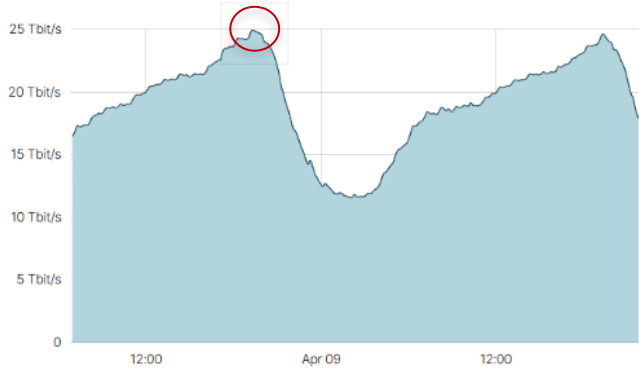
Novedades del DE-CIX

ESNOG 33, Madrid, 22-23 Mayo 2025

Marcos Sanz – Head of Global SW

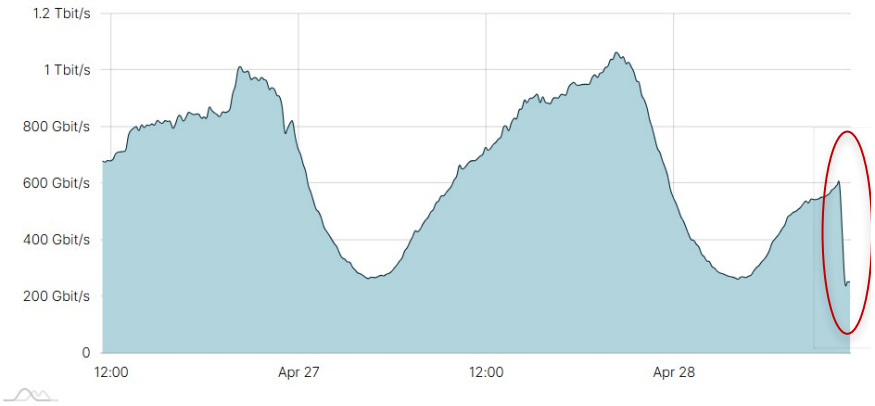
600 ciudades, 80 países, 50 IXs, 25 Tbps

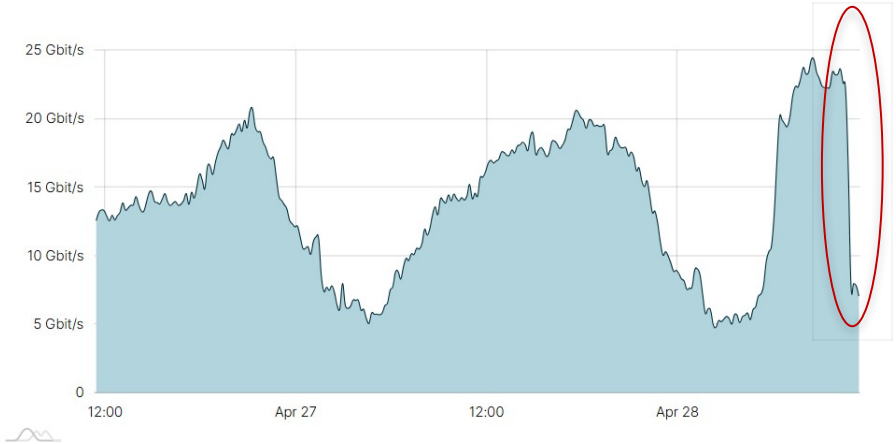


DE-CIX has set a new global peak traffic record. On the evening of 8 April, data throughput across all DE-CIX Internet Exchanges worldwide reached an impressive 25 terabits per second (Tbps). This new record reflects a 130% increase in global peak traffic since 2020.

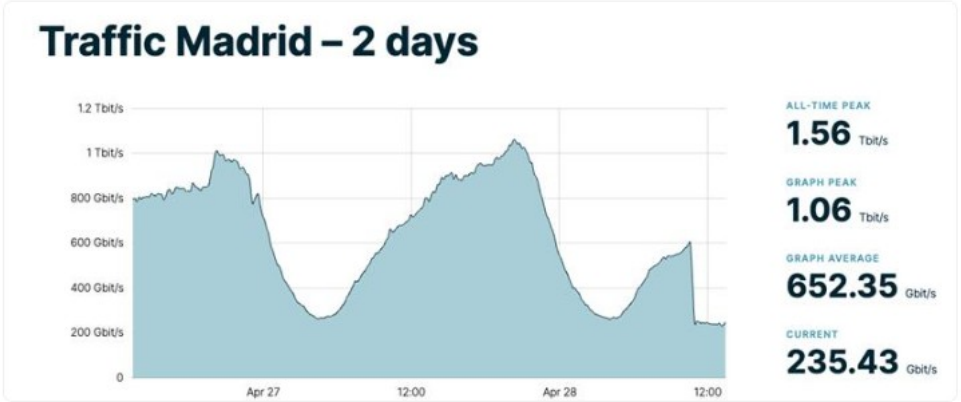
Unlike previous records, which were typically set at larger individual locations, this new peak was the result of simultaneous strong throughput across multiple metropolitan areas – including Frankfurt, Madrid, Istanbul, and Dallas.

