CLOUD 2.0 FOR ISV

Ralf Hülsmann

Cloud ISV - New Routes to Market

Bonn, January 23rd
Deutsche Telekom: International leader for connected life and work

T-SYSTEMS: DEUTSCHE TELEKOM’S CORPORATE CUSTOMERS ARM

Deutsche Telekom. Facts and figures:
- More than 182 million customers
- 50 countries and 230,000 employees worldwide
- No. 1 on German market: telecommunications, mobile, IT
- Own data centers and networks around the world
- Revenue of € 58.2 billion
T-SYSTEMS
ICT FOR CORPORATE CUSTOMERS

- For public sector institutions
- For multinational groups from all sectors
  - Automotive industry
  - Manufacturing industry
  - Telecommunications
  - Financial sector
  - Retail
  - Services
  - Media
  - Energy
  - Healthcare
- Employees: 52,700
- Revenue: € 10 billion (2012)
PROFILE RALF HÜLSMANN

RALF HÜLSMANN
Business Development Manager Cloud | Cloud ISV - New Routes to Market

Born in 1967, with T-Systems since 2010
Education:
Commercial education, early internet entrepreneur

CORE COMPETENCIES

- Innovation Consulting
- Bid Management
- Solution Architect (Cloud, Infrastructure)
- Ramp Up & Business Development

REFERENCES

- Cloud Solutions since 2006
- Cloud Big Deals (Bid, Solution)
- Consulting and Sales
- Cloud Portfolio & Business Development

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CONTENTS
CLOUD 2.0 FOR ISV

1 CLOUD STATUS QUO

2 2.0 TOPICS

3 T-SYSTEMS & ISV

4 LESSONS LEARNED

5 SUMMARY
EVOLUTION IN IT
HISTORICAL

Mainframe adoption rate
~15 Years from early adoption to peak

Source: Mahajan and Muller

Accelerating enterprise Adoption of each new wave of computing

Source: Teng

Virtualization Adoption (10-years)

Cloud Adoption (10-years)

Source: Lazard Capital Markets Analysis and CSG Analysis
THE PACE OF CHANGE IN THE BUSINESS IS ACCELERATING

Time to 50 million users:

- Radio: 38 years
- Television: 13 years
- Internet: 4 years
- Facebook: 1,096 days
- Google+: 88 days

Did not exist 10 years ago, and today have millions of subscribers and offer high-quality services at no-charge.

Are an integral part of the current teenagers social sphere.

Email replaced by short messaging.
“Search engines” deploy WiFi networks

Public cloud provider start to supply large private cloud services

Retail changes driven by cloud based companies

Complete new technologies are driven by cloud demand

Technology bridges never expect – now mature solutions

Press Releases

CA Cloud Storage for System z Backs Up Data to the Cloud When Used with Offerings from Amazon Web Services and Riverbed Technology

CA Technologies Helps Customers Improve Storage Management Operations and Slash Data Center Storage Costs to Pennies per Gig
DEUTSCHE BÖRSE DID ALREADY LAUNCH A BROKERAGE MARKET

The Deutsche Börse Cloud Exchange AG is the latest innovation from Group Deutsche Börse and was founded in May 2013.

**Mission:** Deutsche Börse Cloud Exchange is creating a commodity market for IaaS resources that will make the trading of cloud computing quick, efficient and secure for every market participant. Their mission is to provide cloud services of unsurpassed stability and consistency, enabling consumers to confidently extend their business into the cloud without compromise.

HAVE YOU HEARD?

There is already a stock exchange company that has launched a cloud broker market.

Now in test drive.

