DE-CIX

German Internet Exchange

Peering at DE-CIX

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DE-CIX is proud to be the Silver Sponsor of MENOG7

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Mission

DE-CIX‘s mission is to provide premium Internet exchange services offering friendly and courteous service at all times.

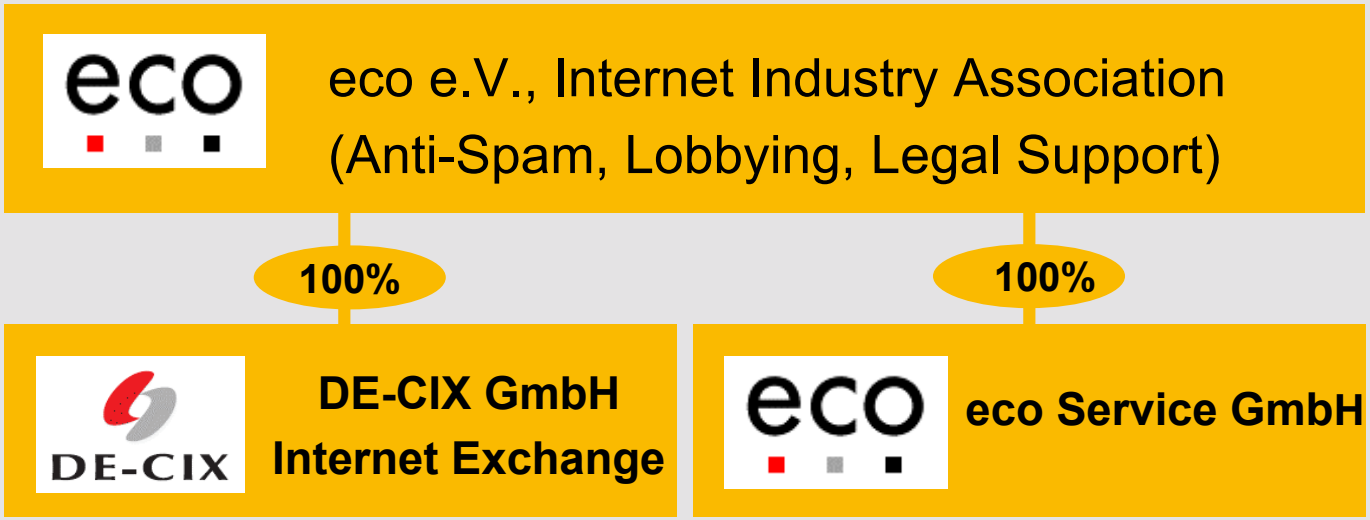
We believe that the established peering model is an essential part of todays Internet infrastructure and is here to stay.

About DE-CIX

- Leading Internet Exchange in Europe based in Frankfurt/Germany
- Small regional exchanges in Munich and Hamburg
- Founded in 1995

- Main business: Public peering
- One stop-shop: Public peering, private peering (dedicated fiber interconnects), colocation incl. remote hands/eyes

About DE-CIX


eco e.V., Internet Industry Association
(Anti-Spam, Lobbying, Legal Support)
100%
100%
DE-CIX GmbH
Internet Exchange
eco Service GmbH

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Why Frankfurt ?

- Frankfurt/Rhine-Main is Germany‘s 2nd largest urban area with a population of over 5 million
- Financial, logistic and telecommunications capital of Germany
- 11 colo operators with 200,000 square meters of space
- Biggest hub for Voice and IP traffic in Central Europe
- Single sites have 280+ carriers / ISPs connected
- Telegeography recently ranked Frankfurt No. 1 Internet traffic hub in Europe (2009)

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Main Service: Public Peering

- This is an efficient and cost effective service designed to reduce IP-transit and network costs by aggregating all kinds of ISPs on a single Layer 2 switching platform
- This service will give you direct access to up to 350 networks which will enhance the speed and reliability of your IP products
- The DE-CIX route-server will get you free access to nearly all networks immediatly – without the hassle to negotiate peering agreements with every potential peering partner

The value of an Internet Exchange

- Get direct access to many routes which are relevant for your broadband customers
- gain control over your routing and quality (Ex. Latency, Packet loss)
- Increase revenue from multihomed customers
- Lower transit cost

- Talk to us. We are happy to discuss what IX might be the right one for you and we are happy to help you put your Peering Policy together.