Pero el 28 de Abril…





Matthias Wichtlhuber 28/4 15:53



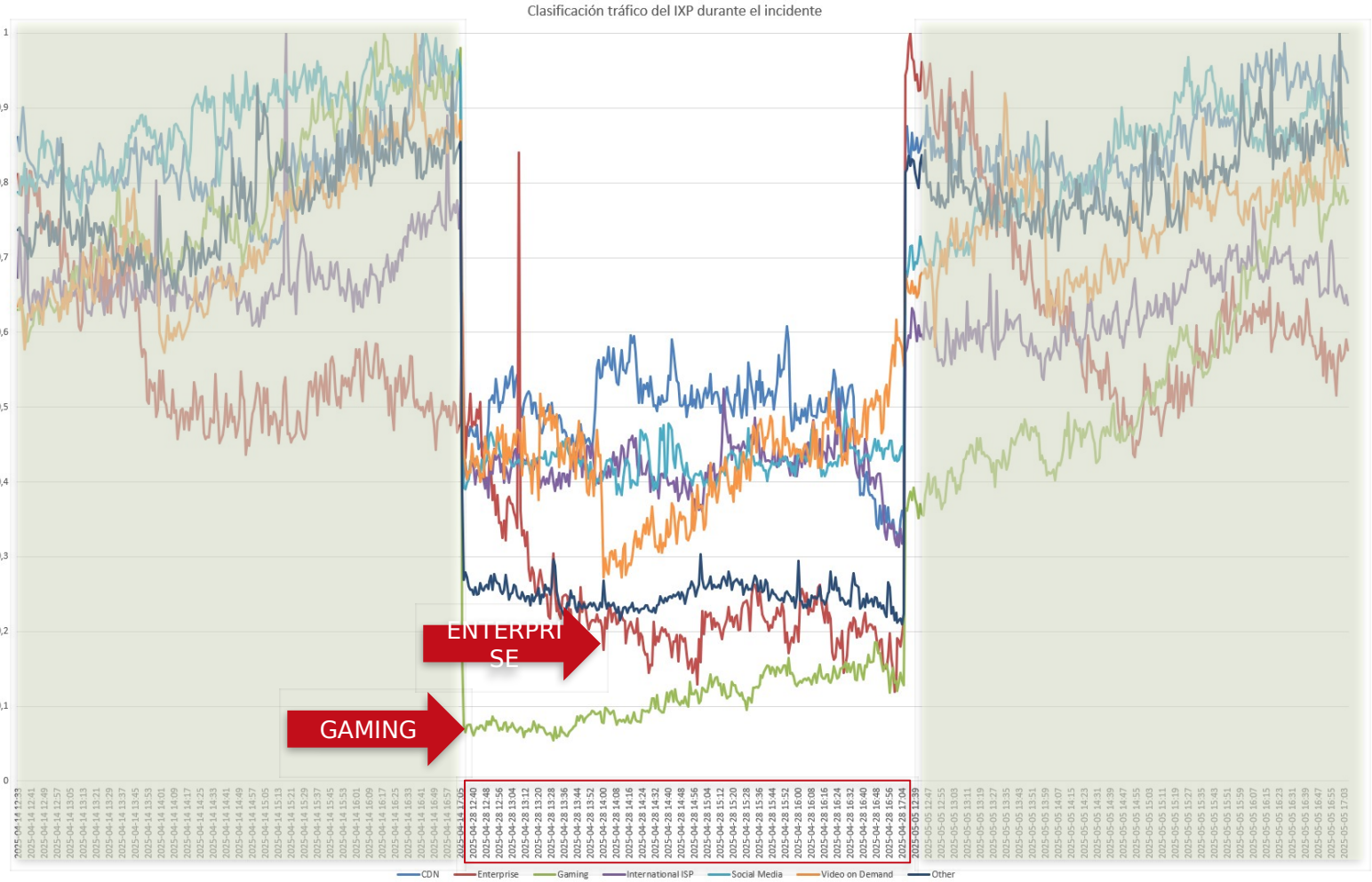
Impressive ...

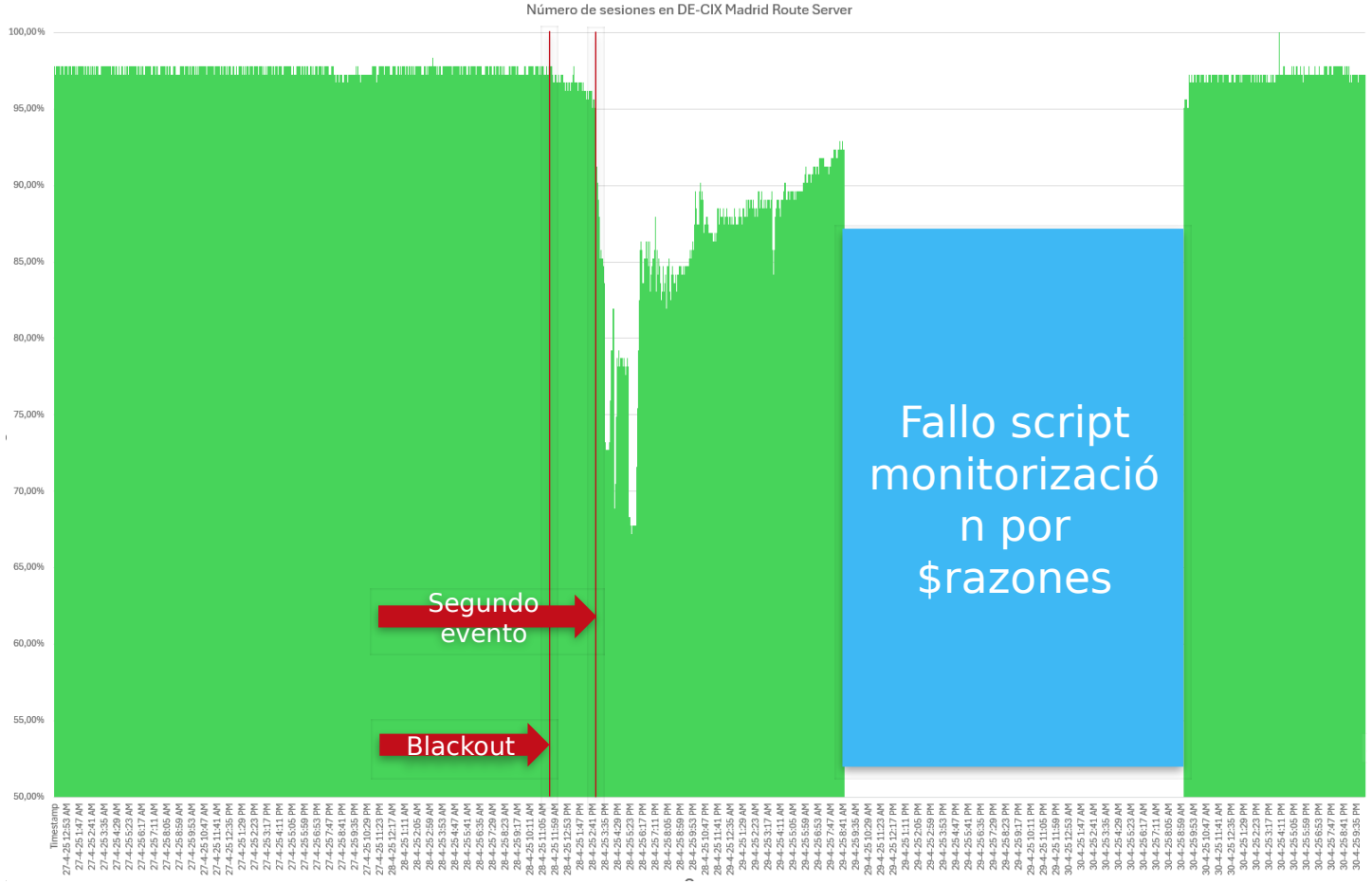
Marcos Sanz 28/4 16:03

I wonder what that residual traffic is at all...

