

# IoT Innovations Roadmap

(Er)heben Sie mit SAP Services Ihr digitales Innovationspotential

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# Agenda

- Digitalisierung & IoT- vom “Big Picture” zum konkreten Szenario
- Unser Consulting Ansatz zum Heben Ihres digitalen Potentials

# Das digitale Dreieck: Digitale Transformation entsteht durch Technologie, die Menschen, Dinge und Transaktionen verbindet

Things

## Smart Things & Digital Assets

- Internet of Things & Industry 4.0, Smart Factory
- Thing-to-thing commerce
- Autonomous things
- Things swarms

## Human-Machine Interaction

- Touch, gesture interfaces, next generation UX
- Intelligence augmentation
- Smart devices incl. wearables
- Virtual & augmented reality

## Digital Customer

- Omnichannel & -commerce
- Hyper-connectivity of people, business, communities, sensors
- Web, apps & mobility
- Social networks

People

## Digital to Physical Conversion

- Additive manufacturing incl. 3D printing
- Robotics for automation & services
- Autonomous vehicles incl. drones
- Energy storage and harvesting

## Digital Workforce

- Digitalization and automation of knowledge work
- Social collaboration

## Big Data, Computational Power, Analytics & Intelligence

- Data Management: Big Data / Open Data / In-Memory / S/4HANA simple architecture
- Advanced Analytics & Machine Learning, Cognitive Systems / AI
- Cloud technology
- Super- and quantum computing

## Digital Ecosystem

- Value network collaboration & digital supply chain
- Transactional business networks
- Crowdfunding, -sourcing, -innovation
- E-money & smart contracts (blockchain, bitcoin / virtual currencies)

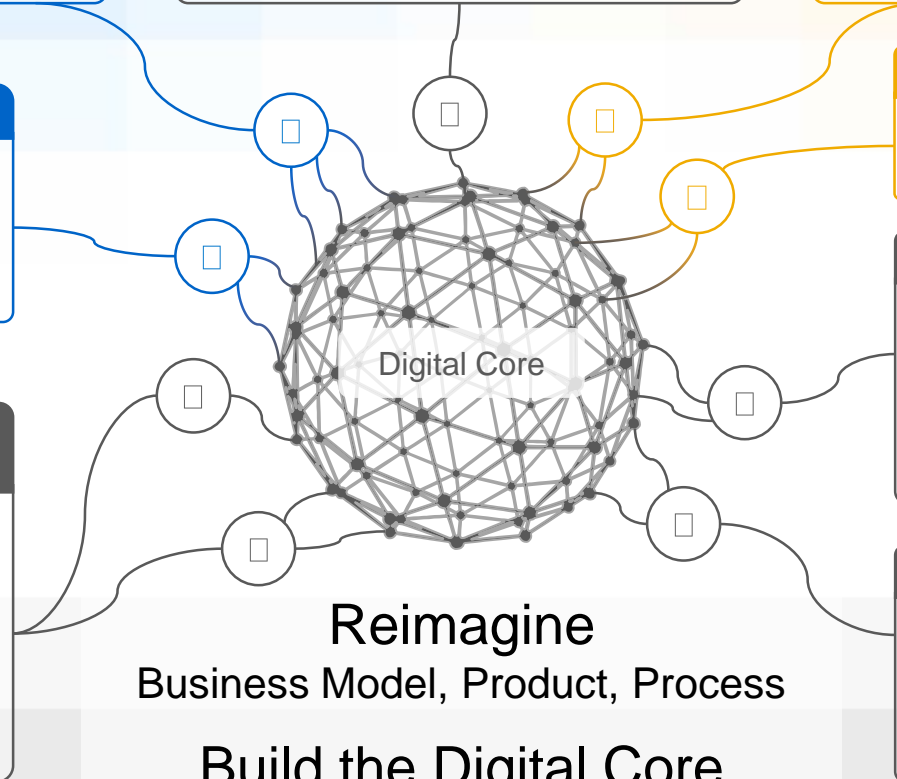
## Cyber-Security

- Protection of IoT DoS/DdoS attacks
- Context-centric privacy & security
- Self-adaptive security mechanisms
- Homomorphic encryption

Digital Core

Reimagine  
Business Model, Product, Process  
Build the Digital Core

Transactions & Processes



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SAP IoT Apps  
(Predictive Maintenance, Vehicle Insights and many more)

SAP HANA Cloud Platform for IoT

SAP HANA VORA  
(Hadoop Integration)

SAP Cloud for Analytics

## Big Data, Computational Power, Analytics & Intelligence

- Data Management: Big Data / Open Data / In-Memory / S/4HANA simple architecture
- Advanced Analytics & Machine Learning, Cognitive Systems / AI
- Cloud technology
- Super- and quantum computing

SAP Fiori 2.0  
reddot award 2015 winner

SAP Hybris (v)  
SAP Cloud for Customer

SAP SuccessFactors  
SAP Jam

SAP Business Networks  
SAP Fieldglass  
SAP Ariba  
CONCUR

SAP Security Solutions  
(Enterprise Threat Detection, CryptoLib and many more)

## Digital Workforce

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- Social collaboration

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**S4 HANA**  
The Digital Core Application Suite  
Powered by SAP HANA Platform

