Deutscher Datacenter Markt

Nürnberg

16th October 2012

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AGENDA

1. **Data centre developments**
2. **Data traffic growth in Germany**
3. **Cloud computing**
4. **Market trends and factors**
5. **Market forecasts**

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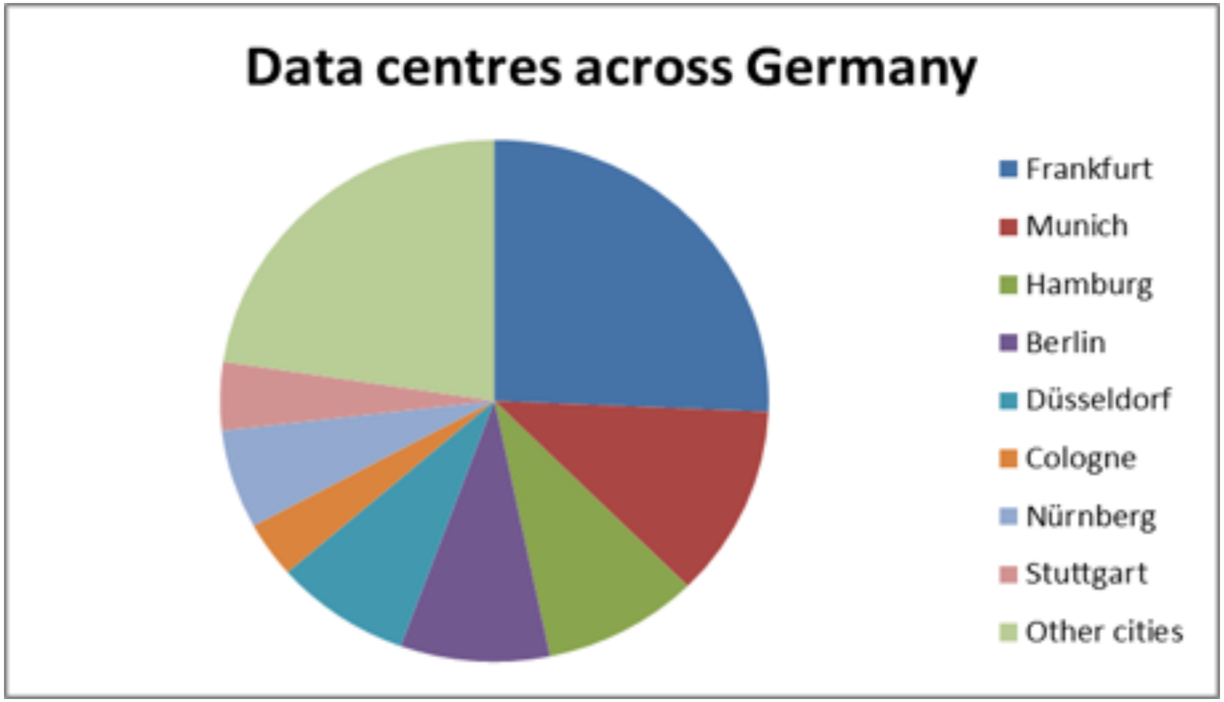
1. Data Centre Market Developments 2012

MORE THAN 200 CO-LOCATION SITES



Source: BroadGroup German Data Centres: Market Report 2011

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KEEN COMPETITION, ESPECIALLY IN FRANKFURT AREA

- **Buying decisions being taken at a higher executive level than in the past – data centre operators targeting their discussions at senior management**
- **Flexible negotiations - e.g. supporting incremental growth**
- **Players expanding their sales teams, e.g. Equinix, e-shelter and Interxion**
- **People with good data centre knowledge, understanding and selling skills at a premium in the marketplace**

GROWTH POTENTIAL

Outside Frankfurt

- **Growing need for 2nd data centre sites**
  - not all business users need low latency
- **Disaster Recovery and Business Continuity (DR/BC) in local areas**
- **'Trusted brand' local relationships**
- **Local business eco-systems**
- **Wholesale data centres in places like Berlin**

FRANKFURT – THE HOTSPOT FOR DATA CENTRES

Drivers include:

- Attraction of Frankfurt as a Tier 1 city – on a par with London, Paris and Amsterdam
- Major business hub and position as a world financial centre
- International connectivity and low latency
- Growth of industry sector eco-systems within data centres
- Robust power infrastructure and power supply

Source photo: www.holidaygermany.com

FRANKFURT 2012 MARKET CHARACTERISED BY…

Expansion

- **Interxion FRA 7** – April 2012
- **TelecityGroup** – Gutleutstraße +2.6MW
- **e-shelter Frankfurt 3** – opening Nov 2012

Consolidation

- **ancotel acquired by Equinix**
- **Databurg acquired by Telehouse**

New moves (cloud)

- **VPS.NeT** – increasing global footprint for cloud hosting
- **BT Global Services** – Tier 3+ HD 5,000m² for IT hosting & cloud
- **Savvis** – new regional HQ opened May 2012

Potential commercial space available is currently estimated up to 200,000m².