Matthias Wichtlhuber 28/4 16:04 Editado

Probably traffic passing through on hardware that runs on a Diesel generator now. But good opportunity to observe the Internet unc stress.


Clasificación tráfico del IXP durante el incidente
ENTERPRISE
GAMING
CDN
Enterprise
Gaming
International ISP
Social Media
Video on Demand
Other


Número de sesiones en DE-CIX Madrid Route Server
100,00%
95,00%
90,00%
85,00%
80,00%
75,00%
70,00%
65,00%
60,00%
55,00%
50,00%
Timestamp
Segundo evento
Blackout
Fallo script monitorización por $razones

(De-)Peering con Google - recapitulando

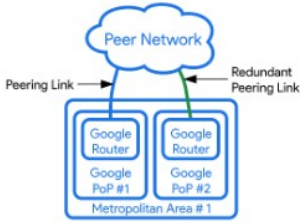
- Google comienza de-peerings en IXPs en Marzo/Abril 2024
- Algunas de nuestros route servers afectados
- Rumor: Google cambia a PNIs con peers con más de 1Gbps
- Intentos estandarización “Peering API” (draft-ietf-grow-peering-api)
- Programa “Google Verified Peering Provider”

Peering con Google - recapitulando

Minimum Google PNI Peering Requirements

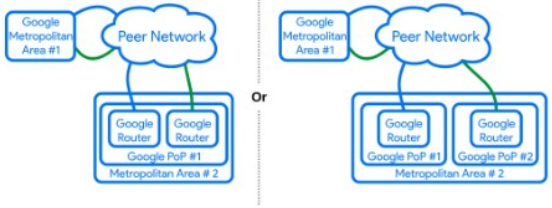
- **Minimum of two redundant PNIs in one metro area.** Specifically:
  - Within one metro area, at least two PNI with both being either in the same or split between separate Google PoPs

Peering Provider
Verified Silver



- **Minimum of two redundant PNIs in one metro area.** Specifically:
  - Within one metro area, at least one PNI in one Google PoP and one PNI in another Google PoP
- All PNIs IPv4+IPv6 Dual Stacked
- No BGP sessions with Google over an Internet Exchange (IX).
- NOC contacts verified in ISP Portal

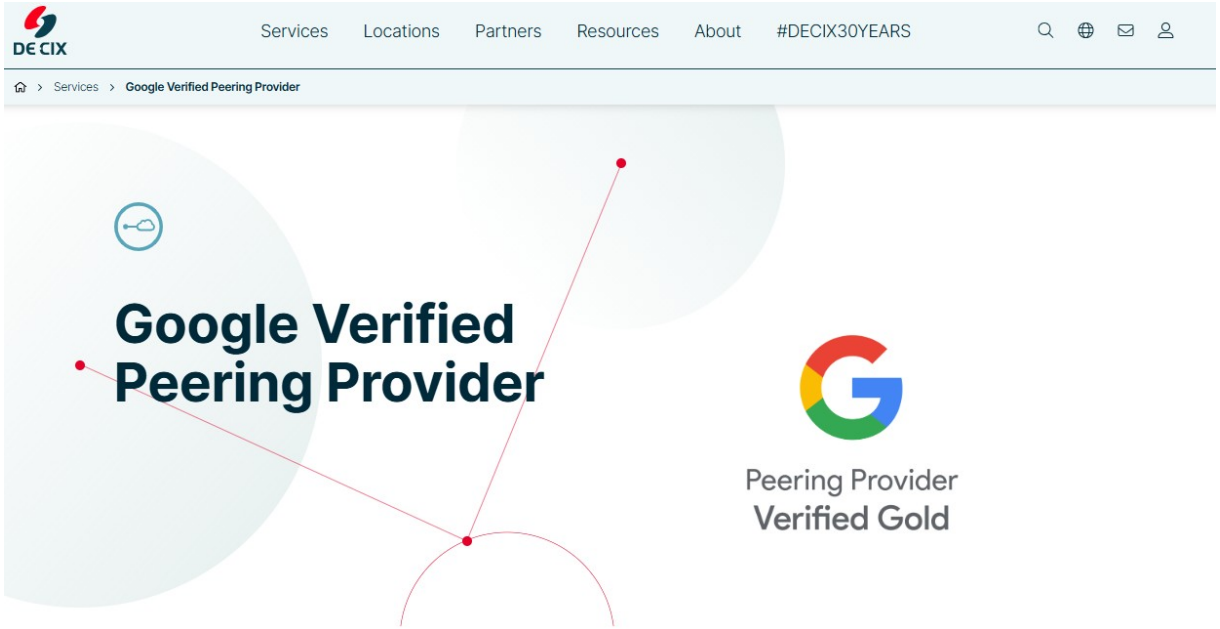
Peering Provider
Verified Gold



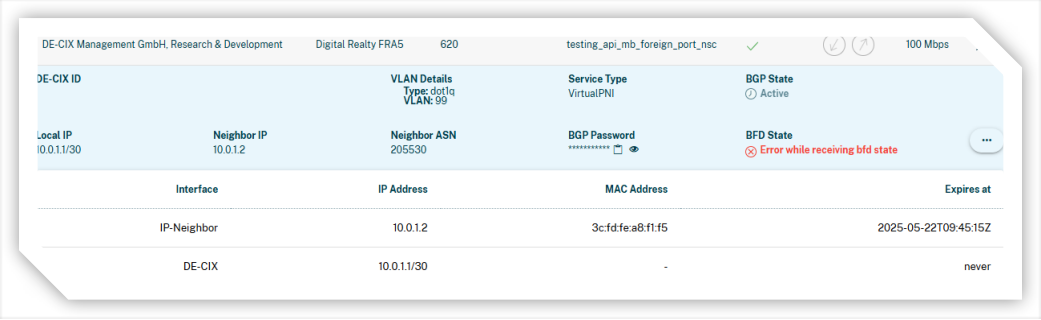
Two alternate examples of a gold verified provider peering topology.

