

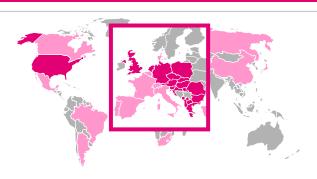
HOLISTIC VIEW ON ENTERPRISE MOBILITY MANAGEMENT.

Hans-Dieter Michel, +49 170 760 85 43, hans-dieter.michel@t-systems.com



DEUTSCHE TELEKOM - PROFILE

CUSTOMERS & MARKETS



CUSTOMERS

- >151 m mobile customers
 Present in 50 countries
- >30 m fixed-network customers/ >17 m broadband customers
- Approx. 6.1 m TV customers
- Some 1.6 m managed workplace systems

MARKETS

- Germany, Europe and the USA: with own infrastructure
- T-Systems: global presence & alliances via partners

FACTS & FIGURES





TELEKOM IN FIGURES, 2014

- Revenue € 62.7 bn
- Adjusted EBITDA € 17.4 bn
- Free cash flow € 4.6 bn
- Among the top 100 worldwide (#105, Fortune500 list)

EMPLOYEES & **RESPONSIBILITY**

- Employees worldwide 228,000
- 8,900 trainees and cooperative degree students in Germany
- Pioneer of social issues (climate protection, data privacy, diversity, etc.)

T-SYSTEMS IS ONE OF THREE DIVISIONS OF DEUTSCHE TELEKOM

T-Systems

T-Systems delivers ICT solutions for major corporations and public-sector organizations worldwide.

Telekom Deutschland

The Telekom subsidiaries provide products and services for the fixed network, mobile communications, IPTV, online and cloud services in Europe.

T-Mobile

T-Mobile offers cell-phone solutions in the Netherlands, Austria, the Czech Republic and the USA.

T-Systems – Global SAP capabilities

- >3.900 SAP resources on a global scale
- Global Delivery Network SI
 (11 countries , strong freelancer network > 400 FL)
- Strong industry expertise in Telco, Auto,
 Public and Health (BaiO Healthcare ~100)
- SAP Global Service Provider
- Several Alliances and Certifications



T-SYSTEMS - DEUTSCHE TELEKOM'S SUBSIDIARY FOR MAJOR CORPORATIONS



8,6 BILLION € REVENUE 0,8 BILLION € EBITDA 47,762 EMPLOYEES

Information technology and telecommunications

services in all industries:

automotive, finance, transport, retail & public sec

Pionier in cloud computing

Corporate customers, multinational corporations & public sector

Financial figures taken from DT's 2014 annual report

May 2015

WHY ARE WE HERE?

AS DEUTSCHE TELEKOM: MOBILITY IS OUR DNA

AS T-SYSTEMS WE COMBINE

AND

TELECOMUNICATIONS KNOW-HOW

0,525€

MOBILITY RULES









Route planner

facebook

Pictures

Dropbox

Flight

amazon

Fitness











timetable







The second secon

room key

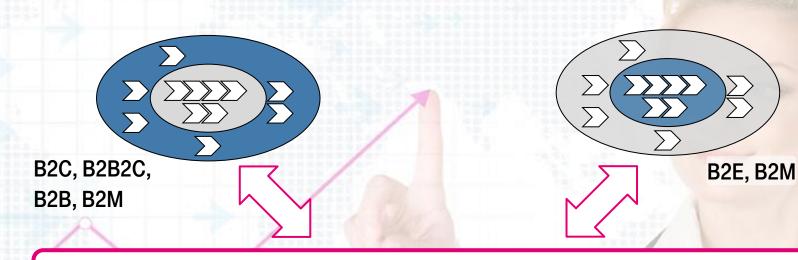
E-mail





Calender

MOBILITY FROM A COMPANY'S POINT OF VIEW



How can I use mobile technologies in an intelligent way to increase productivity and efficiency in my company?