Numbers

- 10+ million EUR revenue (forecast 2010)
- 18 staff YTD (3 in 2006)
- 370+ customers from 45+ countries
- 800+ 10GE Ports operational
- Service available in 13 different neutral DC

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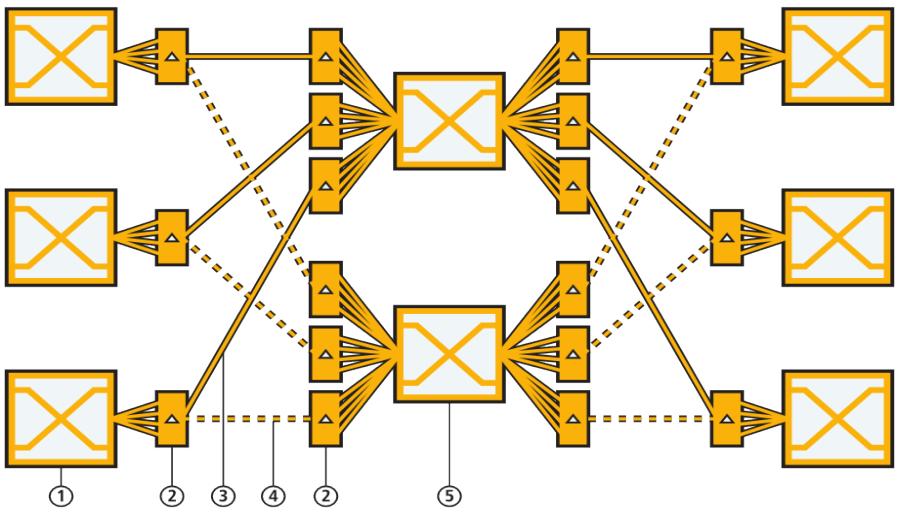
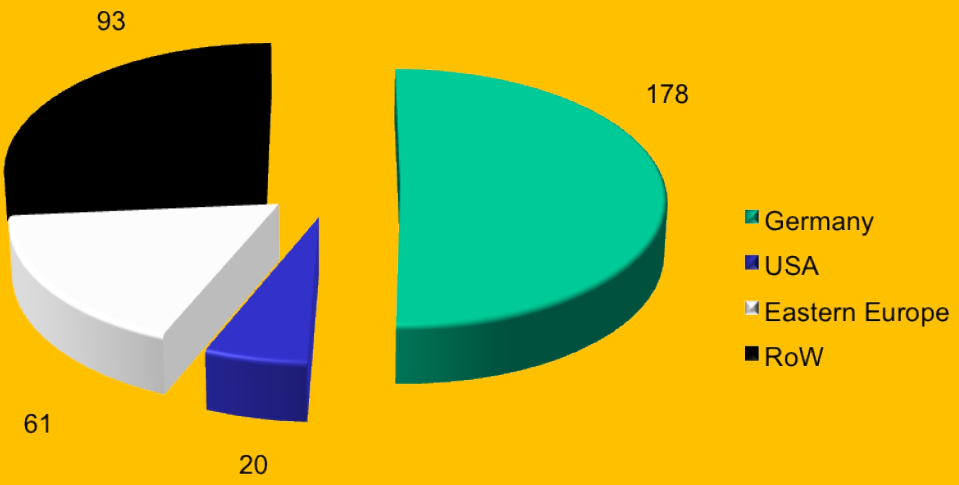
DE-CIX Topology

DE-CIX Topology 2010



① Access Switches (Force10 TeraScale/ExaScale)
② 160 Gbps DWDM Systems & Fiber Protection Devices
③ Dark Fiber Backbone
④ Backup Dark Fiber Backbone
⑤ Production and Backup Core Switches (Brocade MLX 32)