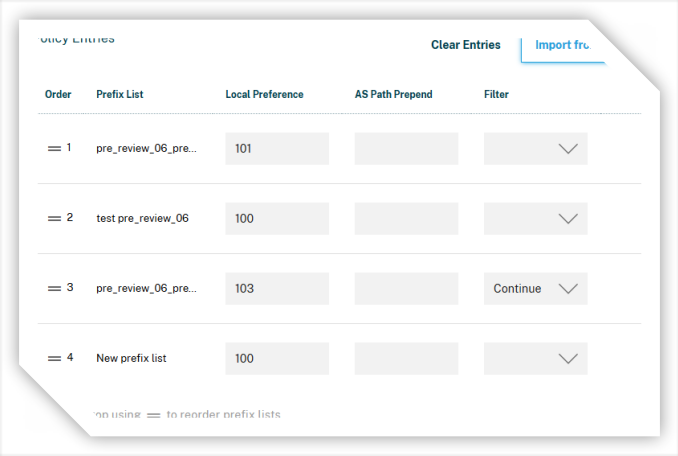
- All Silver criteria and:
- **Minimum of four redundant PNIs between two metro areas.** Specifically:
  - Within one metro area, at least one PNI in one Google PoP and one PNI in another Google PoP
  - In a second metro area, at least two PNI with both being either in the same or split between separate Google PoPs