Mobile Productivity

OPTIONS FOR MOBILE PRODUCTIVITY Mobile **Productivity** Optimize and simplify existing business processes establish new business models and processes

B2C: EXAMPLE NEW BUSINESS PROCESSES



B2C/B2BC: VIRTUAL STORE





- Südkorea Seonreung subway station
- 500 most wanted products on wallpaper
- Scanning with special app
- Delivery service, when order is posted before 12 am
- +130% Revenue in Online Sales
- Most popular shopping app in Korea
- >1 Mio Downloads





B2C: VIRAL COUPONING



Coupons directly sent to mobile devices

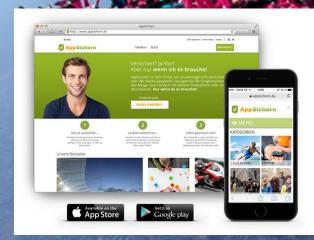
Viral distribution: forwarding increases discount

- Highly used
- Proximity marketing/Geotargeting/push-notification
- Very good service perception
- Very attractive for the customer
- More revenue for the engaged companies
- Individual customer contact
- Munich airport

EXAMPLE INSURANCE MOBILE



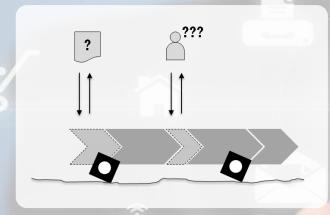
- Short-time insurance for cars, Health, sports, family
- dynamic health insurance (dependend on the country)
- Easy contracting

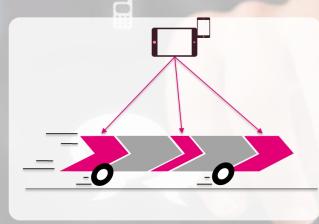


B2E: EXAMPLE SIMPLIFYING EXISTING BUSINESS PROCESSES



MOBILE PRODUCTIVITY B2E?





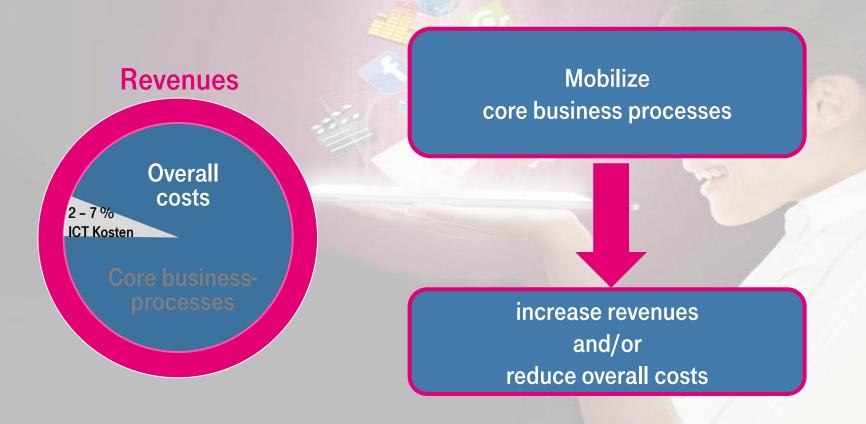
Leverage points

- → Avoid idle times
- Reduce paper based processes
- → Mobilize workflows
- → Enable Collaboration
- Avoid media breaks
- → Enable document access
- → Support knowledge worker



EFFECTS OF MOBILISATION

→ Mobility: investment in ICT/ direct effects in core business



BUSINESS CASE: "MOBILER AUSSENDIENST"WITH SAP SYCLO







- Sensitive hardware
- Complex handling
- Paper-based orders
- Daily report, driver's log not automated
- Separate inventory management





Rugged hardware









Dynamic route optimization



Daily time savings of around 30 MINUTES PER EMPLOYEE

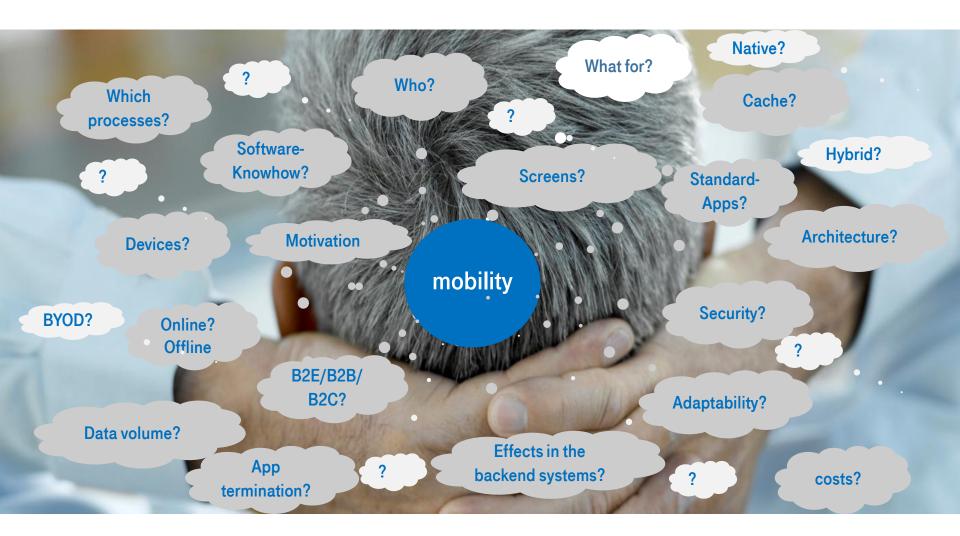
With 2,000 employees, more than 28,000 DAYS per year