Source: http://dbcloudexchange.com
SUCCESS STORY
FEDERATED SCIENCE CLOUD

THE CHALLENGE
- Large amounts of resources
- No single cloud provider can meet the demands and manage the business risks
- Co-opetition with other European cloud providers
- Technical solution and governance model for cloud service management and brokering
- Low budget project – lack of resources

THE SOLUTION
- Dynamic Services for Infrastructure vCloud
- Multi-cloud solution with cloud manager – Enstratius
- Adoption of cloud software stack by T-Systems SI

LAUNCHED 01/2013
T-Systems did implement broker solution (CBS)
Besides trends to “faster, bigger, cheaper” as part of regular evolution, common predictions are towards better usability and improved integration (on/off premises, as well as application).

The missing pieces to make it come true:

CLOUD BROKER SERVICES
INTEGRATION
AUTOMATION,
ORCHESTRATION,
PROCESS DESIGN,
IMPROVED IT ESTATE
MANAGEMENT
WHAT ABOUT ISV AND CUSTOMER APP’S STATUS QUO?

- Are the applications already „cloud native“ or „cloud aware“ and can make use of the automation /API to dynamically scale?
- Or are they „just“ packaged and virtualized software?
- What benefits do you expect from cloud, then?
## CONTENTS

### CLOUD 2.0 FOR ISV

1. CLOUD STATUS QUO
2. 2.0 TOPIC CLOUD
3. T-SYSTEMS & ISV
4. LESSONS LEARNED
5. SUMMARY
Cloud and ISVs.
That means new challenges & opportunities for your ISV business.

**Dynamic Markets**
Demanding & changing customer needs and business environment

**Secure Future**
How can I build trust in the sustainability of our solution?

**Data Privacy Concerns**
How can I handle all the different data privacy standards?

**Security Requirements**
Combine back-up & recovery with business continuity

**Stand out in the Market**
How can I make a difference?

**New Markets & Customers**
How can I enter new markets and gain new attractive customers?

**High Customer Requirements**
Consumption of IT; multi-device access; real-time business tracking

**High Performance Demands**
Speed, availability, scalability, flexibility, 24/7 service
T-Systems’ Offering for ISVs.
Overview of our ISV Cloud Platform strategy.

- **ISV Cloud Infrastructure**
  - For all ISVs
  - ISVs profit from a strong brand and from a reliable and world class IaaS platform at competitive prices, incl. highest security and data privacy

- **Reselling & Enterprise Marketplace**
  - For selected ISVs / exclusive for ISVs on our infrastructure
  - In addition to world class IaaS, the ISVs get access to the T-Systems customer base via the Enterprise Marketplace

- **Solution Selling**
  - For Focus ISVs (vertical & horizontal)
  - ISVs can create and establish a strategic partnership with world class IaaS provider and get access to unparalleled large enterprise customer base
ISV Cloud Infrastructure & Enterprise Marketplace.
Our offering and its convincing advantages in a nutshell.

T-Systems offers ISVs world class IaaS (secure, scalable, pay-per-use,...) to run their SaaS solutions

Based on IaaS, the ISV gets access to the Enterprise Marketplace, thus access to our huge customer base

Win-Win situation for ISV & customers

ISV
- Exclusive access to T-Systems’ customer base
- Benefit from T-Systems’ strong brand name
- Benefit from T-Systems’ experience in SI and Cloud
- Secure & scalable infrastructure on demand (pay-per-use)
- Potential access to DTAG’s partner sales (Reselling)

Customers
- Simplicity in distribution and management of services
- Less complexity in billing, implementation & integration
- Flexible and scalable services on demand (pay-per-use)
- Trustworthy partner with certified processes & service
- Highest security standards (e.g. in data privacy)
ISV PLATFORM

- Different flavors (SOLIDCLOUD, vCloud) and individual solutions.
- Ability to support lifecycle from self-service IaaS, over value add professional managed services to international delivery capabilities.
- Growing number of services to be consumed by developer (e.g. API for SMS/MMS on pay as you go basis, code analyzer, ..)