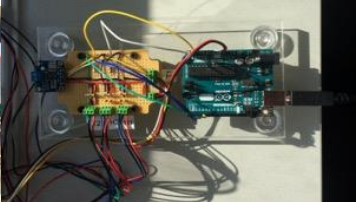
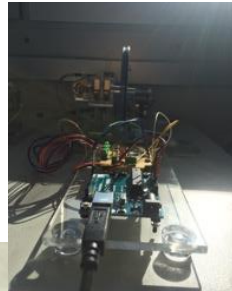
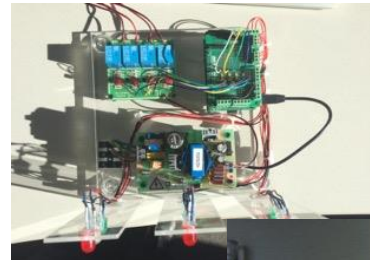
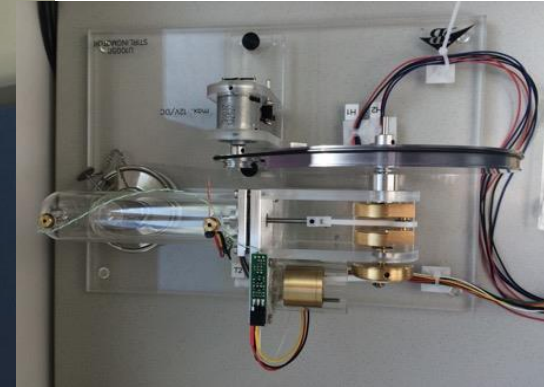
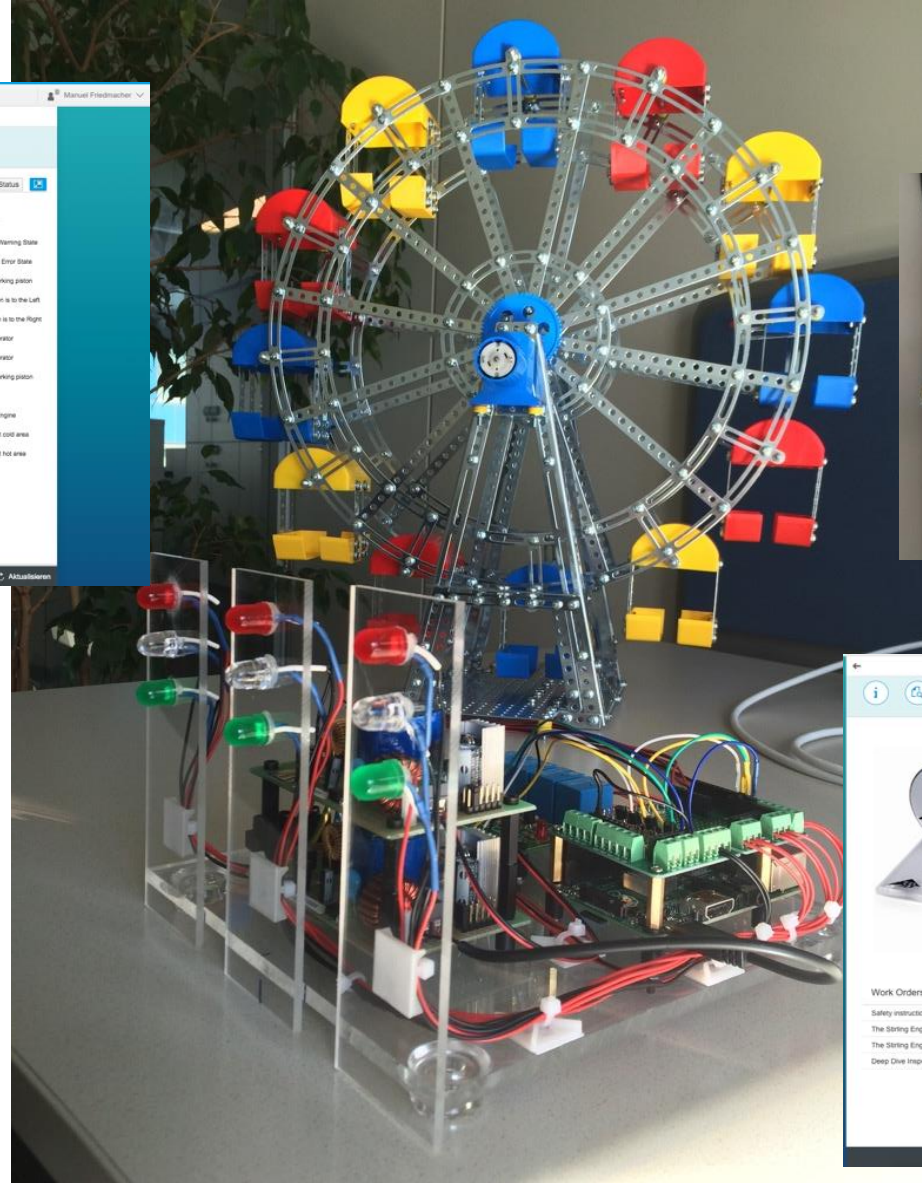
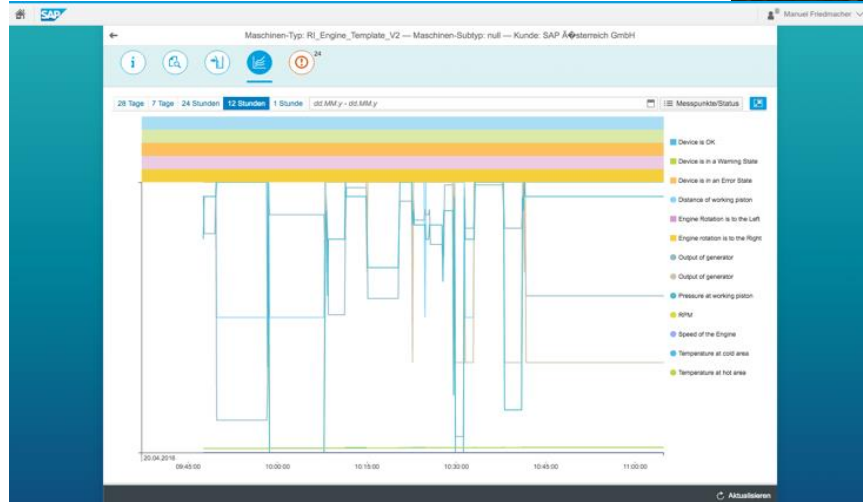
Reimagine

Business Model, Product, Process

Build the Digital Core

Transactions & Processes

# Show case – vom „Big Picture“ zum konkreten Szenario



Machine Type: RI\_Engine\_Template\_V2 — Machine Subtype: null — Customer: Test Customer

1. Flywheel with marking for speed determination.
2. Motor-generator unit with stage pulley.
3. Switch.
4. Bulb.
5. 4-mm safety plugs.
6. Alcohol burner.
7. Temperature measurement connector 1.
8. Displacement piston.
9. Capped hose connection for pressure measurements.
10. Temperature measurement connector 2.
11. Working piston.
12. Threaded rod M3 (connected with the working piston).

Work Orders

Safety instructions for Shut down and Start

The Starting Engine as a heat engine Start - Restart instructions

The Starting Engine as a heat engine Instruction Work Item - Workmanager

Deep Dive Inspection Procedure

Work Order Items

Pour the fuel alcohol carefully into the alcoholburner, making sure that none of it is spilt.

Never fill the alcoholburner as long the wick is still smoldering or another open flame is in close proximity.

Immediately close the fuel container after use.

Keep away from the open flame.

Caution! Only extinguish the flame by filling the cover provided for this purpose.

# Show case - ein einfaches Szenario für IoT: SAP Predictive Maintenance and Service (PdMS)

## Normalbetrieb:

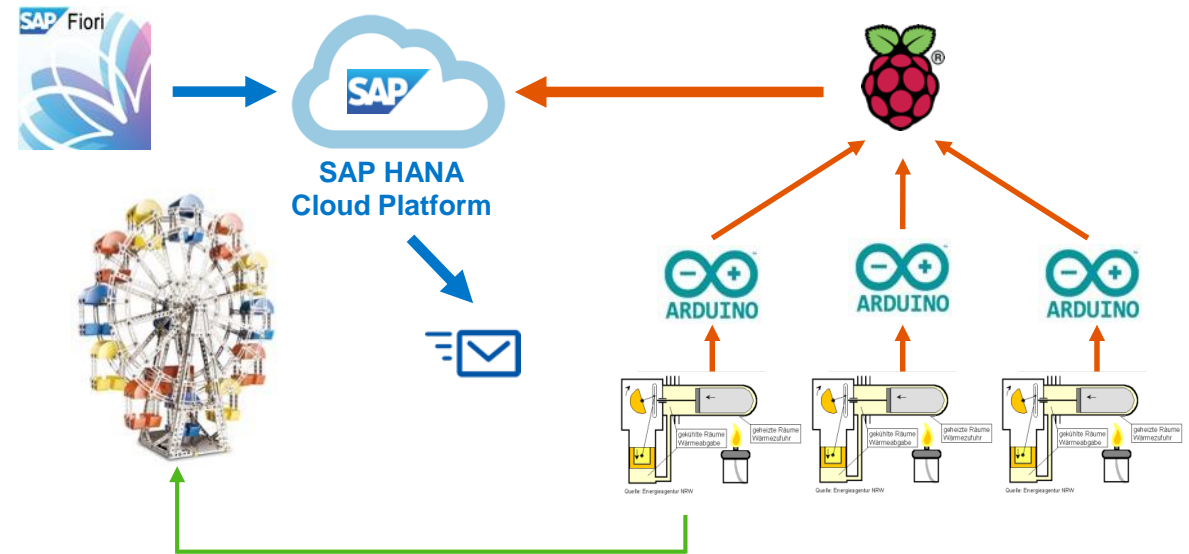
Sensoren am Stirlingmotor liefern Messwerte