Corresponds to an efficiency gain of € 15 MILLION PER YEAR

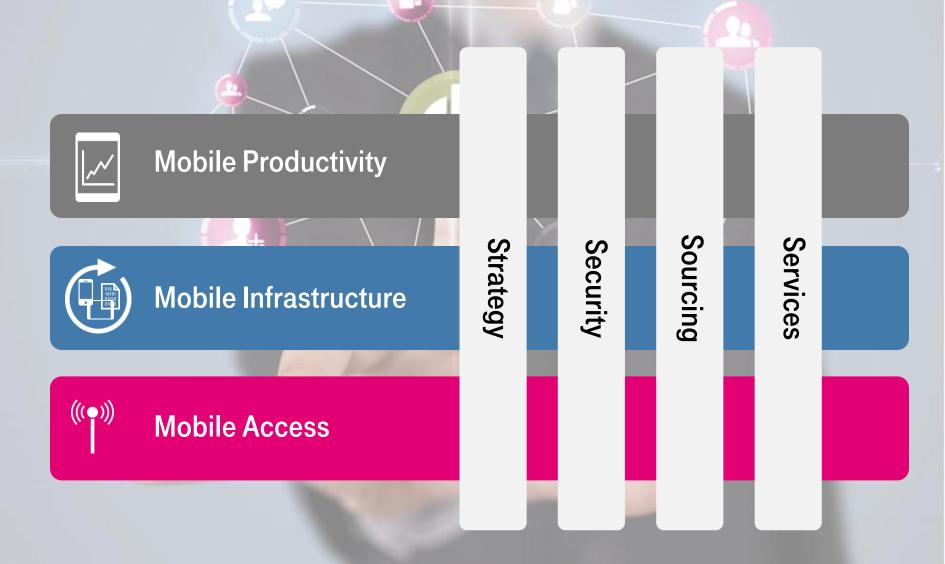


ENTERPRISE MOBILITY

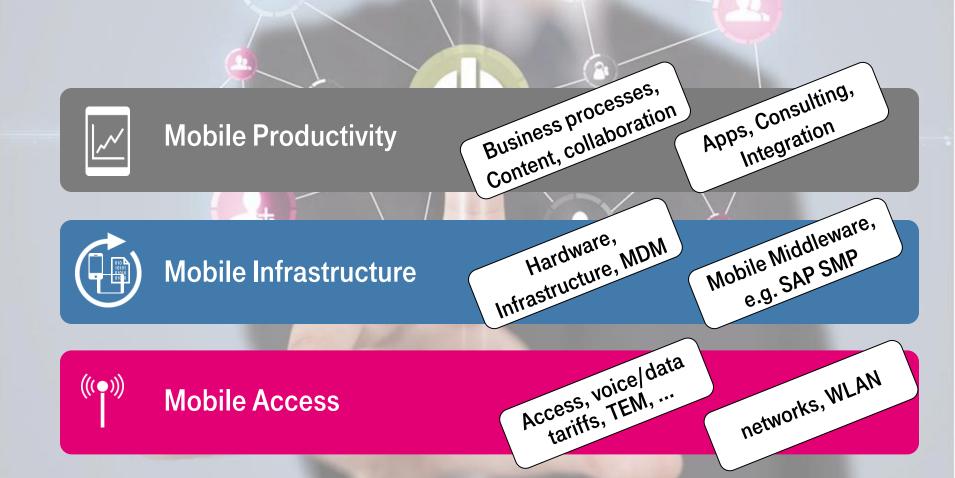
WHAT DO I NEED?



