Industrie 4.0 / IoT Vendor Benchmark 2017
Strategy Paper
Germany

An Analysis by
Experton Group AG
an ISG business
Munich, Germany
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Preface

Only nine months lie between the first I4.0/IoT Vendor Benchmark 2016 and the updated 2017 benchmark – it would only be normal to assume that no dramatic changes could be expected within such a short period of time. But far from it: This is a highly dynamic environment, and the IoT platform segment has clearly shown the fast pace of development in this market. Based on the benchmark in Q3/4 2015, we expected the following development: In 2015, only few providers of IoT platforms were present in the German market. Based on what we learned from market participants, many more providers will enter this segment in 2016. By 2017 and 2018, the market will undergo consolidation. It was logical to assume that this consolidation would take place around clusters, i.e., niches characterized by a high degree of complexity (e.g., by industries or by use cases). A look at the results of the current research phase (Q2/Q3 2016) shows that we have to do some rethinking concerning the development forecast described above. Contrary to our expectations, not many providers have entered the IoT platform segment and the overall number of market participants has even decreased. What has happened? The provider landscape has consolidated much more quickly than could be expected – many providers, mostly system integrators, have left this market segment rather quickly, others have not got entered at all, although they had plans to do so less than a year ago. Moreover, the market for IoT platforms does not “cluster” around industries or use cases, as expected. Rather, large providers want to act as “one-stop shopping” providers with the clear goal to cover all industries and all use cases. For this purpose, leading IoT platform providers cooperate with each other, also because today, no provider is able to act as single source and cover all requirements. Currently, networks of IoT platforms are evolving, where every provider is trying to find his place. Experton Group is convinced that the large IoT ecosystems of the future will evolve from these incubators.
Deutsche Telekom’s Multi-IoT Service Platform (MISP) is a prime example for this evolution towards close cooperation with strong partners around complementary IoT platforms. The great benefit for Deutsche Telekom clients is obvious: Customers are provided with solutions to address their IoT requirements by one single provider and from highly secure local data centers, for cloud computing is the technological foundation for delivering these IoT platforms.

Kassel, January 2017
Frank Schmeiler
Research Director
Deutsche Telekom’s Overall Position within the
Industrie 4.0/IoT Benchmark 2017

Within the second edition of the I4.0/IoT Vendor Benchmark, Deutsche Telekom was evaluated in the following six categories:

- IoT Platforms
- iPaaS for IoT
- Industrial Big Data Analytics
- IoT Starter Kits
- IoT Connected Car
- IoT Logistics

According to Experton Group, Deutsche Telekom has a very broad I4.0 & IoT portfolio; the provider has been positioned as a leader in all of the six market categories. Like no other, Deutsche Telekom is able to act as single vendor that addresses all types of IoT requirements.

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<tr>
<th>Deutsche Telekom in the Industrie 4.0/ IoT Vendor Benchmark 2017</th>
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<td><strong>Market segment</strong></td>
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<td>IoT Platforms</td>
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<td>iPaaS for IoT</td>
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Strategic Background:

Deutsche Telekom’s Position in the I4.0 / IoT Vendor Benchmark 2017

Cloud computing is the technical foundation of the Internet of Things. Deutsche Telekom’s excellent results within last year’s Cloud Vendor Benchmark (positioned as leader in all of the eleven benchmark categories) are proof of Deutsche Telekom’s comprehensive capabilities to address their customers’ requirements. These results can also be applied to the IoT market.

<table>
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<tr>
<th>Deutsche Telekom in the Cloud Vendor Benchmark 2016</th>
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<td><strong>Market segment</strong></td>
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<td>Cloud Transformation – Consulting &amp; Integration</td>
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<td>SaaS – Enterprise Cloud Filesharing</td>
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<td>SaaS - Unified Communication as a Service (UC(C)aaS) – UC-Technologies from Partners</td>
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<td>SaaS – Cloud Workplaces (XaaS)</td>
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<td>SaaS – Big Data Services (for Analysis/Data Warehouse)</td>
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<td>IaaS – (Self Service) Public Cloud</td>
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Deutsche Telekom’s strong position in market segments that relate to infrastructure as a service (IaaS) has a high relevance for IoT. Due to their strong local network and IT infrastructure, Deutsche Telekom can provide all required components for high-performance IoT solutions in Germany. Data storage is also a highly relevant topic for IoT environments, where Deutsche Telekom can leverage their traditional strengths – when it comes to security, trust and scalability, delivered out of local data centers, there is practically no getting around Deutsche Telekom, which shows that Deutsche Telekom’s cloud competencies are a real USP and competitive advantage within the IoT segment.
**Strengths within the Individual Market Categories**

**IoT Platforms**

- Deutsche Telekom’s Multi-IoT Service Platform pursues a great vision. Based on the best-of-breed approach, the customer may access multiple IoT platforms by partner companies, depending on the individual business requirement (use case), while being provided a modular one-stop-shopping (end-to-end, E2E) approach.