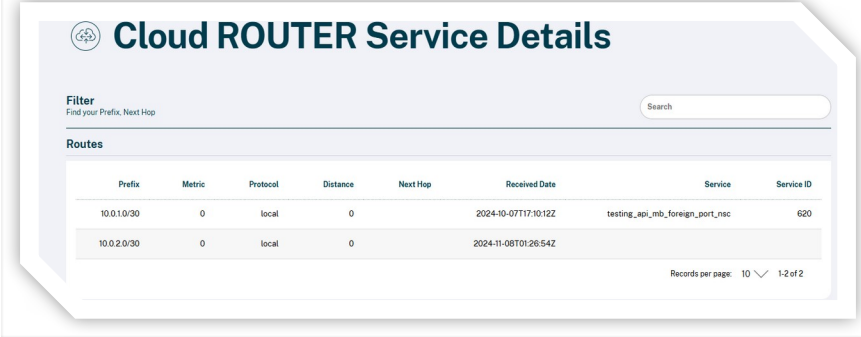
DE-CIX es GVPP Gold en AMS y FRA



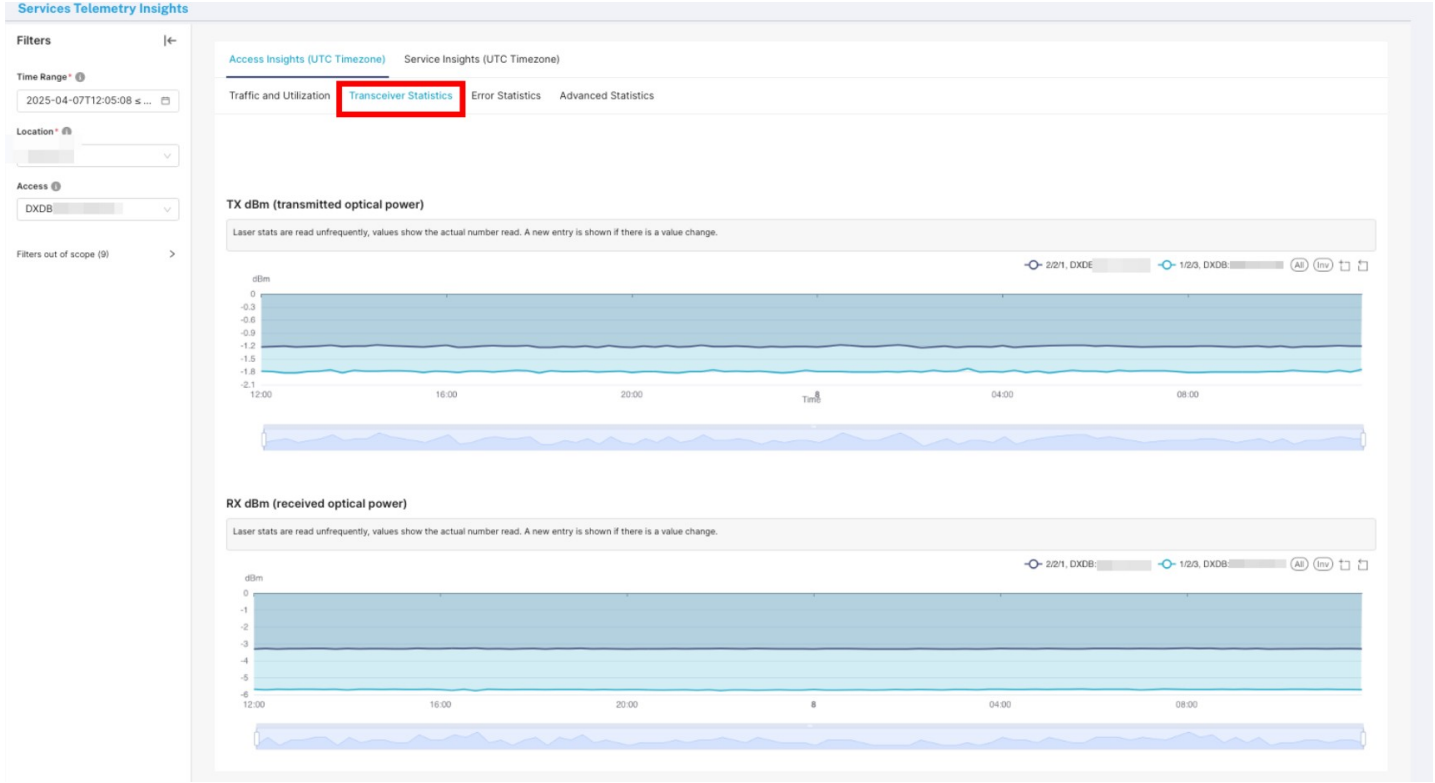
Mejoras en Cloud ROUTER



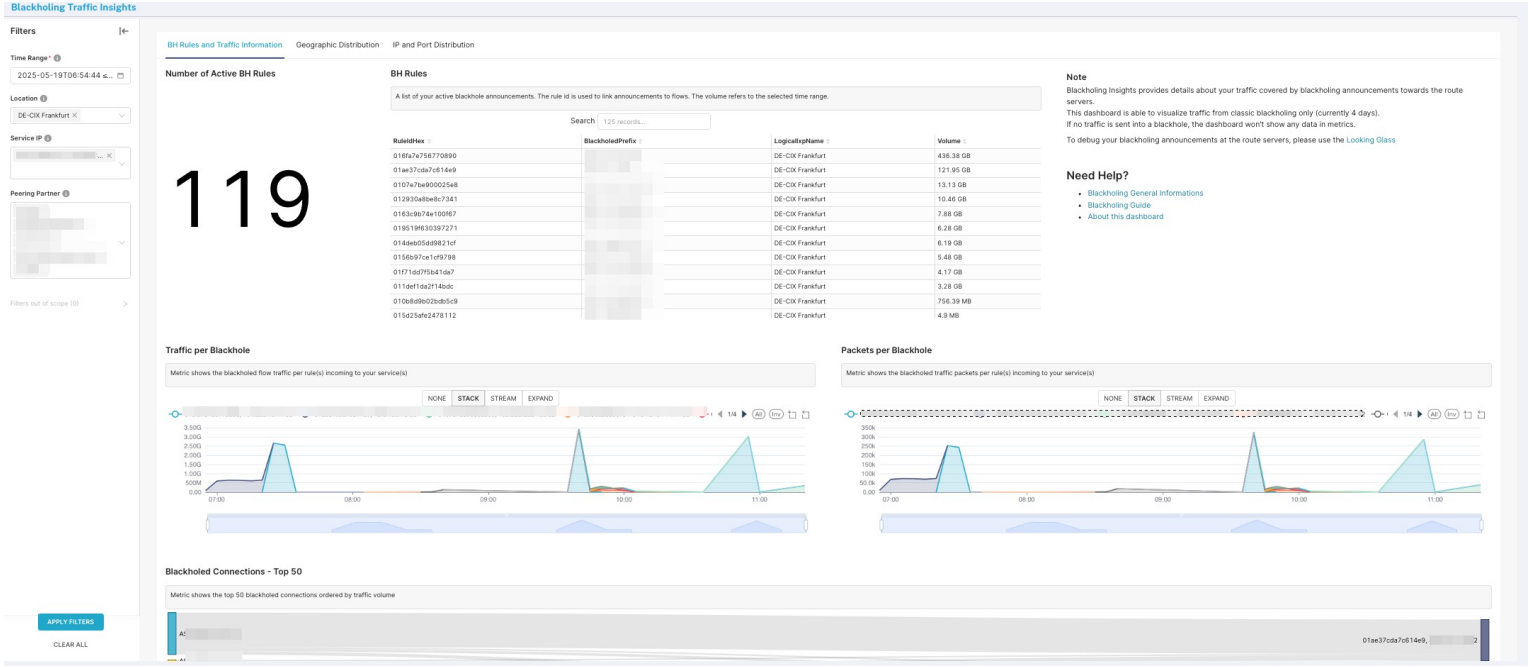


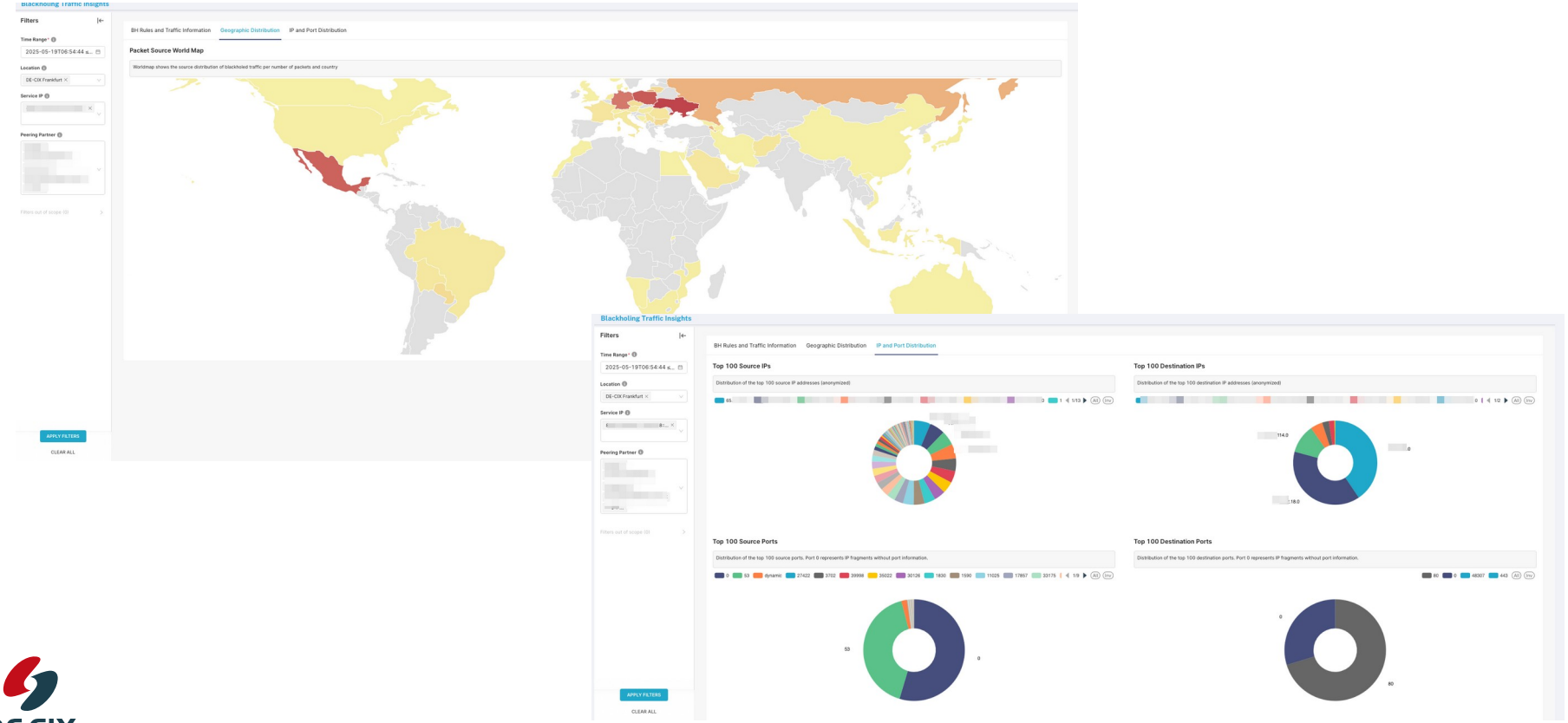


Insights – Transceiver Metrics



Blackholing Insights




Blackholing Traffic Insights
Filters
Time Range*
2025-05-19T06:54:44
Location
DE-CIX Frankfurt
Service IP
Peering Partner
APPLY FILTERS
CLEAR ALL
BH Rules and Traffic Information
Geographic Distribution
IP and Port Distribution
Packet Source World Map
Worldmap shows the source distribution of blackholed traffic per number of packets and country
Blackholing Traffic Insights
Filters
Time Range*
2025-05-19T06:54:44
Location
DE-CIX Frankfurt
Service IP
Peering Partner
APPLY FILTERS
CLEAR ALL
BH Rules and Traffic Information
Geographic Distribution
IP and Port Distribution
Top 100 Source IPs
Distribution of the top 100 source IP addresses (anonymized)
Top 100 Destination IPs
Distribution of the top 100 destination IP addresses (anonymized)
114.0
18.0
Top 100 Source Ports
Distribution of the top 100 source ports. Port 0 represents IP fragments without port information.
53
0
Top 100 Destination Ports
Distribution of the top 100 destination ports. Port 0 represents IP fragments without port information.
0
80

Insights – Recomendaciones de Peering

Peering Recommendations and Network Information Insights

Filters

Time Range*

2025-05-18T10:31:37 ≤...

Logical Location

DE-CIX Frankfurt ×

DE-CIX Marseille ×

Filters out of scope (2)

APPLY FILTERS

Missing Peering & Recommendations | Route Server Status | Prefixes / ASN Rank | Peers and Up & Downstreams | Joins & Leaves | Maps/GeoData

Peering Recommendations

This report identifies IXP locations where a customer is currently peering with other customers, as well as highlights opportunities to establish new peering connections at IXP locations where there is currently no existing peering with the same customer.