Status Quo: Customer Distribution 2010



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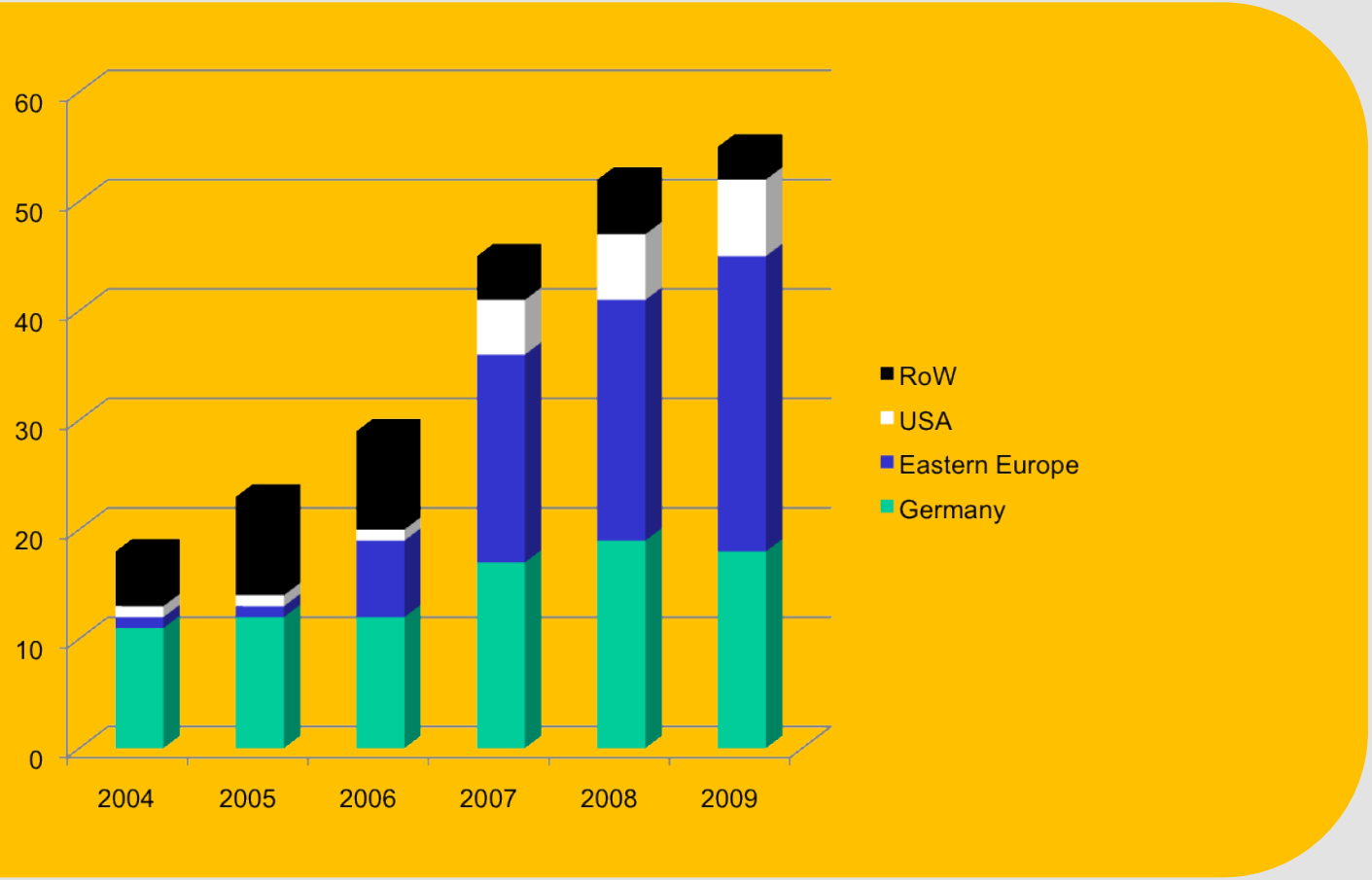
Growth, New Customers 2004-2009



