

# DE-CIX presentation at SwiNOG 9

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- ▼ **Special SwiNOG promo!**
- ▼ **Regular Services**
- ▼ **Network**
- ▼ **Statistics**
- ▼ **Do's and Don't**
- ▼ **DE-CIX history and context**

## ▼ DE-CIX offer

- no monthly fees for 2004
- 10/ 100 and 1000
- at TeleCity no set up costs as well
- one port only
- reduction worth up to 6.000€

## ▼ T-Systems offer

- no install charges
- three months for free
- minimum rental 12 months
- RFS  $\leftarrow$  2004-12-31
- contact Nicole Bernet

## ▼ managed IPv4 LAN

- 10/ 100, GE and 10GE untagged ports
- remote hands up to one hour / month
- unlimited mail support
- 24x7 help desk
- reverse mapping
- resilient route-server s
- IXP\_watched / arpwatched
- SmokePing, port statistics
- limited to 80% port usage → upgrade
- 600€ for 10/ 100, 1000€ for GE
- 2nd port only cost 1/3, i.e. 200€ / 334€

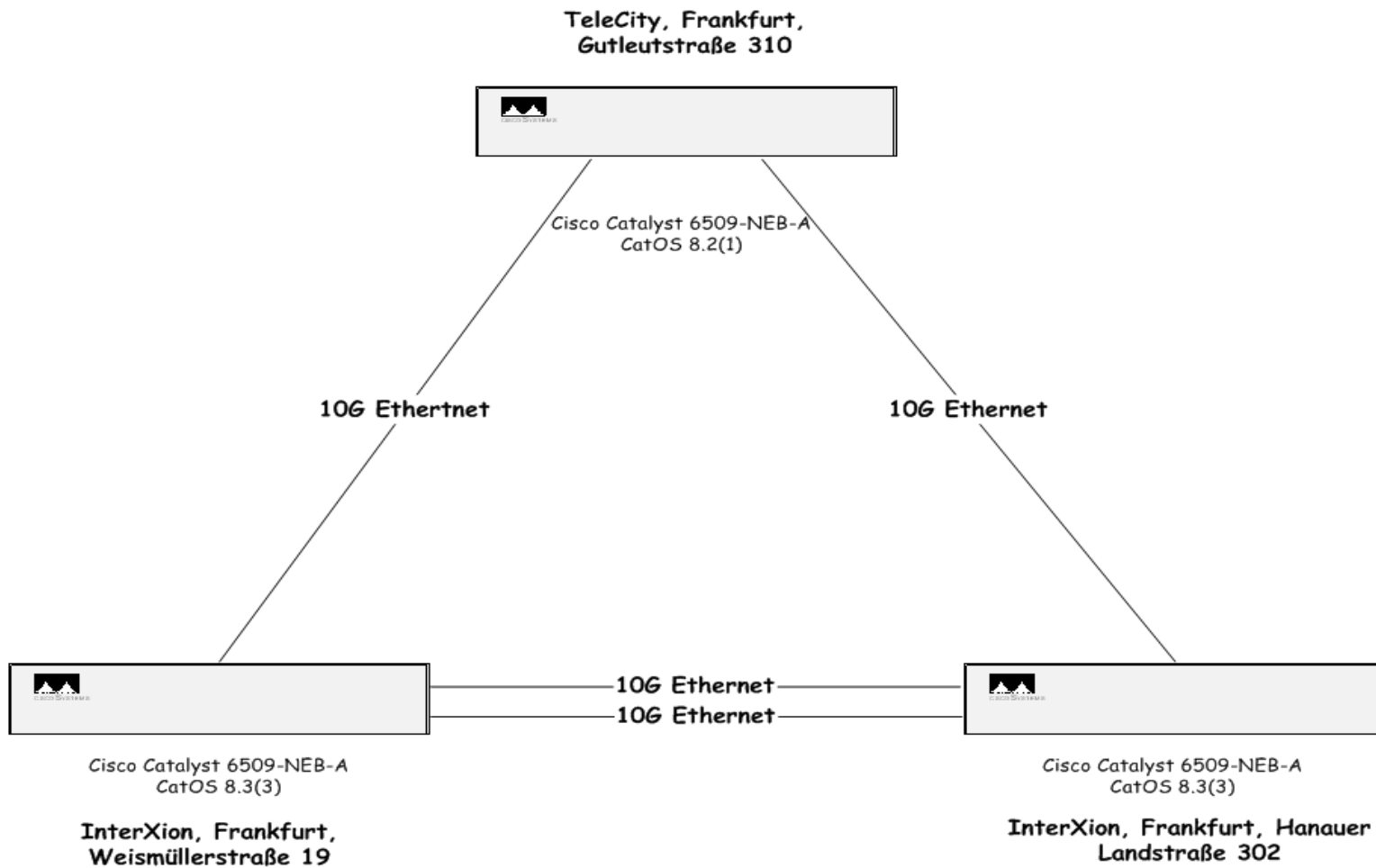
- ▼ **K/I-root anycast server attached**
- ▼ **RIPE RIS**
- ▼ **RIPE TTM**
- ▼ **direct connection to DeNIC**
- ▼ **NTP server (in preparation)**

- ▼ **Multicast (9 members, decreasing)**
- ▼ **IPv6 (34 members, increasing)**
  - also available on all IPv4 ports
- ▼ **10/100 ports only**
- ▼ **unlimited mail support**
- ▼ **reverse mapping**
- ▼ **arpwatched (if applicable)**
- ▼ **SmokePing, port statistics**
- ▼ **free of charge**

- ▼ point-to-point connections between two members
- ▼ available only within sites (i.e InterXion resp. TeleCity)
- ▼ intra- and inter-building
- ▼ handling/billing via DE-CIX
- ▼ installation/troubleshooting via InterXion/TeleCity
- ▼ one time fee
- ▼ implementation is currently revised to allow discounts and faster provisioning

- ▼ **No STP**
- ▼ **each Vlan has an owner which sets the policy**
- ▼ **tagged and untagged ports**
- ▼ **unmanaged and managed vlans**
- ▼ **managed vlans include**
  - address allocation/ management / mapping
  - hot line/ remote hands
  - router server





## ▼ Customers: 134

## ▼ Connections

- total: 187 total, 81 10/ 100, 106 GE
- DE-CIX1: 88 total, 39 10/ 100, 49 GE
- DE-CIX2: 96 total, 41 10/ 100, 55 GE
- DE-CIX3: 3 total, 1 10/ 100, 2 GE

## ▼ Throughput

- peak: 22.2 Gbps
- average: 15.8 Gbps

- ▼ **keep the topology simple!**
  - ideally three switches at three different locations
- ▼ **avoid Vlan 1**
- ▼ **control the border!**
  - BPDU guard
  - BPDU filter
- ▼ **keep the LAN clean**
  - sandbox / quarantine Vlan
  - IXP\_watch
  - arpwatch
- ▼ **keep maintenances short and watch Layer 3**

- ▼ founded back in Spring 1995 by EUnet (now UUnet), MAZ (now part of easynet) and Xlink (now KPN Eurorings)
- ▼ as no agreement on adequate legal entity could be found → pro forma working group within eco e.V.
- ▼ since 2004-01-01
  - DE-CIX Management GmbH
  - 100% owned by eco e.V. (Verband der Internetwirtschaft in Deutschland)
  - advisory board consisting of 2 DE-CIX members and 1 eco delegate

Pick up your  
DE-CIX  
T-Shirt