- Co-sell ability to Deutsche Telekom business marketplace (targeting individual to upper midsize market customer).
SECURITY AS SUCCESS FACTOR - EXAMPLE
VCloud FROM SECURE DATACENTER IN GERMANY & EU

HIGHEST SECURITY LEVEL

- Infrastructure from secure datacenter
- Under German (BDSG) / EU law
- Network separation by different means, secure WAN connectivity
- Internal and external security and quality audits
- Support for security and compliance-audits, Logging and Monitoring
- Different connectivity methods, approved by DTAG GIS
- Encrypted authentication front- and backend GUI and API
- User and credentials integration in your (AD/LDAP/SAML2) environment possible
- vCloud Networking & Security Services to secure individual virtual networks
SOLUTION LIFECYCLE IN THE CLOUD
via Enterprise Marketplace

ENTERPRISE MARKETPLACE AS TOOL FOR OUR CUSTOMERS TO DEFINE AND OPERATE THEIR APPLICATION LANDSCAPES

Preselect solutions via T-Systems Cloud Partnering

Develop solutions on Application Fabric Development (Customer owned apps)

Migrate Public Cloud applications to T-Systems Private Cloud and visa versa

Step 1: Log on to Self-Service Portal and select application
Step 2: Adjust parameters and configure dependencies
Step 3: Execute and deploy into cloud

Step 1: Developer creates application package
Step 2: Ensure cloud principles, quality and security
Step 3: Deploy Application into Applications Store

Step 1: Select target environment (classic or cloud)
Step 2: Create image and upload into image library
Step 3: Deploy image onto T-Systems’ cloud platform

INTEGRATION SERVICES
BROKERAGE SERVICES
ORCHESTRATION SERVICES
MANAGEMENT SERVICES

T-Systems | Cloud Ecosystem | Cloud 2.0 for ISV
January 18, 2014
## CONTENTS

### CLOUD 2.0 FOR ISV

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CLOUD STATUS QUO</td>
</tr>
<tr>
<td>2</td>
<td>2.0 TOPIC CLOUD</td>
</tr>
<tr>
<td>3</td>
<td>T-SYSTEMS &amp; ISV</td>
</tr>
<tr>
<td>4</td>
<td>LESSONS LEARNED</td>
</tr>
<tr>
<td>5</td>
<td>SUMMARY</td>
</tr>
</tbody>
</table>
THE CLOUD PROMISE
AGILE AND COST EFFECTIVE

RESOURCES AND SERVICES IN LINE WITH DEMAND

Flexible services meet your actual demand.
THE NEED FOR ABSTRACTION IN AUTOMATION
A HISTORIC EXAMPLE: ABSTRACTION IN PROGRAMMING

CPU – MICRO-OPERATIONS

OPERATIONS IN HARDWARE

CPE

Billions

Millions

100.000’s

1.000’s

CPU – MICRO-OPERATIONS

Objects & their Relations

Define

Formal Language 1

e.g. C

Compile

Formal Language 2

e.g. Assembler

Compile

DEVELOPMENT FRAMEWORKS

.net, vfabric / cloudfoundry, Visual Studio

Compile

THE NEED FOR ABSTRACTION IN AUTOMATION
A HISTORIC EXAMPLE: ABSTRACTION IN PROGRAMMING
RESULT OF LESSONS LEARNED

- Cloud is more than an application on a IaaS resource.
- Today, we discuss the “cloud readiness” of application with an ISV
  - Esp. Architectural & automation design
  - It’s a must, for those ISV targeting reselling / solution selling
  - A roadmap / modernization LoI sometimes ad hoc solution

Cloud by NIST

- Selfservice („as you need“)
- Scalable
- Via broadband network
- Big resource pools
- Usage based
- SP800-146 & 800-292

Cloud in detail

- Process based
- High automation
- Virtualized
- IaaS/PaaS/SaaS/BPaaS layer architecture
- Scales horizontally
- Security proof
ISV MIGRATION TO THE CLOUD
LESSONS LEARNED

TECHNOLOGY

- Just packetized software (vs. cloud enabled/native) fail to meet customer expectation on automation, cost and agility
- Customer demand zero day update, as well as “frozen versions”
- Security (from ISMS to coding practice) often not enterprise grade
- Missing integration API’s to other applications (e.g., Single sign own, share ERP &CRM customer base, ..)