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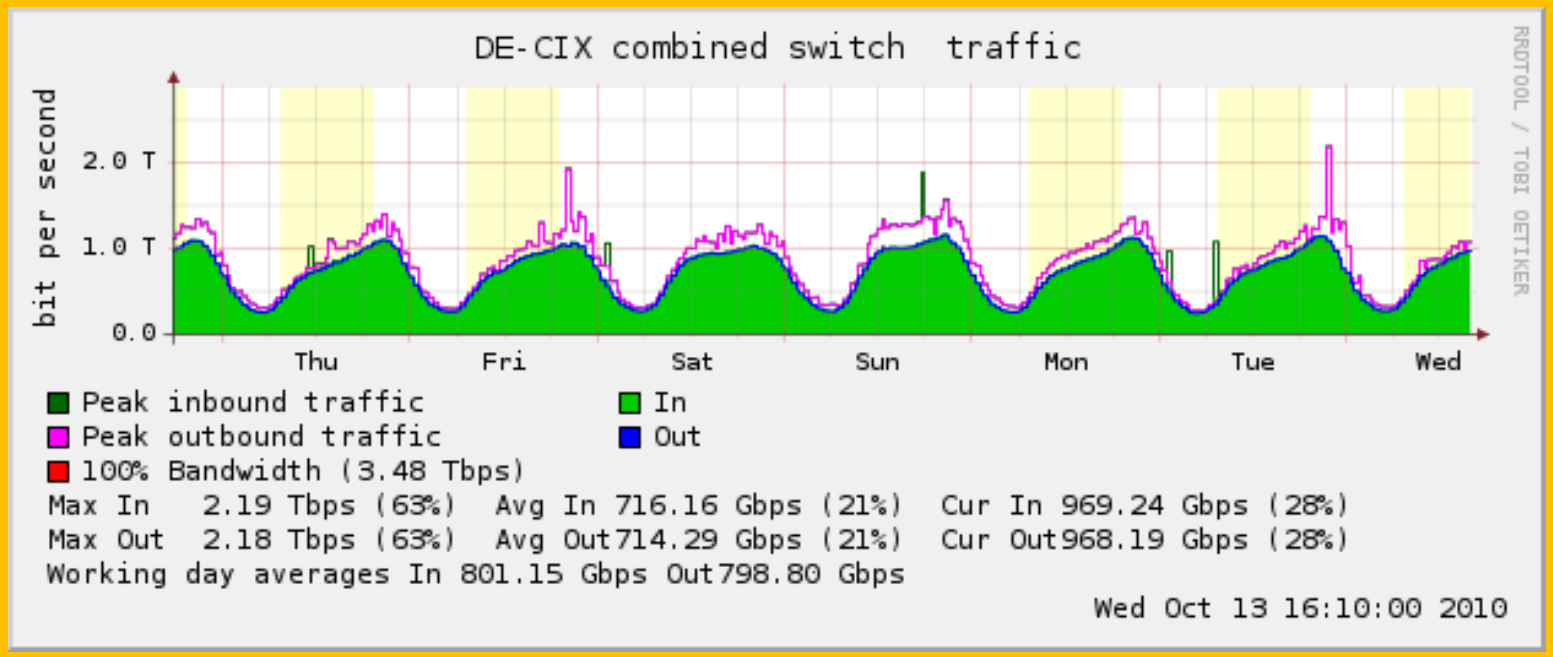
Total Traffic, October 2010



How to Connect to DE-CIX

1) National backbone to seacable landing station
2) Backhaul to Europe
3) Terrestrial extension to DC location in Frankfurt

plus

A) termination to a router and inhouse fiber to the peering switch or

B) inhouse fiber from carrier demarcation to peering switch (only if circuit provided is 10GE; LAN PHY, WAN PHY on request)

Customers from the Region

- *descr: 013 Netvision, IPV6: Yes
- *descr: Bezeq International, IPv6: Yes
- *descr: Qatar Telecom, IPv6: Yes
- *descr: Etisalat, IPv6: No
- *descr: 012 smile, IPv6: No
- *descr: Turk Telekom, IPv6: No