- Drehzahl, Drehrichtung, Geschwindigkeit
- Temperatur

Generator am Stirlingmotor erzeugt Strom zum Antrieb des Riesenrades

Messwerte werden in der SAP HANA Cloud Plattform gesammelt und über SAP Predictive Maintenance & Service (PdMS) ausgewertet und überwacht.

Im Fehlerfall wird eine Arbeitsanweisung an einen Techniker geschickt und optisch mittels Lichtsignal auf der Anlage angezeigt.

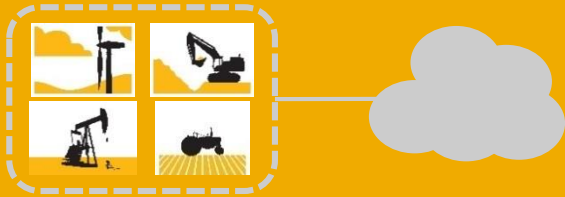


# SAP Predictive Maintenance and Service, cloud edition

Leverage operational insights to drive innovative new business models

SAP Predictive Maintenance and Service ist eine BigData Applikation für die remote Überwachung von Betriebszuständen und Predictive Maintenance – sowohl für kleine Maschinen wie Kaffeemaschinen bis hin zu komplexen und großen Industriemaschinen

## messen



Remotely sense operational data from equipment

Store the data in HANA and historical storage

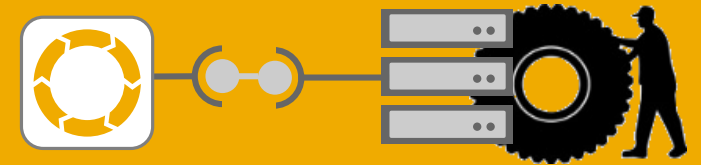
## überwachen, analysieren, vorhersagen



Analyze and monitor equipment data

Correlate with business information to predict future malfunctions

## agieren



Optimize maintenance and service operations

Enable new business models around the equipment



# Agenda

- Digitalisierung & IoT- vom “Big Picture” zum konkreten Szenario
- Unser Consulting Ansatz zum Heben Ihres digitalen Potentials



# Unsere IoT Services adressieren die Schlüsselfragen

## Fragen

1

**Wie digital sind wir? Wie digital wollen wir werden?  
Welche Fähigkeiten benötigen wir, um digital  
erfolgreich zu sein?**

2

**Wie ist der Einfluß der Digitalisierung & IoT auf mein  
Geschäft?  
Was sind die Chancen und Risiken?**

...

*Wie ist unsere IT Zielarchitektur, wie ist die Roadmap  
dorthin?*

*Wie können wir unsere Geschäftsprozesse digitalisieren?*

...

## SAP Plan Services

- Digital Maturity Assessment
- Digital Capability Framework

### Business Impact of Digital & IoT:

- Digital Technologies,
- Digitized Markets, Ecosystems, Co-opetition
- Digital Business Models

- Proof of Concept & Starter Kits
- IoT Architecture Advisory
- IoT Enablement & other

# Projektansatz für die Potentialerhebung von Digital & IoT in 4 Schritten

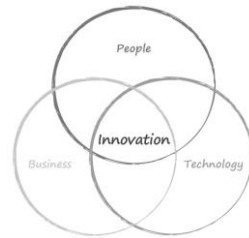
exemplarisch



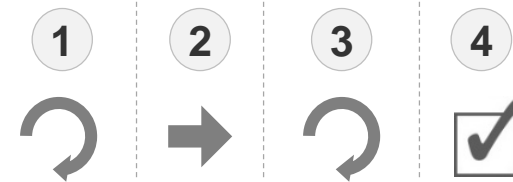
Scope



- Marketsegmente
- Geschäftsmodelle
- Technologie Radar
- Erwartete Benefits



- Design Thinking & Innovationmatrix Toolset
- Relevante Ideen & Konzepte
- Hi-Level Strategy & Roadmap



- Detailkonzept
- Agile delivery: sprints statt Wasserfall
- Quality gates
- Prepackaged Methoden & KPIs
- Massgeschneidert!



- Technical & IT
- Process outsourcing
- Update, upgrade & maintenance (data / models / software)

# SAP bietet IoT Services in 6 Kategorien

In Summe 23 IoT-spezifische und IoT-nahe services

Advise/Plan

Build/Launch

Run/Optimize

*How will IoT impact my business and architecture?  
Which capabilities are required!*

*How do I get my IoT scenario up and running?*

*How can I run and optimize?*

1

**IoT Business Advisory Services**  
(4 Services)

2

**IoT Architecture Advisory Services**  
(1 Service)

3

**Proof of Concept / PoC Services**  
(3 Services)

4

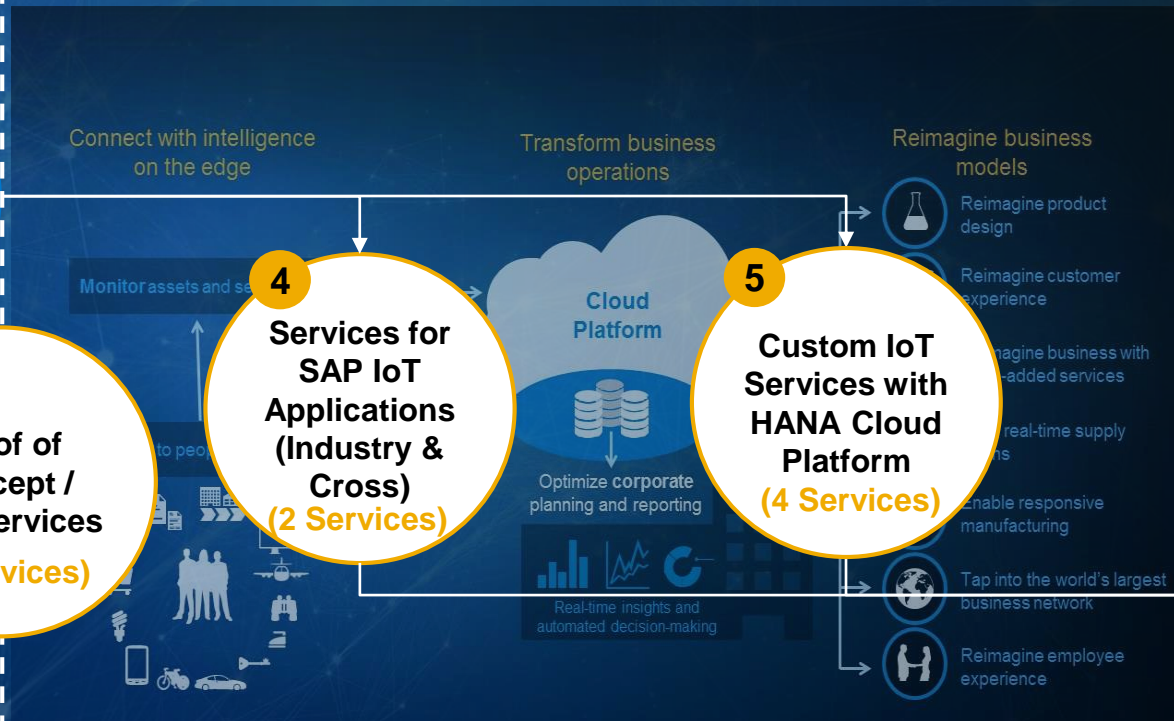
**Services for SAP IoT Applications (Industry & Cross)**  
(2 Services)