MOBILE ENTERPRISE - COMPONENTS



MOBILE ENTERPRISE - COMPONENTS



THE ROAD TO MOBILE PRODUCTIVITY

Mobile Strategy

- → General conditions
- → influencing IT projects
- → Selection of devices
- **→** OS
- → Use cases/Quick Wins
- → Security concept
- → Governance
- → Strategy
- → Roadmap

Clear scope and clear roadmap!

Mobile Infrastructure

- → Hardware purchasing
- → Device management
- → Middleware
- → Rollout devices, SIMs
- → Enrollment in MDM
- → Policies
- → PIM

Secure and stable infrastrutcure!

Mobile Productivity

- → Apps
- → Appstores
- → Mobile processes
- → Workflows
- → Content
- → Collaboration
- **→**(VR, ...)
- → New Business

Value add with all devices!



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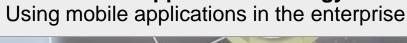
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MOBILE ENTERPRISE CONSULTING



Mobile Application Strategy





Mobile Technology Strategy
Using mobile devices in the enterprise



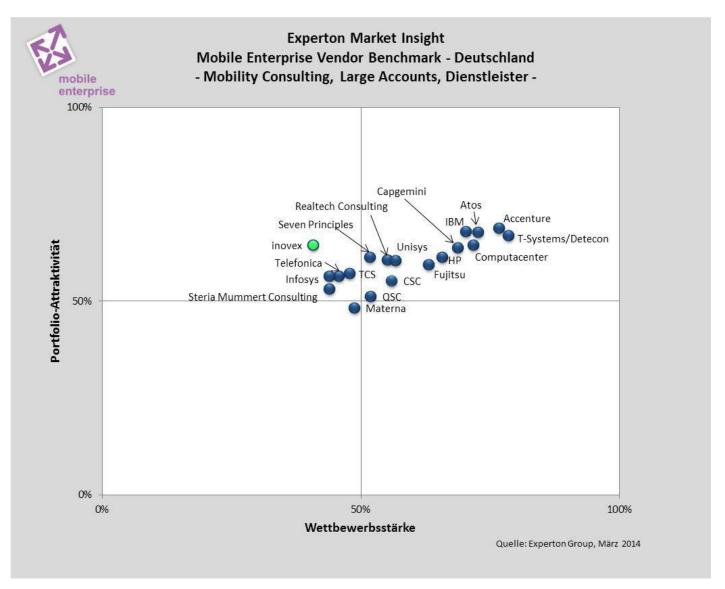
Mobile Device and Application Management
Managing and operationg mobile devices and applications



Mobile Service Operations and Governance
Management- and governance for mobile services



T-SYSTEMS/DETECON: MOBILITY CONSULTING



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MOBILE INFRASTRUCTURE Access infrastructure MDM: Mobile Device Management **MEAP: Mobile Enterprise Application Platform** e.g. SAP Mobile Platform **Application infrastructure Device infrastructure** Applications/

Business Processes

Hardware

DEVICEMANAGEMENT/SECURITY APPROACHES

Special solutions (BOSNET, SimKo, Mobile Encryption App,...)

Device-driven solutions (e.g. Samsung Knox)

App Wrapping/Containerization

MDM + Sandbox

Mobile Device Management (MDM)

Unmanaged Connection

Security level

MOBILE ENCRYPTION APP SECURE VOICE AND DATA ENCRYPTION





Easy to roll out within the company:

- Solution can be rolled out via public App Stores and provisioning links
- App-based, optimized for low threshold installation in large-scale device fleets



Efficient solution:

- Low bandwidth requirement (4.8kbit/s)
- Works with GPRS, EDGE, 3G, WiFi, satellite coverage



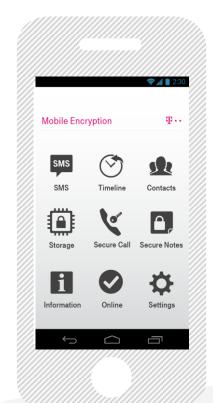
Wide range of smartphones supported:

- Android¹
- iOS²
- Windows Phone³











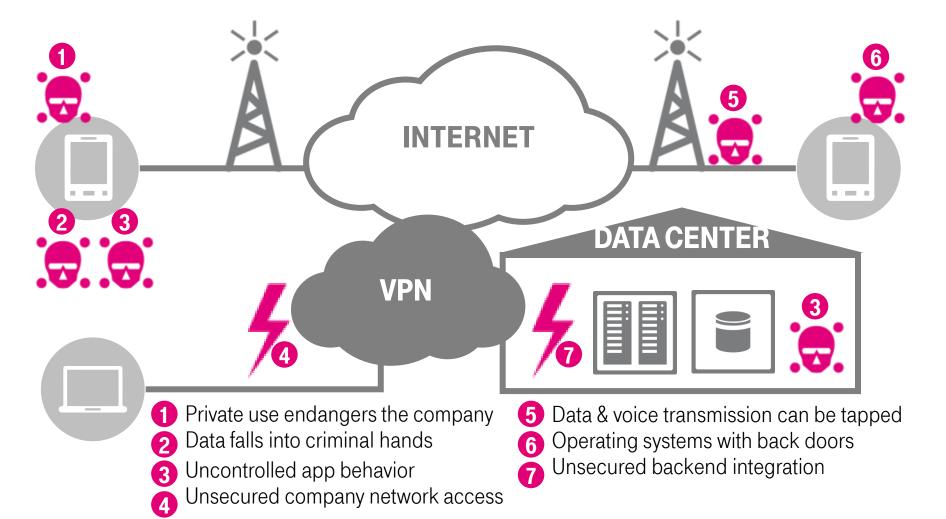
Users must have a relevant mobile service contract with a VoIP provider to use the app.

29

 $^{^{\}rm 1}\,$ Android 4.x $\,$ | $^{\rm 2}\,$ iOS 7 and higher | $^{\rm 3}\,$ Windows Phone 10

MOBILE SECURITY

RISKS ALONG THE ENTIRE MOBILE INFRASTRUCTURE



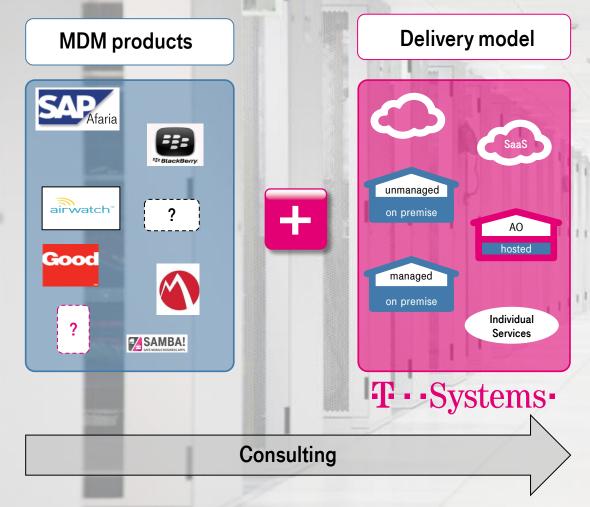
WWW.SICHERHEITSTACHO.EU

hacker attacks on smartphones are fact: see www.sicherheitstacho.eu

ERLEBEN, WAS VERBINDET. STATISTIKEN DOWNLOAD IMPRESSUM DTAG -Übersicht über die aktuellen Cyberangriffe auf DTAG-Sensoren (aufgezeichnet von 180 Sensoren) Quelle Anzahl Vereinigte Staaten 1.201.295 Russische Föderation 1.052.704 952.095 911.652 Deutschland 402.257 Frankreich 321.688 Indonesien 265.072 Zelt Ursprung Ziel Angriff auf 10:39:50 CN Konsole/Shell Kippo.SSH_Connect.Fail 10:39:46 CN GB Konsole/Shell Kippo.SSH Connect.Fail Konsole/Shell Kippo.SSH Connect.Fail Kippo.SSH Connect.Fail 10:39:42 CN GB Konsole/Shell 10:39:40 CN Konsole/Shell Kippo.SSH Connect.Fail 2015-01 2015-03 2014-12 2015-02 2015-04 Trend Analyse 01:30 01:20 00:10 01:50 01:00 00:40 00:30



MOBILE DEVICE MANAGEMENT



YOUR OPTIMAL MDM SOLUTION

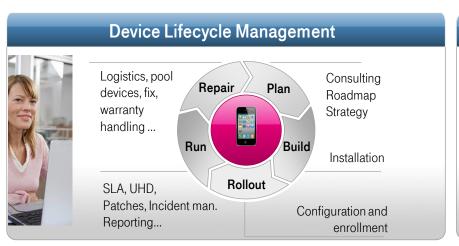
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MOBILE WORKPLACE SERVICES (MOWS). COMPREHENSIVE SERVICES.