- Cooperation with platform partners allows Deutsche Telekom to access these partners’ developer ecosystem and leverage their know-how of analyzing data for multiple sources.

- Deutsche Telekom’s functional strengths within this multi-IoT platform approach include connectivity and data management (scalability, performance, security, analytics, machine learning) and their comprehensive consulting and system integration portfolio.

- Deutsche Telekom has many renowned customer references in the German market for their IoT platform.

**iPaaS for IoT**

- Based on their technology partnership with Informatica and their own IoT platform, Deutsche Telekom can offer a high-quality one-stop-shopping IoT and iPaaS solution.

- We expect a growth path, for customers can start with simple IoT use cases on the provider’s proprietary IoT platform and leverage iPaaS to master the complexity resulting from increased connectedness with other applications.

- Deutsche Telekom provides 125 connectors, including CRM (Salesforce, Oracle, Microsoft, SugarCRM), ERP (SAP, Microsoft, Oracle, Netsuite), cloud platforms
(AWS, MS Azure) and analytics & visualization (Hadoop, SAP HANA, Tableau, MongoDB, IBM DB, Oracle DB).

- The clear IoT focus, the local cloud delivery strength, good customer access, sales and support capabilities are a good basis for expanding the IoT business.

**Industrial Big Data Analytics**

- During the last twelve months, Deutsche Telekom has demonstrated considerable growth within this segment.
- The company has numerous references and practical use cases to help customers develop their own use cases accordingly.
- Based on the structure of the whole company group, Deutsche Telekom provides an extraordinarily comprehensive offering from one single vendor.

**IoT Starter Kits**

- The package for the easy entry into the Internet of Things consists of a gateway, standard sensors (GPS data, acceleration/shock, temperature and humidity), SIM card with data tariff and access to Deutsche Telekom’s “Cloud of Things”.
- Based on mobile M2M connectivity, tracking and condition monitoring, use cases can also be implemented for vehicles, transported goods and other mobile devices (a real USP within the context of this benchmark).
- Deutsche Telekom covers the whole value chain, from hardware starter kit and M2M connectivity to the IoT back-end in the cloud, including related consulting offerings.

**Advisor Statement**

“Deutsche Telekom was able to prove their industrial big data analytics competence with numerous pilot and reference projects and to strengthen their position accordingly.”

“Due to mobile connectivity options, Deutsche Telekom’s Cloud of Things Starter Kit is the only IoT starter kit that has been designed for mobile applications.”
IoT Consulting & Integration: Connected Car

- Deutsche Telekom provides consulting and integration services, based on a very broad, modular portfolio. Deutsche Telekom's IT development and digitization initiatives are based on very close connections to the three large OEMs and their supplier networks.

- Deutsche Telekom has strong references, including direct connected car installations, OEMs in Germany and the Federal Ministry of Transportation.

Advisor Statement

"Deutsche Telekom has a broad integration and consulting offering and has close connections to the German OEMs, also within the context of innovation initiatives."

IoT Consulting & Integration: Logistics

- Deutsche Telekom has a very comprehensive portfolio, from connectivity solutions to fleet management, container management, track & trace solutions and even a complete solution for the automated shipping of suitcases for end customers.

- The German provider has very good references, which are prepared accordingly to be marketed as show cases.

- Deutsche Telekom addresses customers, from the midmarket segment to international corporations, and enjoys a very high degree of awareness.