5

**Custom IoT Services with HANA Cloud Platform**  
(4 Services)

6

**(4 Services) Application Management and Education**  
(5 Services)



# 1 IoT Business Advisory Services

## (3) Business Assessment for Predictive Maintenance and Service

Beispiel



With the Business Assessment for Predictive Maintenance and Service (PdMS) customers get a detailed **insight** into the SAP solution portfolio in all PdMS areas from a **process** as well as from a **functional** perspective. SAP experts provide advise on business process design including solution mapping. SAP provides an IoT road map for PdMS with recommendations on next steps.

### Business Needs

- Improve maintenance and/or service processes leveraging IoT capabilities
- Get a better understanding about the complexity and critical success factors for a PdMS implementation before actually starting a project
- Need a clear IoT road map on the next steps for a PdMS implementation

### Delivery Approach and Scope

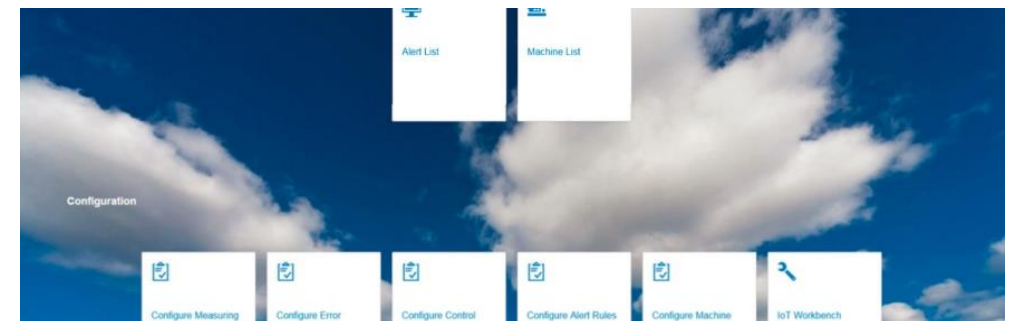
- Analysis of the customer's as-is situation including organizational and operational (process) structure including system landscape readiness
- Provision of a to-be process description and a solution mapping
- IoT road map for PdMS
- Effort estimation and high level business case
- Additional recommendations specific to the individual situation

### Value and Benefits

- Solid plan and understanding of the PdMS implementation aspects including time and effort
- Implementation road map recommendation provided by SAP experts
- Reduced (technical & commercial) risk for a PdMS implementation

Service Price:  
Service No.: 50122678  
Contact:  
References

Duration:





# Thank you!



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# Appendix

## Übersicht über alle SAP Standard IoT Services

# 1 IoT Business Advisory Services

## (1) Business Assessment for the Impact of the Internet of Things and Industry 4.0



With this innovation service, customers can understand the **impact** of the Internet of Things (IoT) and Industry 4.0 on their company, and create an individual **road map** to success. The service enables companies to put the three key drivers of innovation into temporal dynamics in correlation to their impact on the business, and uncovers new Business Models with IoT and Industry 4.0.

### Business Needs

- Have disruptive business models and capabilities to reduce pressure from new digital competitors
- Reduce uncertainty of business model innovation opportunities through IoT and know how to capture them
- Develop Internet of Things competencies in terms of technologies, organization and processes with a clear road map to achievement

### Delivery Approach and Scope

- Scoping and maturity check
- Design Thinking Workshop series to discover and define addressable need segments, products, services with the Innovation Matrix Canvas, 55+7 business model pattern database, and the key technologies radar canvas
- Strategy & road map definition

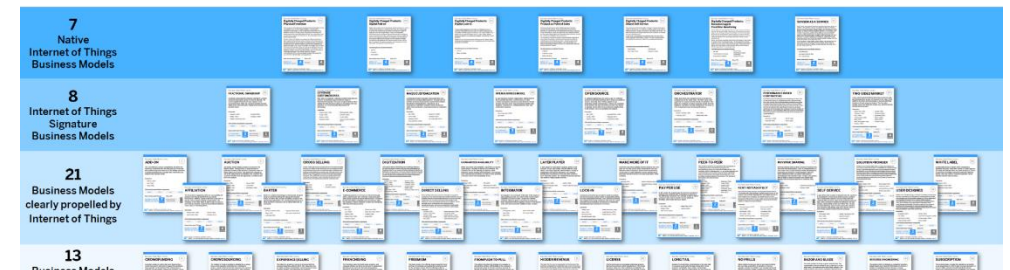
### Value and Benefits

- Defined new addressable market segments, products, services, and business models
- Identified key technologies and key capabilities to be developed
- Defined clear strategy for leveraging the potential of the Internet of Things and road map to success

Service Price:  
Service No.: 50122678  
Contact:  
References

Duration:

SAP BTS 55 + 7 Business Model Patterns: Ranked based on potential value to be derived from Internet of Things



# 1 IoT Business Advisory Services

## (2) Business Assessment for Digital Capabilities for the Internet of Things



With this Internet of Things (IoT) service, customers can create a clear vision of a Digital Enterprise for the IoT, determine key guiding principles that assist in the IoT enterprise transformation journey, and derive their company's **key initiatives** and **priorities** for achieving the desirable To-Be state. The service is a company-specific **IoT readiness assessment** tailoring the company's As-Is situation to the desirable To-Be state.

### Business Needs

- Have the right digital capabilities for the IoT
- Possess a clear picture of the business IoT maturity level
- Add value to the IoT business scenarios
- Have a strategic road map for the IoT

### Delivery Approach and Scope

- IoT Maturity Assessment through a self evaluation
- Envisioning key initiatives and priorities
- Short- to mid term IoT road map definition
- Offered as small and large scope options

### Value and Benefits

- Defined generic picture of how the Digital IoT key capabilities will look like, using the digital capability maturity model
- Identified addressable capabilities to reach IoT readiness maturity level
- Decision making readiness for initial IoT Use Cases and related road map

Service Price:  
Service No.: 50122678  
Contact:  
References

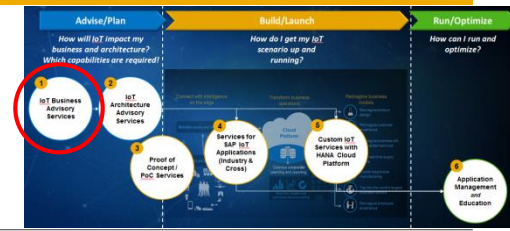
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# 1 IoT Business Advisory Services

## (4) Maturity Assessment IoT- Data Security



SAP – Business Transformation Services (BTS) provides a maturity assessment service to identify the data security issues of an organization when conducting or planning an IoT transformation

### Business Needs

- Plan to start (or has already started) an IoT –transformation/project
- Understand the required capabilities to manage Data Security
- Know where to invest and to focus in security capability building
- Ensure confidentiality, authenticity, and integrity of data sensed and exchanged by 'things'?

