

## → Welcome to the February release of DE-CIX Newsletter!

Among other topics, this newsletter brings you information about the ongoing expansion of the DE-CIX platform, the replacement of the DE-CIX route servers, and last but not least, the additional ALP-IX2 facility in Munich.

## → DE-CIX increases both edge and core switching capacity

In 2009 we have seen substantial growth fueled by continued customer satisfaction and the addition of 50+ new networks alone, taking the total number of customers to approx 350 participants who exchange almost 1Tbit/s of traffic.

To support that ongoing growth, DE-CIX has established a scalable dual core topology that currently consists of 11 edge and 2 core switches with Force10 Terascale E1200 switches on the edge and Brocade Netiron MLX-32 switches in the core of the network.

In January, DE-CIX installed its first Force10 Exascale switch at the DE-CIX4 facility at Kleyerstrasse 90 (which is the site that serves customers at ancotel, Databurg, ITENOS, and newtelco) increasing the total amount of switches in that facility to three. This new switch provides up to 140 line rate 10GE ports for additional connections at this site. Like all other edge switches the backhaul connection to the dual core is fully redundant. Customers can not only build Etherchannels by aggregating multiple 1GE or 10GE connections, they can also connect to two or three switches for maximum redundancy.



DE-CIX' Daniel Melzer after successful implementation of the first Force10 Exascale switch, internal ID „switch21“

In March, two more Exascale switches will be deployed at DE-CIX1 (Interxion FRA-1) and DE-CIX2 (Interxion FRA-3). Next, the core network will be upgraded in April 2010. A total of four carrier grade switches will provide a redundant core switching capacity of more than 2.5 Terabits/sec.

## → BIRD route servers now operational at DE-CIX

DE-CIX provides two route servers which simplify peering enormously for most exchange users. The route servers allow DE-CIX participants to set up one BGP connection to distribute their BGP information to all peering partners and in return to receive BGP information from all the others. This reduces the complexity of the setup and improves return of investment for the peering connection by allowing connected parties to quickly gain peering traffic. Even players with limited human resources who handle peering can take advantage of the DE-CIX Public Peering service.

Scaling route server implementations is not all that easy and turned out to be a real challenge. DE-CIX even developed its own test framework “Hoofprints” to have a solid foundation to compare route servers. Hoofprints is a framework for testing different route server implementations for stability, scalability, and correctness.

As a result of the intense testing, on February 24th, 2010, DE-CIX replaced one of its Quagga based route servers (RS1) with a new BIRD powered solution. BIRD was a project developed by the Faculty of Mathematics and Physics at the Charles University in Prague, with major contributions from Martin Mares, Pavel Machek, and Ondrej Filip. BIRD supports both IPv4 and IPv6 and has a robust design that differs significantly from other well known routing daemons. Route server #2 will follow on March 3rd, 2010. The long term plan is to have three route servers each with different route server software to deliver a rock solid route server service.



### → Executive Carrier Breakfast #3

On the morning of March 2nd, 2010, around 30 attendees gathered to join the third “Executive Carrier Breakfast” in the Frankfurt docklands. This event series is jointly organized by Interxion and DE-CIX. Participation is free but the Exec Carrier Breakfast is an invitation only event dedicated to c-level (e.g. CEO, CTO) attendees. The event is entirely focussed on providing both a valuable information resource, and facilitating business networking among managers.

At the most recent event an interesting keynote presentation about Broadband Access evolution was given by Axians’ Andre Track. It featured all available technologies, showing that FTTx technologies such as GPON/AON are the only solution for the future due to the scalability of fiber based infrastructure. Among the participants were senior level attendees from Deutsche Telekom, Interoute, Verizon, and various others.

If you run an ISP or carrier business as a CEO/Managing Director and would like to be considered for future participation, please contact [carolin.geib@de-cix.net](mailto:carolin.geib@de-cix.net).

### → ALP-IX 2 to be operational 25 March 2010 – join us celebrate at the upcoming Roundtable Meeting & Dinner

ALP-IX, the Munich Internet Exchange operated by DE-CIX, was originally started back in July 2008 at the Equinix data center at Hopfenpost and the idea was to finally bring a carrier neutral IX to the city. Since IXs operated under the flag of DE-CIX usually follow its customers and prospects, the decision was made to extend ALP-IX to an additional site where numerous players have operated POPs for years.

Yes – we have to admit it – from the idea to the realization of the ALP-IX we actually needed some time. Now we are more than happy to announce the ready for service date for the second ALP-IX Internet Exchange site in Munich. On March 25th, 2010, DE-CIX will fire up site #2 at the SpaceNet data center facility at Landsberger Strasse 155. Many of you know this address as the home of Cable & Wireless and INXS.

This is the first location where DE-CIX will use an Arista 7124S switch to provide services. It provides an additional capacity of 24 line rate 1GE or 10GE ports (incl. ports needed for the resilient backhaul to ALP-IX1).

To celebrate the launch of the second ALP-IX site, DE-CIX invites all customers and prospects to the 3rd Munich Roundtable Meeting & Dinner the night of March 25th. Join us for an evening with great food, Bavarian beer and peering chatter. And don’t miss out on a presentation on the ALP-IX evolution to be given by DE-CIX’s Bernhard Hahn. If you would like to attend please, sign-up by sending an email to [andreas.sturm@de-cix.net](mailto:andreas.sturm@de-cix.net).

If you are interested in joining ALP-IX and in learning how to save the service fee for the first 6 months, please contact us at [sales@alp-ix.net](mailto:sales@alp-ix.net).

### → DE-CIX to support PLNOG & MENOG

It always has been – and still is – part of the DE-CIX culture to support community driven events since they are vital to continue the growth and evolution of the Internet.