COMMERCIAL

- Appstores are today not the key sales channels
  - clear future potential
  - Portfolio of marketplaces saturates in the next 12-18 month
- Licensing of underlying components and application must meet cloud standards
- GTM approach must be clear (location, segment, ..)
- Startup’s have high potential, but often unaware of enterprise processes and market

**Non-cloud indicator:**
- Question for max. RAM/CPU per instance
- Comparison to classic (root server) hosting prices
CONTENTS
CLOUD 2.0 FOR ISV

1 CLOUD STATUS QUO

2 2.0 TOPIC CLOUD

3 T-SYSTEMS & ISV

4 LESSONS LEARNED

5 SUMMARY
CLOUD DEFINES NEW APPLICATION REQUIREMENTS

Cloud 2.0 will be hybrid, multi provider based, more agile and improved in compatibility.

Software applications, that are ready to be virtualized/packetized are maybe lacking cloud features

✓ Ability to make use of IaaS/PaaS API
✓ Ability to scale out (horizontal scale)

Modernization could be a solution.

Business model / GTM must be cloud enabled.

For Partnering, the key is the “partner fit” to form a solution where hosting & channel partner + ISV application define a 1+1=3 USP

THE CHALLENGE

Cloud ready/native apps, rather than packaged software.
QUESTIONS & ANSWERS
CLOUD POWERS YOUR BUSINESS

Ralf Hülsmann, Business Development Manager
Cloud ISV - New Routes to Market

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THANK YOU!
BACKUP
DO NOT RE-INVENT THE WHEEL
NIST DID ALREADY DESIGN NOT ONLY IAAS, PAAS, SAAS

THE CONCEPTUAL REFERENCE MODEL

Cloud Consumer

Cloud Provider

Service Orchestration

Service Layer

SaaS

PaaS

IaaS

Resource Abstraction and Control Layer

Physical Resource Layer

Hardware

Facility

Cloud Service Management

Business Support

Provisioning/Configuration

Portability/Interoperability

Cloud Broker

Service Intermediation

Service Aggregation

Service Arbitrage

Source: NIST SP 500-292: NIST Cloud Computing Reference Architecture
EXPECTED EFFECTS OF A CLOUD EXCHANGE

OPENING A STOCK LIKE EXCHANGE WILL AFFECT THE MARKET

- The prices are likely to decrease, regardless of whether or not the provider addresses this market.
- As the contract goods are standardized, the market volume is expected to grow.
- Major outsourcing will only trade small volatile volumes, with a ~80/20 share being most likely.
- Today, we talk about IaaS – more to come.
WHAT
PARTICIPANTS AT DEUTSCHE BÖRSE CLOUD EXCHANGE

IAAS PRODUCTS VALUE CHAIN

Resource Production → Resource Refinement → Resource Usage

Cloud Provider → Cloud Broker → Cloud Consumer

Deutsche Börse Cloud Exchange

WHICH ROLES DEFINE DEUTSCHE BÖRSE’S MARKET?

- For starters, the DBCE model already comes pretty close to meeting NIST definitions. What’s more, DBCE includes all experience and best practices from the company’s other exchange markets.
- The Cloud Broker Services will offer many flavors of value-add services, and not only mandated trading.
CONNECT PROVIDER AND LARGE CONSUMER

A CLOUD BROKER SERVICE

- Source according to your rules
- Source from customers’ own IT
- Source from main contractors
- Source from Cloud Exchange
- Utilize resources without adding complexity
- Automate deployment to resources and migration away from resources

CLOUD CAPACITY FROM MULTIPLE VENDORS OFFERED ON THE CLOUD EXCHANGE