FRANKFURT AS A DIGITAL HUB FOR EUROPE

Digital Hub e.V, founded in 2012

Cross-sector
Data centres playing a key role

Founding Members
- Ancotel GmbH
- DE-CIX Management GmbH
- FIZ Frankfurt Biotechology Innovation Center
- Goethe University
- Infraserv GmbH & Co. Höchst KG
- INM – Institute for New Media
- Interxion Deutschland GmbH
- NRM Netzdienste RheinMain GmbH
- Wirtschaftsförderung Frankfurt GmbH

Regular Members
- Commerzbank AG
- Franfurter Volksbank eG
- Equinix Inc

DIGITAL HUB'S GOALS ARE…

- **Create a functioning network linking together industry, science and public institutions and position Frankfurt am Main as digital infrastructure city in Europe**

- **Promote research and development**

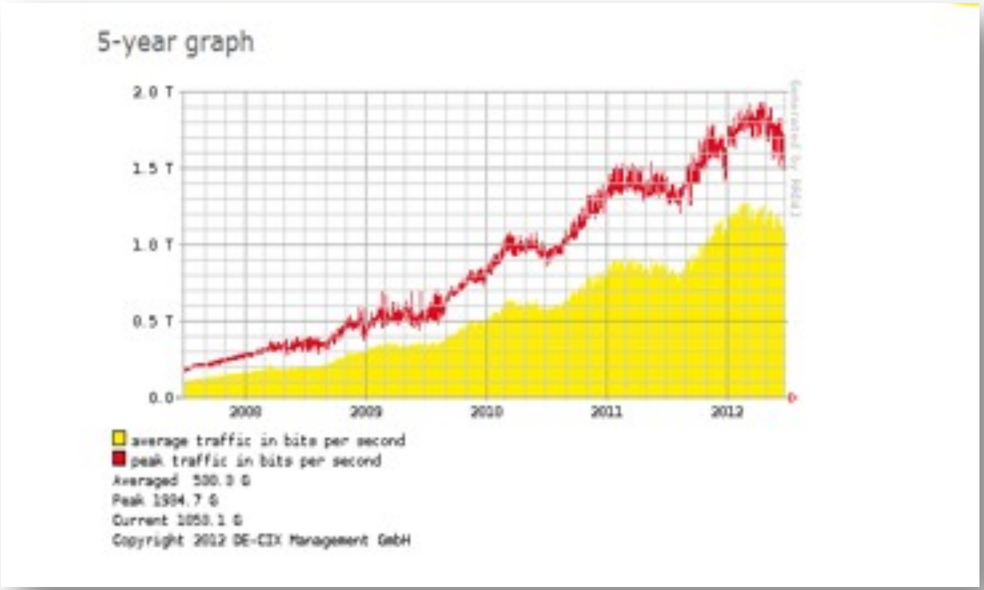
- **Boost the FrankfurtRheinMain digital infrastructure expansion**

Digital Hub hopes that the city's data centres will support Frankfurt in its bid for the title of "European Green Capital" 2014

2. Data traffic growth in Germany

DATA TRAFFIC GROWTH – RISING YEAR ON YEAR

DE-CIX annual traffic statistics 2008 – 2012



Peak time Internet traffic nearly 2 Terabits/s – up from 1.4 Terabits/s in 2011

DE-CIX expects traffic to increase by factor of 20 from 2011 to 2015

Source: ©http://www.de-cix.net/content/network/statistics.html/

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Drivers include evolving technology, new routes…

TECHNOLOGY

Mobile data is a key component of Internet traffic growth

- Video = 50% mobile traffic
- Mobile traffic will grow x15 to reach 2.1TB by 2016

(forecast: BitKOM, BNetzA ,Solon)

NEW ROUTES

ancotel's data centre is one of the three new Europe-Persia Express Gateway (EPEG) hubs chosen in Western Europe

- 9,430km EPEG fibre system - a direct route to the Gulf region

Cross industry collaboration and new value chains

- ICT Co-operation models

(publishers, game developers, music & film producers)

- Infotainment platforms e.g. Audi

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3. Cloud Computing

CLOUD COMPUTING IN GERMANY

Source: BitKOM and Neue Medien e.V, Berlin

Today in Germany:
SaaS = >50%
IaaS = 30%
PaaS = <10%

Deutsche Telekom cloud computing sales €500M

SAP AG focused on integrating cloud services across value chains & sectors

Growth of cloud computing forecast 25% p.a. from 2014

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CLOUD SERVICE DEVELOPMENTS – IaaS

Data centres providing cloud infrastructure

- **T-Systems market leader in secure cloud services**

  'Cloud Readiness Services' designed to address the complete 'Business, ICT and Service Framework' (BIS) to support customers with infrastructure, usage, processes, cloud strategies and building migration paths