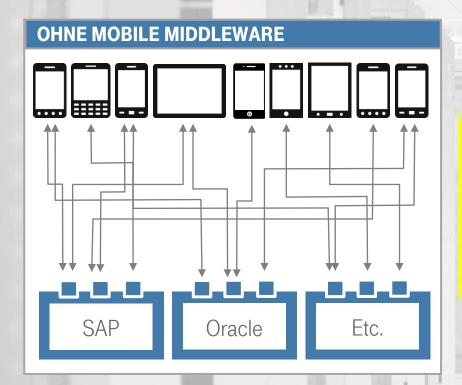




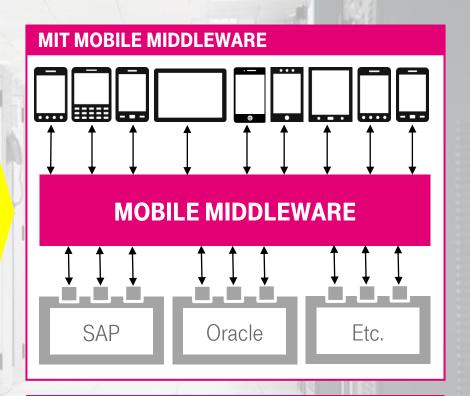




APPLIKATIONSINFRASTRUKTUR



- Exponentiell steigender Wartungs- und Managementaufwand
- Sicherheit schwieriger zu gewährleisten
- Roll-out-Prozesse (z.B. Updates) erschwert



- Sicherstellung von Security Standards
- Klar definierte Schnittstellen
- Online-/Offline-Fähigkeit
- Multi-Plattform-Support

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平.

T-SYSTEMS' APP FACTORY

Global Mobile App Factory ©

Organizational Unit

Standards & Guidelines

- Governance
- Design Guidelines
- Coding Guidelines
- Security Guidelines
- Certification Processes
- Testing framework

Technical Framework

- Mobile enterprise architecture
- Gen. module library
- Code libraries
- Infrastructure & tools
- Developer Platforms

Agile Process Model

- SCRUM
- Efficient approach for min. time-to-market
- Flexibility and feedback on design
- Certified developer