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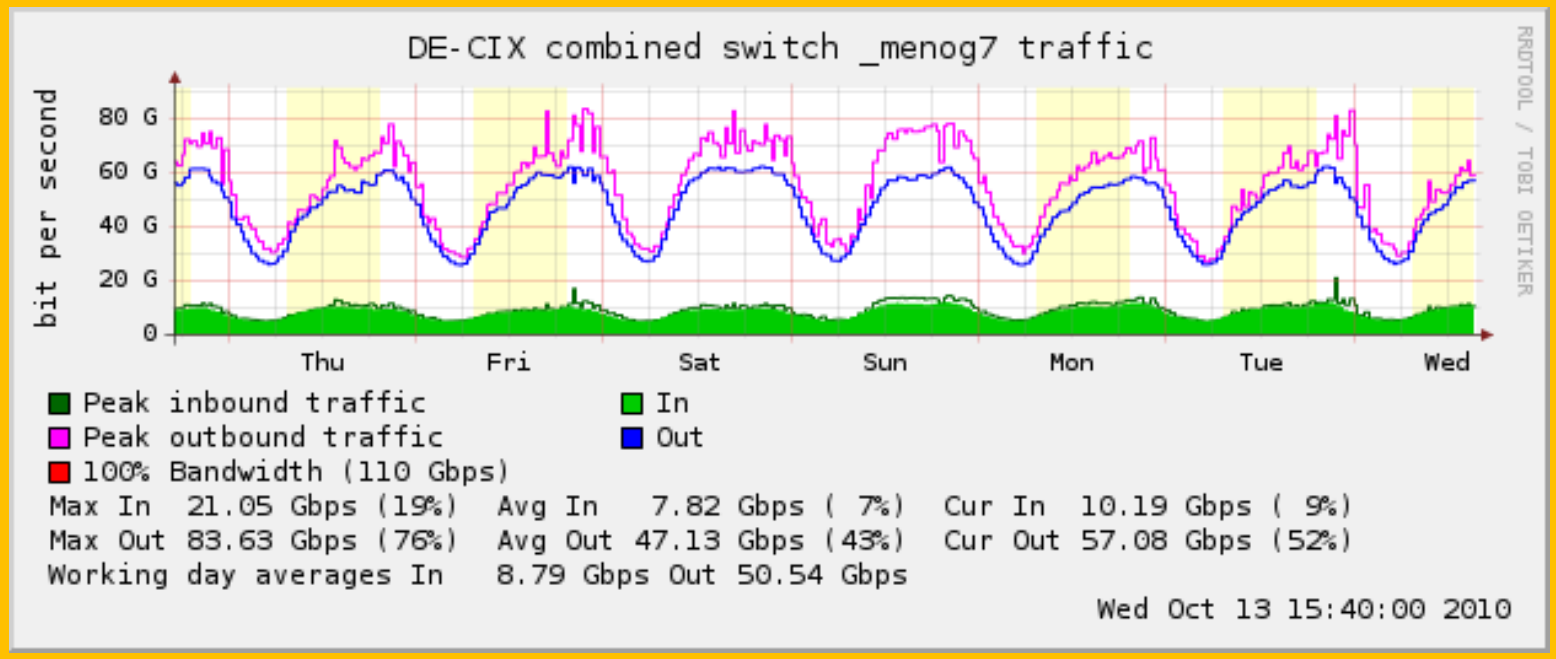
Peering Traffic Originated/Destined to ME



Key Findings

- the majority of the traffic destined to the region is backhauled from Europe; this incl. rich media content from major players (such as Google, Maktoob...) and CDN‘s
- Traffic has grown by 100+ % in the last 12 month
- total bandwidth connected 110Gbps
- No single GE connection ☺

DE-CIX Consulting

- started in Q1/2009, successfully finished phase I of a project for a regulatory authority in the GCC
- Focussed on IXP and data center related projects (incl. fact finding, feasibility study, solution design)
- Current team of 4 experts incl. 50 years of combined experience in IXP, DC development and Ops, regulatory/legal and marketing/sales know-how
- Focus on Middle-East markets.

Challenges Found in the Region

- Markets are not liberalized, monopolies or duopolies in many markets
- No neutral data centers
- No local content market, almost no CDNs are present
- Transit pricing in the neighborhood of 100-150 EUR/Mbps (mainly due to backhaul cost)
- Lack of robustness and resilience of connectivity
- ...

Opportunities

- An IXP will help to improve the overall Internet performance and to create a broadband experience that is similar to one in a well developed country.
- The right regulatory and market framework will motivate players to deploy content and CDN servers.
- It will give foreign carriers a proper environment to operate in rather than building special „resale“ solutions with the incumbents.
- The early birds have a competitive advantage and can build the world‘s next big Internet hub.

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Thanks !

Find me on:

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- Xing
- Facebook

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