### Delivery Approach and Scope

- “Rapid IoT Sec” is an integrated assessment which investigates the major milestones to manage Data Security
- Determine customer’s ability to manage the IoT Security chain
- Identify capability gaps & opportunities for setting improvement objectives and deriving actions based on a heat map
- Serves as baseline to assess improvements over time

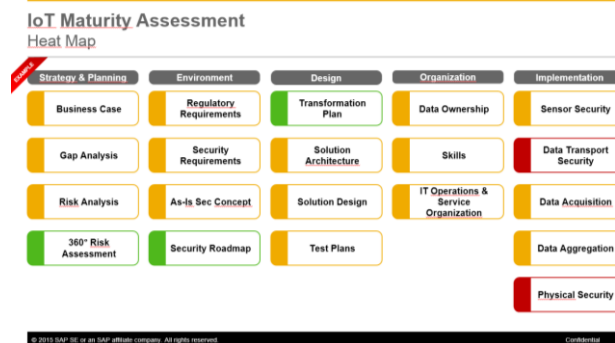
### Value and Benefits

Rapid Diagnostics IoT - Data Security provides insights:

- maturity level of the proposed security architecture
- how to safeguard and meet data security requirements
- how the transformation program meets strategic data security objectives

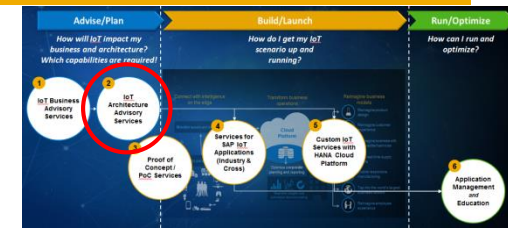
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References

Duration:



# 2 IoT Architecture Advisory Services

## (1) Strategic Advisory Services for Big Data



This service helps companies define Big Data strategies that enable new technologies to capture and manage all available data. The service enables companies to measure performance, provide critical indicators about the business, identify issues, and help market their business in real time. Within a short time frame and fixed price, a company can optimize its investment.

### Business Needs

- Respond to the signals of change from the dynamic global marketplace through data capture and management
- Unlock data to move decision making from sense and respond to predict and act

### Delivery Approach and Scope

- “Capability framework: the Big Data vision for strategy, governance, technology, operations, and people
- Strategy: maturity assessment and prioritized Big Data needs and capabilities
- Transformation map: a high-level plan outlining how to achieve vision

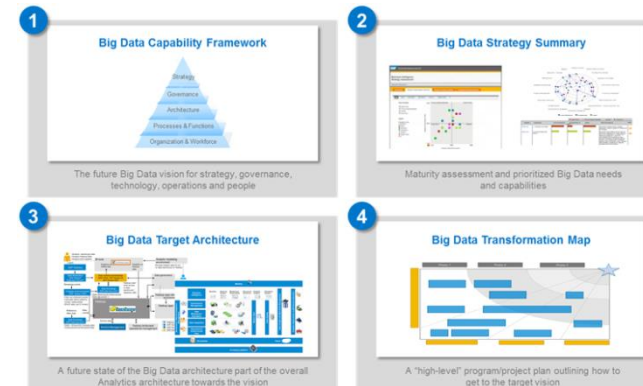
### Value and Benefits

- Big Data deployments and insights to deliver business value
- Secure integrations of emerging technology into existing investments
- A long-term Big Data strategy based on expertise and aligned to a road map from SAP Opportunities and solutions contributing to the company's objectives

Service Price:  
Service No.: 50121863  
Contact:  
References

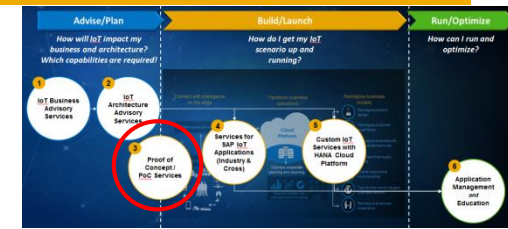
Duration:

[IoT associated service]



# 3 Proof of Concept / PoC Services

## (1) Jump Start Prototyping-Service for SAP Predictive Maintenance & Service



SAP Predictive Maintenance and Service (PdMS) is an Internet-Of-Things application based on the SAP HANA Cloud Platform. With this service, we set up a PdMS instance in the cloud, connect it to real machines or devices of the customer and prototype the SAP solution based on real sensor data. This provides an optimal and re-usable basis for a follow-on project with SAP PdMS, cloud edition.

### Business Needs

- Run Predictive Maintenance und Service processes utilizing the SAP PdMS cloud solution
- Expect a prototype from SAP using and connecting your own machines and devices

### Delivery Approach and Scope

#### Connection:

- Connection of two devices / machines (with up to 50 data measurement points)

#### Application:

- Visualization of measurement points and of alerts and set up of respective threshold values
- Set up of two PdMS reports
- Hosting of the customer specific instance for 8 weeks

#### Integration Add-on:

- Connection to CS/CRM or to PM

#### Prediction Add on:

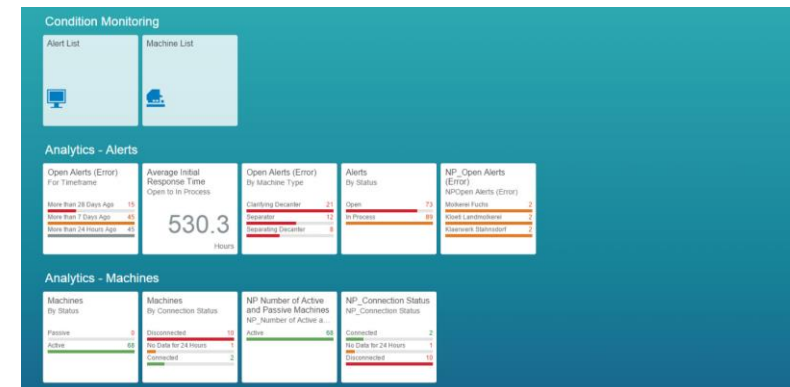
- Detecting Failure Patterns based on the integration of sensor and error data

### Value and Benefits

- Very affordable prototype with your own machine data in the SAP cloud
- Basis for a project decision, reusability for an implementation project

Service Price:  
Service No.: 50121863  
Contact:  
References

Duration:



# 3 Proof of Concept / PoC Services

## (2) Industry 4.0 Starter Kit



A joint development with a SAP hardware partner, the Industry 4.0 Starter Kit focuses on a process which is top priority in many enterprises: Predictive Maintenance. The service enables customers to quickly set up a predefined scenario and use it in a productive mode for 3 months, incl. use of the SAP platform and its integration to perform a monitoring, for a fixed price.