Flexible Delivery Model

- Mixed teams
- onsite/offsite
- offshore/ nearshore
- Large partner network

Full delivery responsibility

Consulting Framework

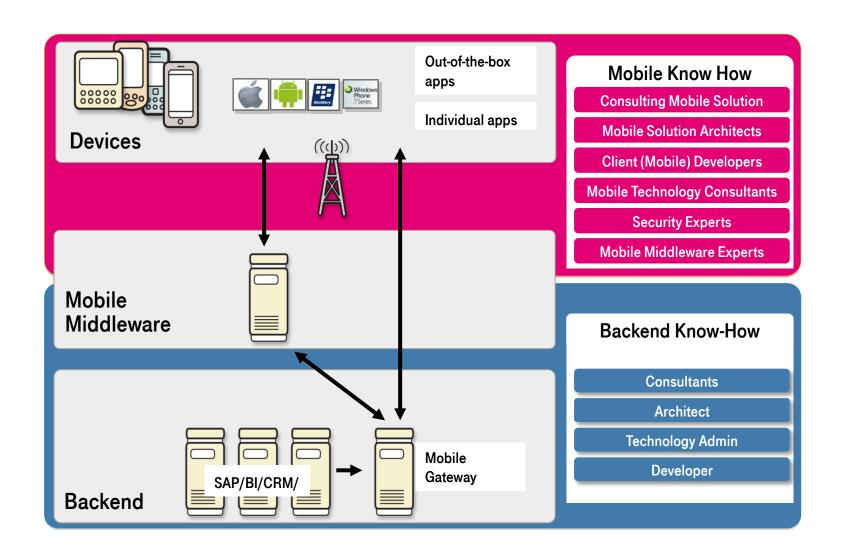


App Factory as consulting offering

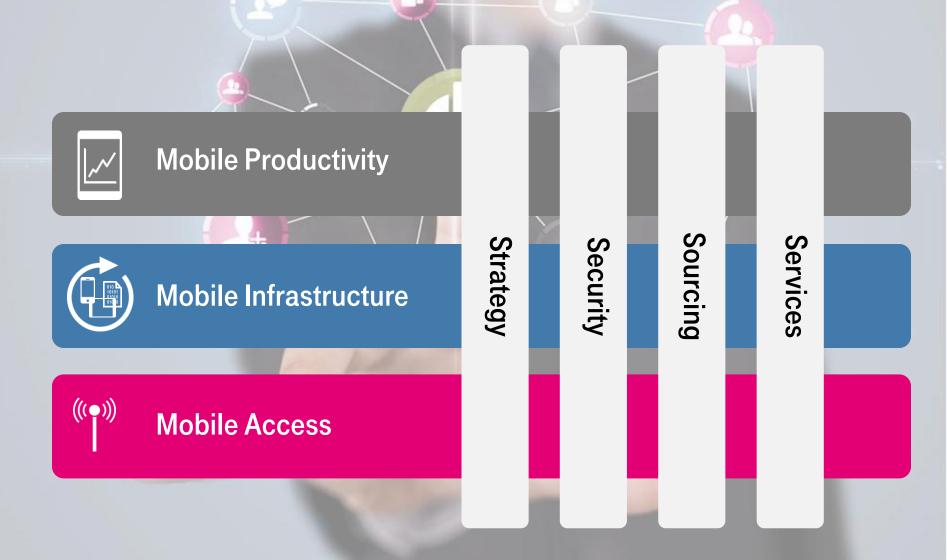
T-SYSTEMS' APP FACTORY MOBILITY SUPPORT FOR THE ENTIRE LIFECYCLE

Global Mobile AppFactory Plan Build Run App Consulting Concepts Customizing Integration Roll-Out **Operations Development** Mobile **Application** Landscape qqA **Use Cases** Product Apps Native Apps Distribution Life Cycle Strategy Setup Mobile Backend Hybrid / Cross App Storybooks Solution Apps Training Technology platform apps integration Operations Mobile Roll-Out Middleware HTML5 Web Middleware Integration **Testing** Architecture Operations Customizing Apps support Code Review Mobile Backend Initiate Device Mobile SDKs Security Customizing Certification Processes Onboarding Management

MOBILE ENTERPRISE: INTEGRATIONS-KNOW-HOW



MOBILE ENTERPRISE - COMPONENTS



THANK YOU!



T-SYSTEMS - DEUTSCHE TELEKOM'S SUBSIDIARY FOR **MAJOR CORPORATIONS**

A GLOBAL PLAYER WITH GLOBAL RESOURCES

INTERNATIONAL **PRESENCE**

OFFICES IN OVER 20 COUNTRIES. **GLOBAL DELIVERY CAPABILITY**

FOCUS

LARGE CORPORATIONS. MULTI-NATIONAL COMPANIES. PUBLIC SECTOR AND **HEALTHCARE ORGANIZATIONS**

MARKET POSITION

- NO. 1 ICT PROVIDER IN **GERMANY**
- SYSTEMS INTEGRATION IN **GFRMANY**
- MANUFACTURING IN NO. 2 FMFA

-public-

REVENUE

€9.5 BILLION*

*2013 FIGURES

EMPLOYEES

APPROX. 50 000 (27 000 IN GERMANY, 23 000 OUTSIDE **GERMANY**)*

*2013 FIGURES

WHY T-SYSTEMS?

References

Vendor Benchmark Experton 110.000 full managed 2 times Leader Mobile Enterprise 2014 devices

M2M platforms accredited

B2B and B2C references

Mobility Test Center

One Stop Shopping

SAP Certified Mobile

Operator Privat Cloud Services

Integration

Security

Made in Germany

Business Consulting

Public Cloud Services

Technologiepartner

















Experton Mobile Enterprise Vendor Benchmark **Mobility Consulting Dienstleister**



Experton Mobile Enterprise Vendor Benchmark Mobile Device Management Dienstleister Enterprise, Deutschland (2014)



