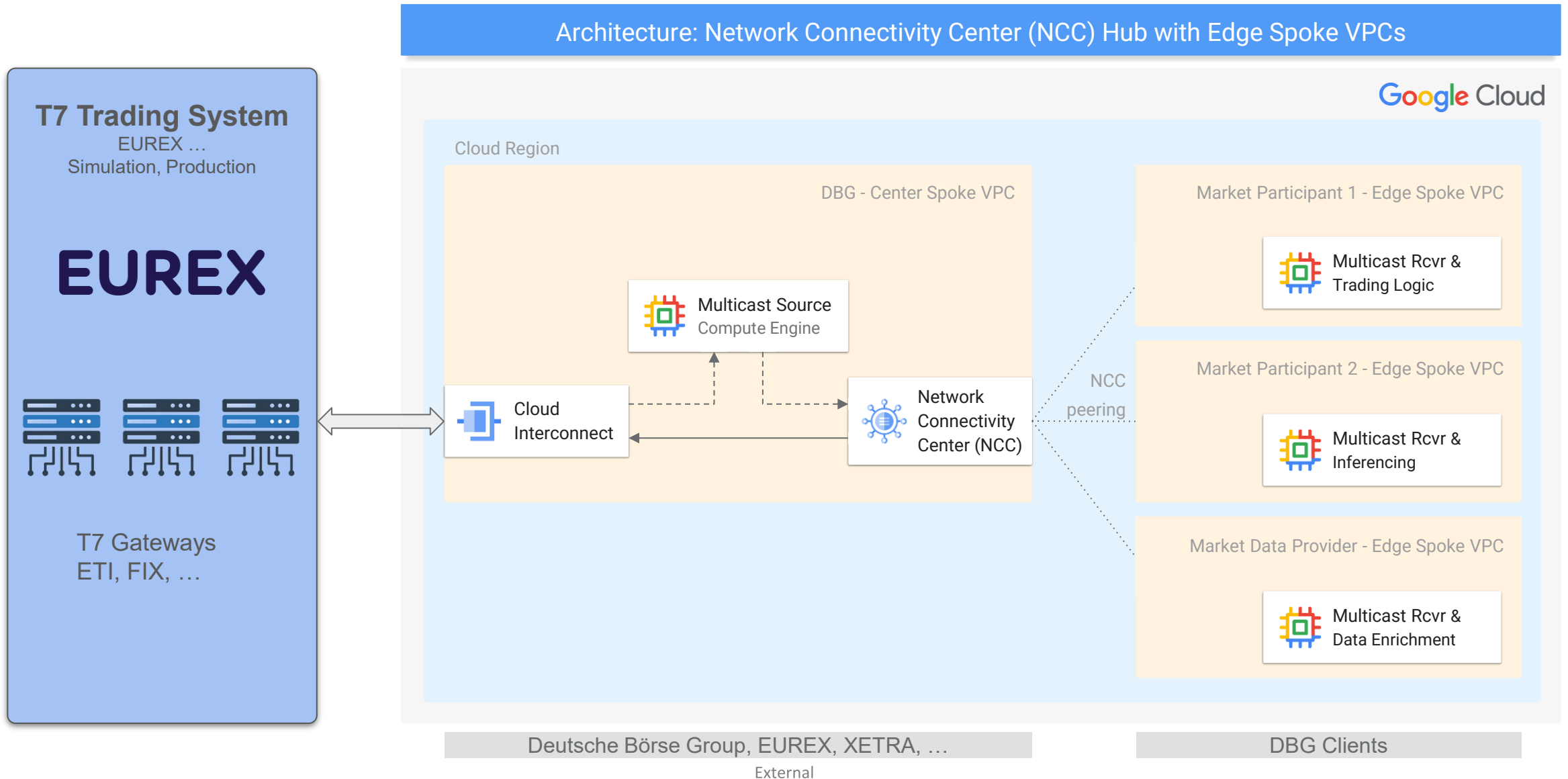


Transporting Market Data to the  
customers

Transporting Market Data into the  
Cloud

Securing the setup

# Market Data and Order/Quote Routing



# Share your thoughts!

Scan the QR Code below to participate.



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# Q&A



Scan QR code to join **Eurex** and **Google Cloud** in testing **Cloud Access Point** in our private preview **now!**



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**Thank you!**

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# Next step: Private Colo to Cloud Connectivity

requires GCP Multicast Enabled Interconnect (est. GA 2026)