### Business Needs

- Illustrate the possibilities of the IoT and of SAP in a showcase
- Get an understanding of how-to benefit from the IoT in a productive environment

### Delivery Approach and Scope

- Scoping workshop and definition of machines to be integrated
- On-site installation of sensors & IPC
- Integration of 1- 2 prediction algorithms and identification of electricity consumers
- Connection to SAP HANA via GSM/LTE or LAN/WLAN
- Set up SAP PdMS, collection of sensor data and set up of alert structure
- Final Result Presentation

### Value and Benefits

- The starter kits comes in 2 versions:
  - **Option 1** allows the integration of one machine to easily identify the components of energy consumption of this unit. This enables an easy analysis of the state of the machine
  - **Option 2** allows via sensors which are put on the machine a vibration analysis and thus a kind of “health” check / prediction of the machine
- The sensors are connected directly to a certified micro-PC for the preprocessing and aggregation of data. This micro-PC communicates with the SAP IoT platform in an integrated manner wherewith the data gets loaded directly into SAP’s PdMS solution

Service Price:

Duration:

Service No.: 50122678

Contact:

References

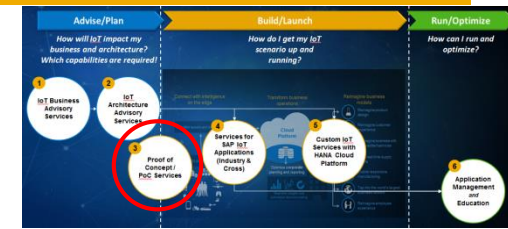
### Components of Industry 4.0 Starter Package?

**Hard + Software Local**

**Hard + Software Cloud**

# 3 Proof of Concept / PoC Services

## (3) Customer-specific PoC Services



SAP offers PoCs for every individual situation of a customer. This service is a generic placeholder for any kind of customer-specific IoT scenario a tailored PoC can be of interest. The specific circumstances and scope will be aligned with the customer situation in an individual manner.

### Business Needs

- Evaluate (industry- or company-) specific IoT scenario(s) of interest for the company
- Get a practical illustration and impression of the capabilities of the respective scenario(s)

### Delivery Approach and Scope

- Scoping workshop(s)
- Project and realization plan
- Effort and pricing indication
- Realization of the individual scenari(s) according to the realization plan

### Value and Benefits

- Concrete prototype at hand with own machine data in the SAP cloud
- Basis for a project decision, reusability for an implementation project

Service Price:

Duration:

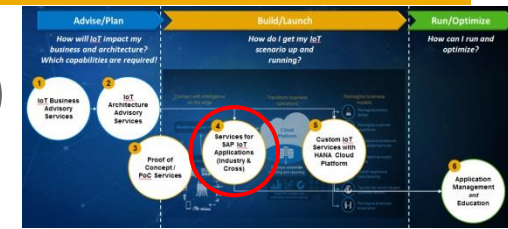
Service No.: 50119741

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References

# 4 Services for SAP IoT Applications (Industry & Cross)

## (1) Rapid Deployment of SAP Connected Manufacturing



The SAP Connected Manufacturing RDS A2O service exemplifies the Industrie 4.0 approach for SAP's Manufacturing Execution suite and enables customers to efficiently implement predefined integrated self organizing production scenarios with reduced cost of ownership and timelines.

### Business Needs

- Real-time "lot size of one" production in high-volume production scenarios for addressing individual customer requirements
- Integration of top floor to the shop floor minimizing disruption incl. machine integration
- Simplify and minimize manual interaction
- Capture source data and prepare data for trends and prediction with SAP HANA capabilities
- Product visualization to ease assembly control

### Delivery Approach and Scope

- "Customer must be live on SAP ERP
- Three Project Types: Blueprint Accelerator, Classic End-to-End RDS for process industries, Classic End-to-End RDS for discrete industries
- Implementation with classic Step-by Step guide for RDS Prepare-Validate Solution- Realize-Deploy

### Value and Benefits

- Reduced total cost of ownership for the customer
- Reduced project implementation timeline & costs
- Built in project implementation accelerators & roadmaps
- Detailed test scripts with test steps & results for Connected Manufacturing RDS Scenario
- Detailed business process descriptions, business process flows & configuration guides

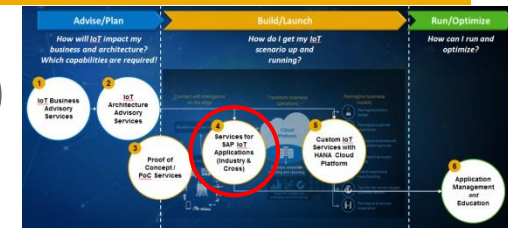
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Contact:  
References

Duration:



# 4 Services for SAP IoT Applications (Industry & Cross)

## (2) Custom Development Services



Analogous to custom-specific PoC Services, Custom Development (CD) Services offered by SAP target the realization of concrete, productive IoT project / scenario for a specific customer. CD Services concern the concrete implementation of an IoT scenario.

### Business Needs

- Realize a concrete IoT implementation project
- Put a defined IoT scenario into practice and realize its (predefined) value for the customer

### Delivery Approach and Scope

- Professional project management led by SAP
- Provision of the necessary subject matter experts for a successful project delivery
- Build of the solution
- Test and deploy of the solution
- (ideally) in scope and in budget
- Quality assurance of solution

### Value and Benefits

- A concrete IoT scenario put into practice
- Expected value realization for the customer executed

Service Price:

Duration:

Service No.: 50119741

Contact:

References



# 5 Custom IoT Services with HANA Cloud Platform

## (1) Rapid Deployment of SAP Fiori Apps



The SAP Fiori apps rapid-deployment solution features prepackaged, instant-value apps across multiple business functions. This package offers a choice to deploy one or many SAP Fiori apps with a predictable price and time with wide variety of optional services to choose from. It allows to deploy any Fiori app delivered by SAP, incl. Fiori apps requiring the SAP HANA platform as a prerequisite

### Business Needs

- Delivering frequently used software functions across multiple device types with a limited budget
- Providing an intuitive, role-based user experience for SAP Business Suite or SAP S/4 HANA
- Lowering total cost of ownership while improving employee productivity

### Delivery Approach and Scope

- New standardized One Service approach for RDS packages
- Multiple scope options for proof-of-concept and productive scenarios
- Highly optimized work breakdown structure utilizing the most effective resources

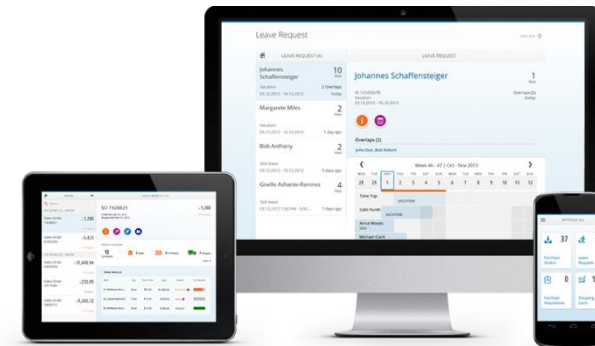
### Value and Benefits

- Increased employee productivity due to accessibility of software functions on multiple devices
- High rate of adoption because of intuitive, role-based user experience with optional integration with SAP Enterprise Portal
- Reduced cost of ownership and increased employee productivity

Service Price:  
Service No.: 50120803  
Contact:  
References

Duration:

[IoT associated service]





# 5 Custom IoT Services with HANA Cloud Platform

## (2) Technical Implementation for SAP HANA



Migrate Data from SAP Business Suite Applications to the SAP HANA Platform This service provides a quick start for the installation and setup of SAP HANA. Effectively launching a new software platform enables smooth data migration from an existing system or database without interrupting business. Starting with installing and configuring one instance of SAP HANA, this service identifies and documents all applicable next steps. With a fixed price and short time frame, a company can migrate existing data with automated processes confidently.