Past involvements include hosting RIPE in Berlin and DENOG (German Network operators group) in Frankfurt as well as being a returning sponsor of MENOG (middle-east NOG) and PLNOG (Polish NOG).

“DE-CIX is a vital part of today’s Internet ecosystem. Because of this it is our responsibility to support events which are driven by the Internet community. Especially in emerging markets it is important to support the NOG developments. Take MENOG as an example – this is a great development in an environment that clearly has room for improvement. Still, folks try to do their very best to advance the Internet in their region,” says the DE-CIX head of Business Development & Marketing, Frank Orlowski.

Meet DE-CIX staff at the upcoming PLNOG in Warsaw and at the MENOG in Riyadh. Contact [sales@de-cix.net](mailto:sales@de-cix.net) to schedule an appointment.

## → Registration for the IPv6 congress is open now

For the second time iX, heise Netze, and DE-CIX joined forces to produce the German IPv6 congress. The congress will take place on May 20th – 21st in Frankfurt. It is no longer a question whether we will have to introduce IPv6 or not, since the remaining IPv4 address space will be exhausted in 2011.

Last year’s event was fully booked three weeks in advance. For the 2010 event the hosts expect 400 attendees from the ISP, carrier, data center, and users community. Well known experts from the Federal Ministry of the Interior, DENIC, Deutsche Telekom, eco, Fraunhofer FKIE, Nokia Siemens Networks, and SpaceNet will give presentations and hold tutorials.

If you are interested in joining, you may want to register before March 31st, 2010, to take advantage of the early bird discount. More information is available online at <http://www.ipv6-kongress.de> (German language only).

## ASK DR. PEERING



Brought to you by [www.drpeering.net](http://www.drpeering.net) and DE-CIX. Any question: send an email to [askdrpeering@de-cix.net](mailto:askdrpeering@de-cix.net)



Dr Peering –

*In this economy, we are all nervous about spending money. Our exec team is caught like a deer in the headlights, requiring assurances that we never needed in the past. Do you have any advice about investing in infrastructure in this economy? I just don't see our exec team moving on anything.*

Wallace



Wallace

We were speaking of data centers at a VC dinner just last week and I got to tell my favorite data center story - the Ray the Hoster story.

→ Click here to read the full article: <http://tiny.cc/docpeeringfeb2010>

In 2001 the economy collapsed. Ray had been waiting in the wings. Rather than fretting, he seized the opportunity to buy a recently moth-balled data center for literally pennies on the dollar. The GenSets were still shrink wrapped, servers were half unboxed and still there. Qwest had lit the building before the building was shut down.

Ray was network savvy enough to identify which networking HW he could get also for pennies on the dollar on Ebay to get the building connected and to start his hosting company. He found the right combination of gear...

The monthly Ask Dr. Peering column is brought to you by [drpeering.net](http://www.drpeering.net) and DE-CIX, the exclusive IX sponsor of the Dr. Peering Internet peering knowledge center.

If you have a peering related question, send an email to [askdrpeering@de-cix.net](mailto:askdrpeering@de-cix.net) and your question might be answered in next month’s release.

## → UPCOMING EVENTS:

If you would like to attend any of these events, please register:

**APNIC29, 1-5 March, Kuala Lumpur,**  
www.apnic.net

**PLNOG4, 4-5 March, Warsaw,**  
www.plnog.pl

**ICANN37, 7-12 March, Kenya,**  
www.icann.org

**Capacity Balkans, 12-13 March, Bucharest,**  
www.capacitymedia.com

**IETF77, 21-26 March, Anaheim,**  
www.ietf.org

**MENOG6, 10-14 April, Riyadh,**  
www.menog.net

**GPF5, 12-17 April, Key West & Grand Cayman**

**ARIN25, 18-24 April, Toronto,**  
www.arin.net

**RIPE60, 3-7 May, Prague,**  
www.ripe.net

**IPv6 Congress, 20-21 May, Frankfurt,**  
www.ipv6-kongress.de

**NANOG49, 13-16 June, San Francisco,**  
www.nanog.org

**cnX4, 25-26 October, Frankfurt,**  
www.cnx-frankfurt.com

**DENOG2, 4 November, Frankfurt,**  
www.denog.de

Check the listed websites for more information.  
Listings in red are hosted or sponsored by DE-CIX.

**Contact Information:**

DE-CIX Management GmbH  
Competence Center Frankfurt  
Lindleystraße 12  
60314 Frankfurt am Main, Germany  
Phone +49 69 1730 902 - 0  
Fax +49 69 4056 2716  
info@de-cix.net

**Impressum:**

CEO/Geschäftsführer/V.i.S.d.P.:  
Harald A. Summa  
Company registration/Handelsregister:  
Registergericht AG Koeln, HRB 51135  
Headquarter/Zentrale:  
Lichtstraße 43i, 50825 Köln  
Tax ID / Steuernummer: 217/5726/0730

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## → NEW DE-CIX PARTICIPANTS

**DE-CIX welcomes its most recent customers:**

- Evolink, Bulgaria
- GlobalNet, Russia
- Magyar Telekom, Hungary
- Globalcom SIA, Latvia
- W-IX, Russia
- Netplace, Germany
- Nianet, Denmark
- IP Transit, USA
- PrimeTelecom, Cyprus
- Teliko, Germany

**Soon to be connected:**

- regio iT Aachen, Germany
- MOLDTELECOM, Moldova
- Wikia, Russia
- PIN, Russia
- Media Alliance, Russia
- Fiber Optics, Bulgaria

**Upgraded customers:**

(since February 1<sup>st</sup>, 2010)

- ITD Network
- Unitymedia
- Accelerated IT Services
- Rostelecom
- EWE
- SERICO
- China
- BTC Bulgaria
- Start
- Nauka-Svyaz