Advisor Statement

"Deutsche Telekom has a very comprehensive portfolio, from connectivity solutions to fleet management, container management, track & trace solutions and even a complete solution for the automated shipping of suitcases for end customers."
Enclosure:

Experton Group Industrie 4.0/IoT Vendor Benchmark 2017

For the second time in a row, Experton Group has analyzed the German I4.0 / IoT market, divided into ten categories. The results gained on relevant providers were published within a comprehensive study, including key trends and respective Market Insight quadrants for the individual categories. The I4.0/IoT Vendor Benchmark is the result of intensive market observation, which helps us to compare user requirements with comprehensive vendor portfolios, which are analyzed and evaluated accordingly. These analyses are based on the "Experton Group Market Insight" methodology developed by Experton Group. This validated and internationally acknowledged methodology serves as basis for the evaluation and positioning of the individual vendors. The charts for the individual quadrants contain the output of our analysis with respect to the portfolio attractiveness and the competitive strength of the benchmarked vendors. Each category is divided into subcategories. For each vendor, a detailed scoring based on 10 key and additional secondary criteria is provided for each product category. Altogether, about 100 items are analyzed. These criteria are weighted, based on the respective product category, resulting in an assessment of the individual offering’s attractiveness (“portfolio attractiveness”) and the strength of the individual provider (“competitive strength”).
Quadrants

[Image of Quadrant charts showing various vendors in different categories based on portfolio attractiveness and competitive strength.]
Industrie 4.0/ IoT Vendor Benchmark 2017

Experton Market Insight
Industrie 4.0/IoT Vendor Benchmark 2017 - Germany
IoT Starter Kits

Product Challenger  
Portfolio attractiveness

Leader

0 %  
50 %  
100 %

0 %  
50 %  
100 %

Follower
Market Challenger

Competitive strength

Experton Market Insight
Industrie 4.0/IoT Vendor Benchmark 2017 – Germany
Industrial Big Data Analytics

Product Challenger  
Portfolio attractiveness

Leader

0 %  
50 %  
100 %

0 %  
50 %  
100 %

Follower
Market Challenger

Competitive strength
Experton Market Insight
Industrie 4.0/IoT Vendor Benchmark 2017 - Germany
Consulting and Integration/IoT Logistics

Experton Market Insight
Industrie 4.0/IoT Vendor Benchmark 2017 - Germany
Consulting and Integration/Connected Cars
About Deutsche Telekom

Deutsche Telekom is one of the world's leading integrated telecommunications companies. The group provides fixed-network/broadband, mobile communications, Internet, and IPTV products and services for consumers, and information and communication technology (ICT) solutions for business and corporate customers. Deutsche Telekom is present in more than 50 countries and has about 218,300 employees worldwide. In business year 2016, the company generated revenues of 73.1 billion EUR, about 66.3 percent of it outside Germany. For Deutsche Telekom, the business customer segment in Europe is a strategic area of growth. Together with T-Systems, Deutsche Telekom’s daughter company for the large accounts segment, Deutsche Telekom provides small and medium businesses as well as multinational corporations ICT solutions for an increasingly complex digital world. The core offering comprises cloud-based services, M2M and security solutions, complementary mobile and fixed-line communications products, solutions for virtual collaboration and IT platforms, which serve as basis for customers’ digital business models.
About T-Systems

With a footprint in more than 20 countries and external revenues of 6.5 billion EUR (2016), T-Systems is one of the global information and communications technology (ICT) leaders. T-Systems offers a range of integrated solutions for business customers, including the secure operations of legacy systems and traditional ICT services, the transformation to cloud-based services (including tailored infrastructure, platforms and software) as well as new business models and innovation projects for the business fields of the future, such as data analytics, the Internet of Things, machine-to-machine (M2M) communications and Industrie 4.0. These offerings are based on the provider’s global reach in fixed-network and mobile communications, its highly secure data centers, a comprehensive cloud ecosystem built around standardized platforms and global partnerships, and the ability to ensure highest levels of security.

IoT and cloud are strategic growth topics of Deutsche Telekom and since January 2015, they have been bundled in T-Systems’ Digital Division. A team of around 1,200 experts supports companies to help them implement their digitization strategies and develops highly scalable, platform-based and standardized IoT/M2M and Industrie 4.0 products and data analytics solutions. This unit also provides industry-specific connected-car and e-health solutions.
About Experton Group

Experton Group is the leading fully integrated research, advisory and consulting company. Experton Group supports large enterprises as well as midmarket businesses with their IT strategic planning and implementation through innovative, neutral and independent consulting and advisory services to help them maximize the business value of their ICT investments.

Experton Group provides market research, advisory services, assessments, benchmarks, conferences, seminars and publications on information and communications technology topics. The scope of services includes technology, business processes, management and M&A.

Experton Group was founded in 2005 by very experienced market research and consulting experts; in March 2016, Experton Group became a subsidiary of Information Services Group.

More information on our research can be found under:

http://experton-group.de
http://blog.experton-group.de
https://twitter.com/ExpertonGroup