### Business Needs

- Provide real time data analysis or flexibility for analytical data modeling.
- Provide a fixed price and time schedule for the implementation.
- Verify that the SAP HANA Appliance Software has been installed correctly and is ready for usage.

### Delivery Approach and Scope

- Install and configure one SAP HANA Appliance Software so that it is ready-to-run
- Optionally replication can be implemented by using SAP LT or SBOP Data Services
- Optionally Managed System Configuration in Solution Manager can be executed
- Optionally HANA monitoring in Solution Manager can be implemented

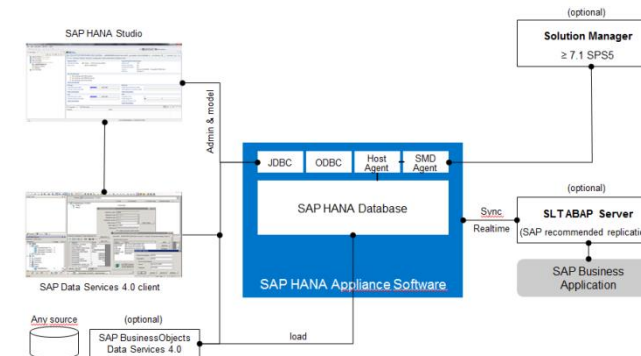
### Value and Benefits

- Minimal risk while converting data from SAP or non-SAP applications to SAP HANA
- Confident data analysis and decision making based on the reliable in-memory capability of SAP HANA
- Fixed price and short time frame for implementation
- Implementation documentation for future independent installations

Service Price:  
 Service No.: 50109152  
 Contact:  
 References

Duration:

[IoT associated service]



# 5 Custom IoT Services with HANA Cloud Platform

## (3) Enablement services for SAP HANA Cloud Platform



Service offering SAP HANA Cloud Service can include **both or either one** of the following offerings:

- **Assessment Service** : To evaluate the benefits and risks of adopting SAP HANA Cloud platform and to prepare and proactively manage non disruptive transition to a cost effective and future-proof solution for building, deploying and managing applications on the cloud
- **Boot Camp Service** : Create a business credible demo app that features how to integrate all aspects of HANA Cloud which can be leveraged and reused for building applications

### Business Needs

- Large capital expenditure in perpetual software licenses and dedicated hardware to run it
- Dedicated IT staff to install and maintain and support software
- Slow innovation cycles from vendors and expensive upgrades for customers

### Value and Benefits

- Assessment Service:
  - Clear understanding of the benefits of adopting a modern cloud application development platform
  - Strategic deployment recommendations for adopting the SAP HANA Cloud Platform
  - Identifying the value proposition of SAP HANA Cloud platform in terms of costs and efficiency
  - SAP HANA Cloud platform implementation roadmap suiting business needs
  - Help making the SAP HANA Cloud implementation project a success
- Boot Camp Service:
  - Enablement Workshop for showcasing the value proposition of SAP HANA Cloud
  - Enables partners/customers IT Consultants to explore platform along with Hands-On experience deploying applications on SAP HANA Cloud
  - Helps to build SAP HANA Cloud development competency within customer/partner organization
  - Helps customer to build SAP HANA Cloud based applications

Service Price:

Service No.: 50117381

Contact:

References

Duration:

[IoT associated service]



# 5 Custom IoT Services with HANA Cloud Platform

## (4) Test Migration to SAP HANA Enterprise Cloud



SAP has introduced a program which offers existing customers on releases in customer specific maintenance a risk-free test migration to the latest technologies in the SAP HANA Enterprise Cloud. The test migration upgrades one respective outdated system into the newest SAP Business Suite release.

### Business Needs

The customer will benefit in 3 areas:

- Business Process Innovation,
- Technological Innovation, and
- Financial Benefit

### Delivery Approach and Scope

- Package is delivered locally via SAP Migration Lead and Migration Consultant (from HEC)

### Value and Benefits

- Workshops assessing as-is situation
- Test Migration is offered within 3 weeks
- Customer has no upfront investment
- Project is risk free (no obligations afterwards)
- Migration is fully managed by SAP
- Shift to HEC frees up internal resources

Service Price:

Duration:

Service No.: 50122218

Contact:

References

[IoT associated service]



# 6 Application Management *and* Education

## (1) Application Management Services for SAP HANA Enterprise Cloud



Application management services for SAP HANA Enterprise Cloud offers a long-term custodial relationship that delivers post-implementation, application support, application enhancement, and application evolution for a customer's SAP HANA Enterprise Cloud environment. SAP and the customer specify the services and duration in a service-level agreement.

### Business Needs

- Roll out new technologies with minimal impact on operations
- Minimize impact of upgrades, new releases and system migrations on the business
- Rely on expert assistance and guidance on innovative solutions

### Delivery Approach and Scope

- Long-term relationship that delivers post-implementation application support, optimization, and improvement for the customer's SAP HANA Enterprise Cloud environment
- Assignment of a project manager to manage the relationship and services delivery
- Use of a ticket tracking system to monitor service requests and help ensure timely response in accordance to with service level agreements

### Value and Benefits

- High availability and optimal performance of cloud solutions to support business processes
- Flattened and optimized operational expenditures
- Flexibility and agility when needed to adjust support in response to business growth

Service Price:

Service No.: 8000930

Contact:

References

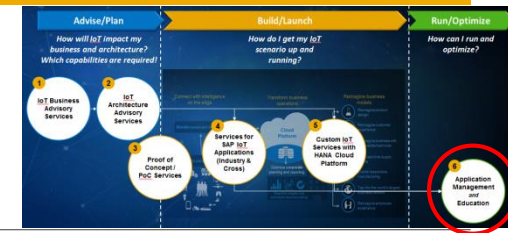
Duration:

[IoT associated service]



# 6 Application Management *and* Education

## (2) Remote Application Operations



This service manages daily technical operations of SAP solutions in a company's data center or a third-party hosting facility. SAP experts connect to a company's SAP software systems via a permanent secure line and support the system with no on-site presence. Monitoring, incident management, and proactive maintenance of the SAP software landscape result in stable, efficient system operations.