Search 54 records...

Peering recommendation	Asn	Already peering at	Peering Opportunity
ADISTA	16347	DE-CIX Marseille	DE-CIX Frankfurt
ANTEL URUGUAY	6057	DE-CIX Frankfurt	DE-CIX Marseille
Adylnet Telecom	28283	DE-CIX Frankfurt	DE-CIX Marseille
Airtel	9498	DE-CIX Frankfurt	DE-CIX Marseille
Amazon	16509	DE-CIX Frankfurt	DE-CIX Marseille
Anexia	42473	DE-CIX Frankfurt, UAE-IX	DE-CIX Marseille
Apple	714	DE-CIX Frankfurt	DE-CIX Marseille
BSO SC	4455	DE-CIX Marseille	DE-CIX Frankfurt
Belgacom	6774	DE-CIX Frankfurt	DE-CIX Marseille
DANTE	21320	DE-CIX Frankfurt	DE-CIX Marseille
DX	6695	DE-CIX Frankfurt	DE-CIX Marseille
DX	205529	DE-CIX Frankfurt	DE-CIX Marseille
Dataline	35297	DE-CIX Frankfurt	DE-CIX Marseille
EXATEL	20804	DE-CIX Frankfurt	DE-CIX Marseille
Earth Telecommunication Pvt Ltd	58715	DE-CIX Frankfurt	DE-CIX Marseille
Etisalat	8966	DE-CIX Frankfurt	DE-CIX Marseille
FIORD	28917	DE-CIX Frankfurt	DE-CIX Marseille
Fastly	54113	DE-CIX Frankfurt	DE-CIX Marseille

Missing Peering Partners per Location

Shows locations and customers with no peering session anywhere

Search 743 records...

Non peering partner	Asn	LogicalIxpName
Flys	28663	DE-CIX Frankfurt
Robert Bosch GmbH	9183	DE-CIX Frankfurt
Servicepipe	201706	DE-CIX Frankfurt
Video Broadcast	8245	DE-CIX Frankfurt
Avatel Telecom	200845	DE-CIX Frankfurt
e-utp	56662	DE-CIX Frankfurt
Salesforce	14340	DE-CIX Marseille
IlmProvider	196968	DE-CIX Frankfurt
Virtex Telecom LTDA	262494	DE-CIX Frankfurt
Contabo	51167	DE-CIX Frankfurt
Servisnet Ltd	51500	DE-CIX Frankfurt
Slashme BV	25595	DE-CIX Frankfurt
CloudKleyer	200187	DE-CIX Frankfurt
Eswatini Posts and Telecommunication Corporations	19711	DE-CIX Frankfurt
SED Multitel	35574	DE-CIX Frankfurt
G8	28329	DE-CIX Frankfurt
LARUS Limited	17561	DE-CIX Frankfurt
PALTEL	12975	DE-CIX Marseille
LLC TAXTELECOM	57503	DE-CIX Frankfurt

