10:00 - Welcome to the DE-CIX Technical Meeting

DE-CIX
Harald A. Summa
Chief Executive Officer
Welcome to the DE-CIX Technical Meeting

Harald A. Summa
Chief Executive Officer
Community
Innovation
Services
Service Structure
Let’s talk how we will make peering managers’ lives easier.
10:15 - DE-CIX Update

DE-CIX

Thomas King
Chief Innovation Officer
Service Structure
DE-CIX DUS, HAM, MUC: Latest Results
BGP Communities for Origin Location

Add BGP communities of the origin of the routes (Route Server only):

Example:
- Routes that originate from Switch 1 at DE-CIX HAM are tagged with <65535, 1>
- Routes that originate from DE-CIX HAM are tagged with <65535, 10>
- Routes that originate from Germany (DE-CIX HAM, DUS, MUC, FRA) are tagged with <65535, 1000>
- Routes that originate from Europe (DE-CIX MAD, ..., DE-CIX FRA) are tagged with <65535, 1000>

Control distribution of routes based on BGP communities (Route Server only):

Example:
- Routes tagged with <65536, 1> are only distributed to peers connected at Switch 1 at DE-CIX HAM
- Routes tagged with <65536, 10> are only distributed to peers connected at DE-CIX HAM

Use Cases:
- „Too far“ away peers can be priorities / filtered
- Local routes are preferred. Remote routes are second best choice.
- Redundancy of the route servers can be used
Malicious Activities of (Ex-)Customers
We don’t like them...!

Spammers

IP Hijackers

DDOS Stressers

We suspended DE-CIX services for...

4 customers with malicious activities
If you see malicious activities please inform him support@de-cix.net

We will investigate and talk to customers
→ In case of repeating malicious activities we will suspend DE-CIX services
Introducing: DE-CIX Academy

Sharing our knowledge

Wolfgang Tremmel
Head of DE-CIX Academy
→ Share our knowledge

→ Interaction with customers & prospects

→ Promote peering
What? Share Knowledge

People

>80 employees @DE-CIX Frankfurt

Expertise

- Network management
- Network operations
- Peering
...and much much more

Empowered customers

...that better utilize their resources to:
- increase quality
- lower costs
- use DE-CIX products to the max!
How? Interaction with Customers

- our customers & prospects’ home
- knocking at the doors one by one, or meet at industry events
- visit us at one of DE-CIX’s office but travel cost!?

Webinars
- share, learn, meet, whoever, wherever
DE-CIX Academy Webinars

- Free of charge!
- Open to everybody
- Topics related to peering and Internet
- 30 minutes of length
- In English or German language
- Twice a week (usually Tuesdays and Thursdays)
Backstage of the DE-CIX Academy Studio

Let's have a closer look!

Lights!

Keep out!

Microphone (Røde USB)

Webcam

Monitor
6 Topics already covered as Webinar

- "Looking Glass"
- "Routeserver – How we filter prefixes"
- "Peering Tools"
- "Basics: how does Traceroute work?"
- "Blackholing at an Internet Exchange"
- "IP: Time To Live - what happens if it hits zero?"

Now archived & available for anytime viewing on www.de-cix.net
What Else? Training Videos

How to get started with peering

The video shows the very beginning of how to get started with peering, how to activate your network, how to set up the interconnection process, and how to exchange routes.

What is an AS number

The video answers questions like “what is an AS number” and “how do I get one.” Having an AS number is necessary to join the Internet exchange site, DE-CIX.

DE-CIX Service Insights: Implementation of the system

The video shows how the DE-CIX Service Insights system works, what software and hardware is used, and what data is collected and stored.

now available on www.de-cix-net
What else? Onsite Trainings

Elements of Peering

- Half day presence trainings
- For peering managers new to their job
- Covering topics of peering and network administration

Peering Manager Training

- 3 day presence training
- For customers new to the peering world
- Covering a wide range of topics related to peering
Interested? want find out more?

Look at DE-CIX Academy on www.de-cix.net
Thank you!
10:30 - What's up DE-CIX Apollon – View into the laboratory

DE-CIX

Daniel Melzer
Chief Technology Officer
What's up DE-CIX Apollon – View into the Laboratory

Daniel Melzer
DE-CIX, Chief Technology Officer (CTO)
We have worked very hard for you!
Update on the DE-CIX “Engine” – We have worked very hard for you!

**Closer**
Efficient connection of smaller data centers – we come closer to you!

**Larger**
Use of the latest generation of hardware – we are gearing up for even more and larger customer connections and are ready for 400G!

**Better**
We are making our Routeserver even better! – „Der Vogel muss fliegen“
Even closer to you: more efficient connection with new datacenter

- New satellites from Nokia
- Acts as remote linecard
- Two use cases
  - Efficient usage of slot capacity
  - Remote connections
Fit for the Future: 400 GE Ports ante portas

2016: 100G is the new 10G
Still absolutely true!
Fit for the Future: 400 GE Ports ante portas

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Fit for the Future: 400 GE Ports ante portas

- Neck-and-neck race between OSFP & QSFP-DD MSA
- Expect first linecards & optics in 2018
- We are ready!
Routeserver 2.0 at a glance

„Der Vogel muss fliegen“
2016: we hit some issues in special circumstances with our Bird Testing & evaluation of routeservers more estimation than science

Something new is needed!

We created an exceptional testbed for routeservers. Fundament for rock solid operation & further development
Routeserver 2.0 at a glance
Routeserver 2.0 at a glance

Now...

1. We are going to develop next generation routeserver setup

2. Implementing of desired new features
We continue working hard!
Thank you!