- **Cloudgermany.de implemented IaaS at Interxion's Frankfurt data centre**

  IaaS solution includes virtual servers operated in completely closed multi- tenant systems
  B2B customers include DAX-listed companies and innovative German medium-sized companies

- **New entrants from outside Germany with virtual data centre cloud services**

  - Tieto (Finland), Frankfurt; targeted medium sized companies in DACH region
  - Claranet UK – launched VDC service in Germany in April 2012

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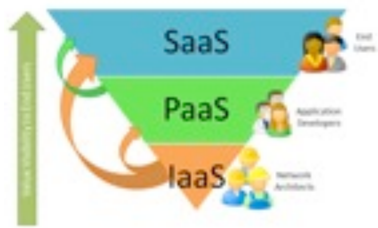
CLOUD SERVICE DEVELOPMENTS – PaaS



Relatively small market
Vendors making a strong push
Key growth area

E.g. Microsoft - new operational model that encourages web hosters to be wholesalers -
Upgrading platform products to offer a 'Best in Class' management service for service provider clouds and a complete cloud platform

E.g. Dell - offering OpenStack-Powered Cloud solution in Germany (March 2012)
Working with Morph Labs to productise skill sets to offer a modularised mini data centre.
Focused on speed (deployment weeks not months), agility, 'easy scale out'
Aim to enable web hosters to compete against suppliers like Amazon
Dell will apply its Open Source strategy to storage

CLOUD SERVICE DEVELOPMENTS – SaaS

SaaS popular amongst SMB companies
Systems integrators have a central role

Quotes at World Hosting Days 2012 in Germany:

"SMB hosted services market is growing 75% a year….
The traditional SMB IT Ecosystem is being replaced by more ISVs providing narrow and targeted applications. 'Last mile' software is becoming important." CEO, Parallels

"The battle is to help enterprise and SMBs to go to cloud and then next battle to help them scale. ….SMBs will move to public clouds and will end up buying SaaS. …
Systems integrators will build mid-size clouds and become service integrators building for SMB client: 'Trust me, you know me, come to this cloud'." CEO, Scality

CLOUD AND NATIONAL BORDERS

- **BSA Global Cloud Computing Scorecard**
  Germany near top of league -high level of data protection http://portal.bsa.org/cloudscorecard2012/

- **‘German clouds’ discussion** - data protection, compliance, auditing issues
  Reasons…
  - **Competitive advantage**: e.g. Deutsche Telekom *“its an enormous potential”*
  - **Politics***:* positive impact of digital services sector on GNP
  - **Users***:* data centres within easy reach – security very important, also disaster recovery & consolidation strategies

- **Many organisations oppose this narrow view of cloud**
  e.g. SAP and Eurocloud
  Deutsche Telekom also supports idea of “European Cloud”

MOVES TO ADDRESS CLOUD SECURITY

EuroCloud - goal is to make cloud certification accepted as 'industry standard practice' alongside ISO and DIN certification

E.g. working groups for

- **Legal & Compliance**
- **SaaS Seal of Approval**
  - guarantee level of service quality and trusted relationship
  - ensure provider meets a set of core user requirements

Trusted Cloud Projects

- Federal Ministry of Economics & Technology funding €100m /3.5 years
- 14 R&D projects working with private companies to commercialise results
  - Basic technologies, Industry, Health & Public Sector

  http://www.trusted-cloud.de

4. Market trends and factors

MARKET DRIVERS IN THE LAST 12 MONTHS

- More competition due to the increase in available resources (Frankfurt)
- Growth in the number of international companies looking for services
- Increasing demand from cloud service providers and large enterprises (building private cloud) for powerful, flexible and well-connected infrastructures
- New builds to fulfil customer requirements

CUSTOMERS DEMANDING MORE FROM THEIR SUPPLIERS

- Users expect operators to deliver high quality services even at short notice
- Customers more knowledgeable about what they need
- Trusted relationships very important to customers
- Customers asking for audited datacentres (e.g. ISO, TUV, eco Star)

5. Market forecasts

GROWTH OUTLOOK - OUR FIGURES REVISED IN 2012

Comparison of BroadGroup's five year forecasts for the German data centre market

Source: BroadGroup, 2012

GROWTH BY MARKET SEGMENT

German gross m² data centre space by market segment

Wholesale is largest segment - 32%

Individual co-location operators have varying forecasts, in terms of data centre space for next 3 years, between 13% - 25% CAGR growth

Managed services growth will slow as 'secure' cloud services develop in the national market

Growth in carrier owned data centres will flatten as legacy data centres are replaced

Source: BroadGroup, 2012

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THE BUSINESS OPPORTUNITY

- Developing customer and partner eco-systems in data centres
- Helping large companies to locate close to their value creation partners in order to optimise connections (cost and latency)
- Systems integrators increasingly important role as a channel to Mittelstand users, can help users to understand the benefit of using third party facilities

The ability to find the right legislative balance in dealing with data protection and cloud security will impact shape of 3rd party data centre market in Germany

Danke schön

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