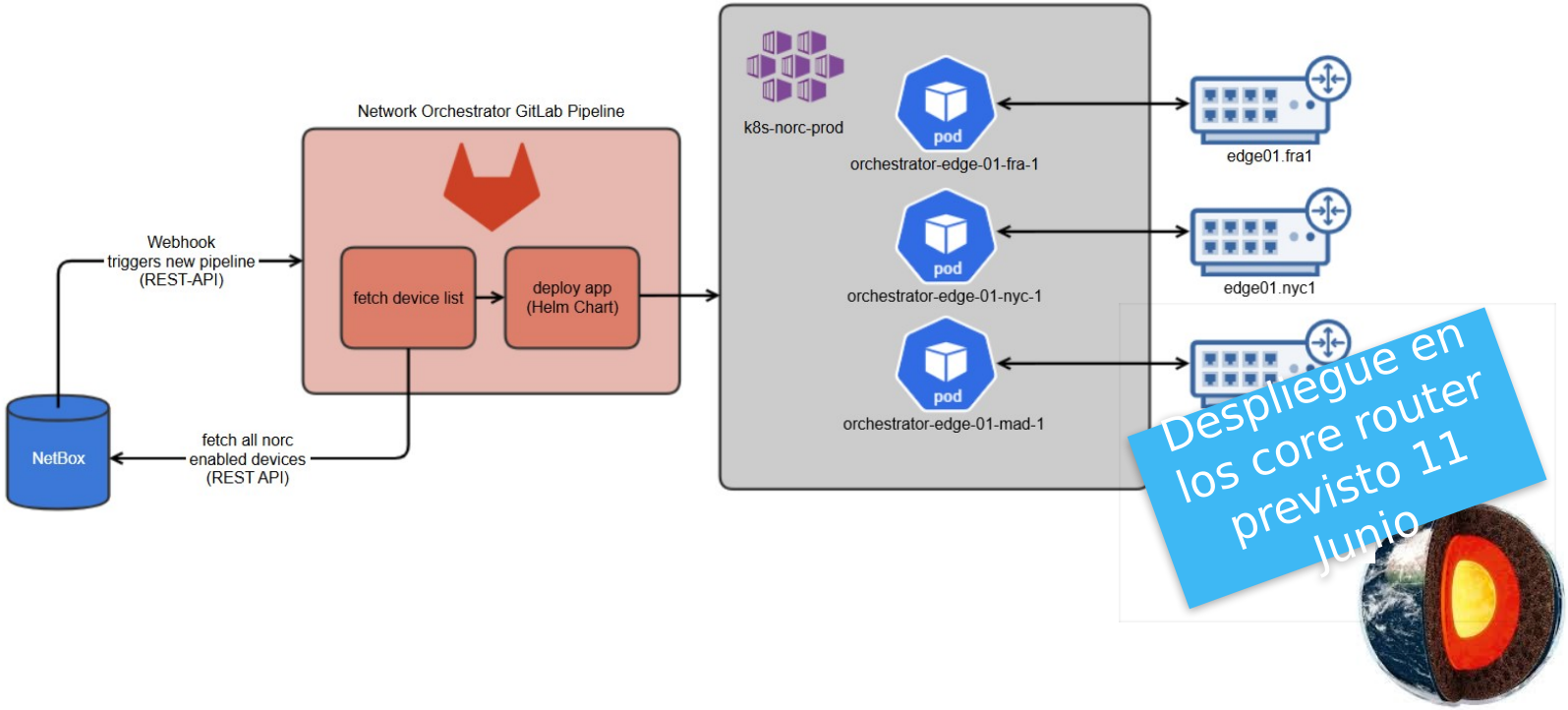
DE-CIX

MFA en portales

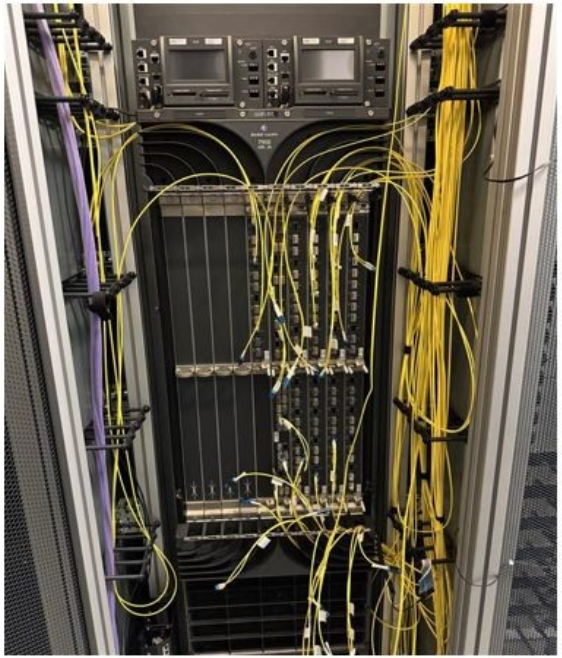
KEYCLOAK

DE CIX

Network Orchestration



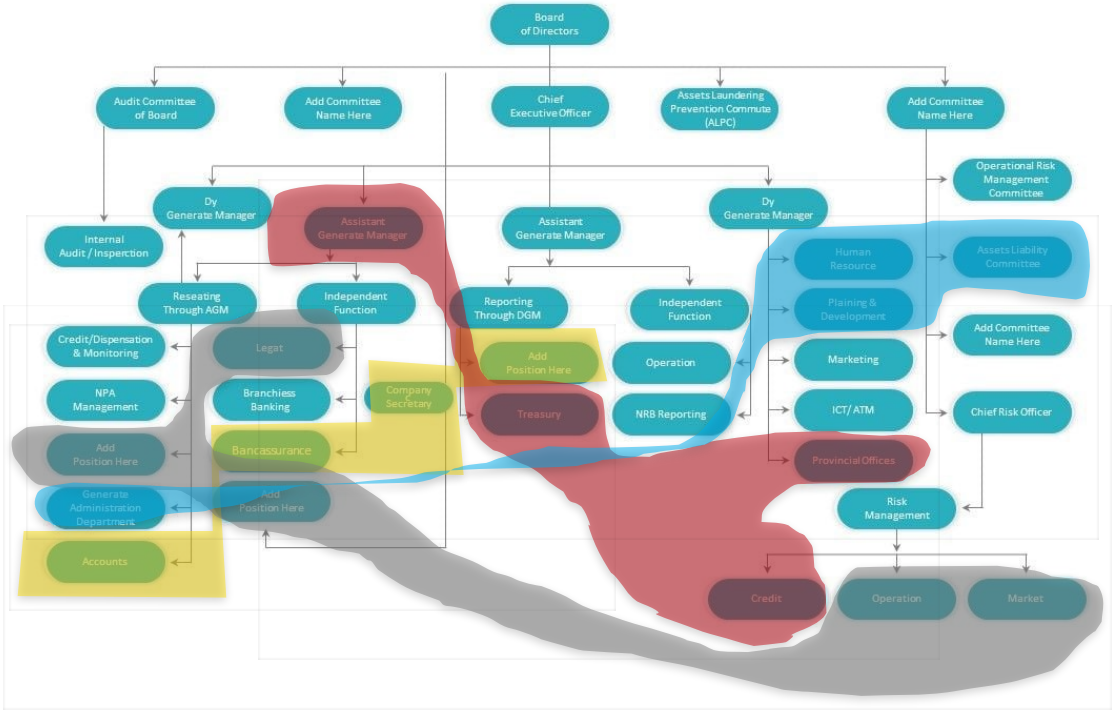
Renovando los cores grandes



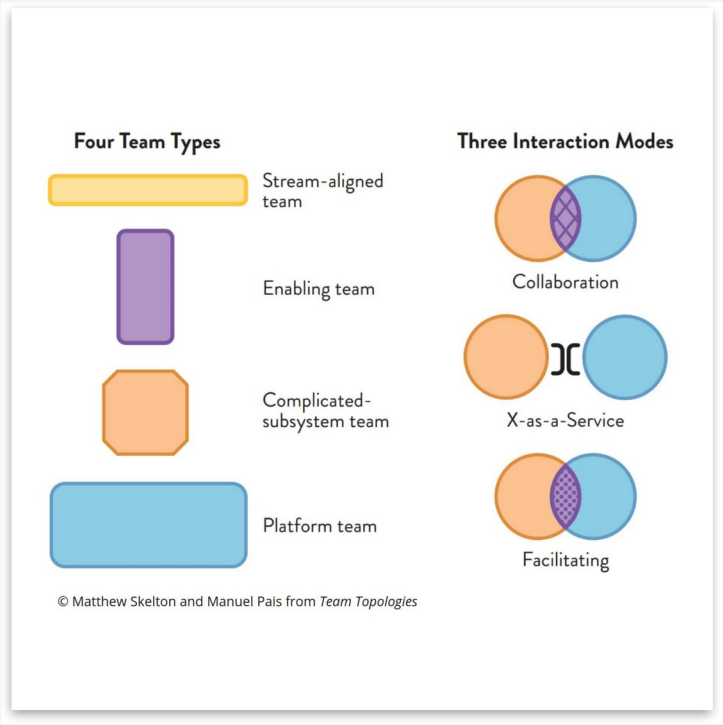
2013

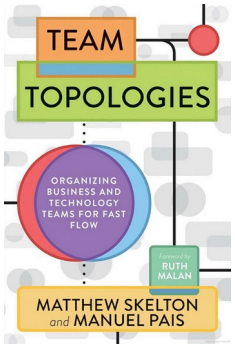
2025

Colaboración entre 110 ingenieros

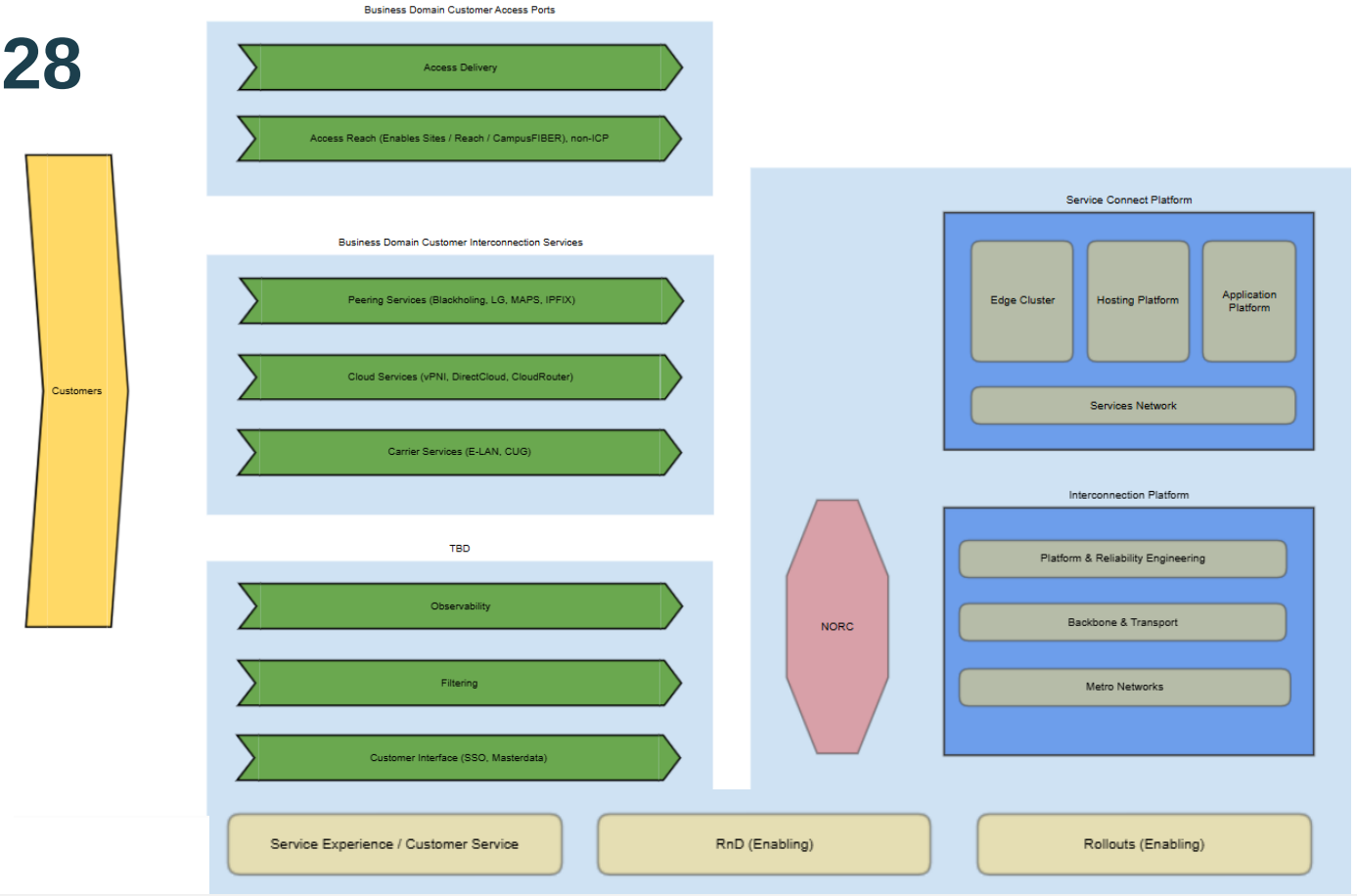


Reorganizándose… *como ingenieros*





2028


Business Domain Customer Access Ports
Access Delivery
Access Reach (Enables Sites / Reach / CampusFIBER), non-ICP
Customers
Business Domain Customer Interconnection Services
Peering Services (Blackholing, LG, MAPS, IPFIX)
Cloud Services (vPNI, DirectCloud, CloudRouter)
Carrier Services (E-LAN, CUG)
TBD
Observability
Filtering
Customer Interface (SSO, Masterdata)
Service Connect Platform
Edge Cluster
Hosting Platform
Application Platform
Services Network
NORC
Interconnection Platform
Platform & Reliability Engineering
Backbone & Transport
Metro Networks
Service Experience / Customer Service
RnD (Enabling)
Rollouts (Enabling)

Queridos frikis, gracias por la atención

Marcos Sanz Grossón

Head of Global Software

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