### Business Needs

- Reduce time and resources spent on IT operations
- Mitigate risks and speed up IT problem resolution, across time zones
- Keep IT staff focused on value-added core competencies

### Delivery Approach and Scope

- Post implementation support, optimization, and improvement to deliver high availability and performance of business processes
- Monitoring provided via the customer's own SAP Solution Manager application management solution with alert dispatching via e-mail distribution
- SAP-defined service-level agreements (SLAs) for support incidents
- Deliverables such as alert monitoring (when included), monthly system performance reporting, customer-specific how-to guide for system trouble shooting

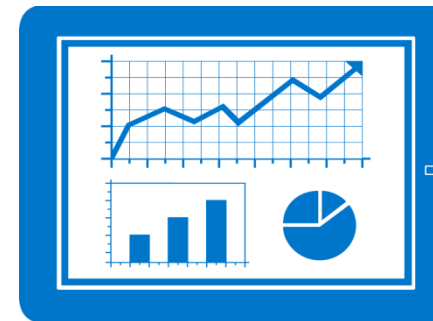
### Value and Benefits

- Lower operational costs and greater financial predictability
- Technical expertise provided by SAP around the clock
- IT staff freed for value-added work
- Stable and efficient SAP software environment

Service Price:  
Service No.: 50109934  
Contact:  
References

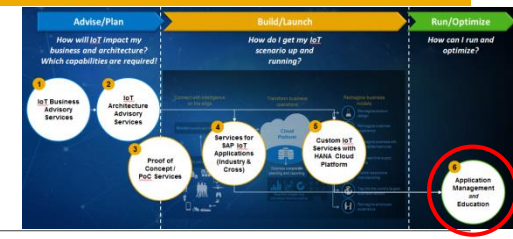
Duration:

[IoT associated service]



# 6 Application Management and Education

## (3) SAP Application Management for SAP Internet of Things Solutions



This service provides company-specific support to manage a holistic SAP application landscape including SAP Internet of Things applications running either on-premise or in the cloud (SaaS or on SAP Hana Cloud Platform). Through a long-term relationship based on a service-level agreement, we deliver post implementation application support, optimization, and improvement for a company 's solution environment

### Business Needs

- Interest in reducing IT Total Cost of Operations of new SAP Internet of Things solutions
- Fully integrated hybrid system landscape (on-premise and cloud solutions)
- Smooth and secure operations of IoT solutions that involve new technologies i.e. Hadoop
- Improve effectiveness of IT support for SAP solutions through the use of multi-year outsourcing engagements

### Delivery Approach and Scope (depending on deployment option)

- The IoT solution is deployed on-premise – standard AMS service offering will apply
- The IoT solution is consumed as SaaS
  - Manage configuration, customer business data, access management
  - E2E monitoring and troubleshooting of interfaces and integration to hybrid landscape
  - Application Lifecycle Management of customer extensions

### Value and Benefits

- Increased focus on end-2-end business processes spanning a hybrid system landscape
- Improved application performance, scalability, and availability
- Less costly downtime
- Flattened and optimized operational expenditures

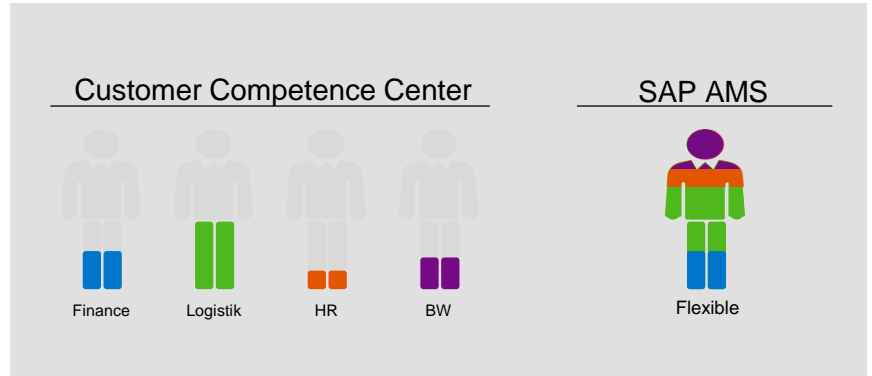
Service Price:                      Duration:

Service No.: 50109933

Contact: [AMS.Solution.Center@sap.com](mailto:AMS.Solution.Center@sap.com)

References

**[IoT associated service]**



# 6 Application Management and Education

## (4) Postproduction Support for Run SAP



This service supports companies in the operations and optimization phase of the Run SAP methodology with guidance on best practices for staffing. Starting with a staffing model or strategy, the service identifies changes needed to support the Run SAP methodology and creates a plan for SAP projects. In a short time, a company can meet its lifecycle plan for the SAP ERP application.

### Business Needs

- Create a sourcing strategy for best-practice support for SAP software projects
- Gain flexibility and scalability with a single support organization and resources on-site, nearshore, or offshore
- Lower TCO for SAP software projects with cost-effective, global support

### Delivery Approach and Scope

- Assessment of a company's structure and overall SAP software footprint
- A full support model in which SAP manages the end-to-end implementation of best practices (methods, tools, and processes) for the Run SAP methodology
- A 9-to-12-month project time frame with SAP providing key team leaders and migration to a ticket-based or shared-pool-of-hours model

### Value and Benefits

- Support from the SAP Active Global Support organization and direct access to the SAP Consulting organization worldwide
- Flexibility and scalability that enable delivery models and staffing of full-time employees and other resources
- Ability to stay within budget while providing expertise across the SAP software landscape

Service Price:  
Service No.: 50109935  
Contact:  
References

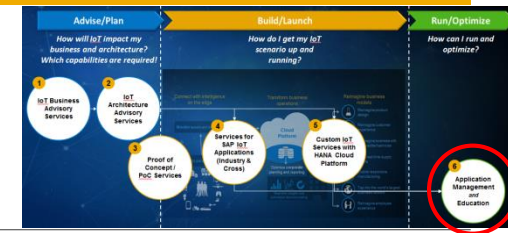
Duration:

[IoT associated service]



# 6 Application Management *and* Education

## (1) Learning Needs Analysis Services



This service enables customers to determine the training content most suitable for different target groups and roles involved in an SAP software implementation project. A series of learning needs analyses identifies and analyzes the training needs of all groups and roles. These analyses form the basis of tailored training programs for each target group.

### Business Needs

- Support project team members with required knowledge of SAP software
- Familiarize key users with future roles
- Provide management with concise business data
- Enable fast and efficient end use of SAP software

### Delivery Approach and Scope

- Identify all users (by group and role) impacted by the project
- Determine all information necessary for training each group
- Provide management data on the business impact of the implementation
- Develop group-specific curricula

### Value and Benefits

- Customer-specific training program tailored to target groups
- Validated assignment of training content to target groups
- Dependable planning data for developing and holding training courses
- Transparency of the level of participation of target groups and associated costs

Service Price:  
Service No.: 50109539  
Contact:  
References

Duration:

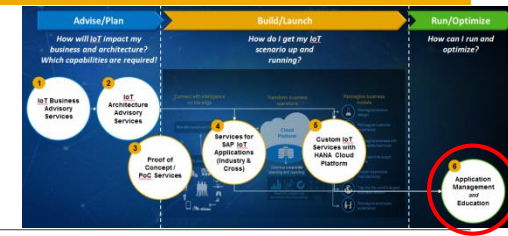
[IoT associated service]





# 6 Application Management and Education

## (2) SAP Learning Hub



SAP Learning Hub is a cloud based solution that provides instant online access to the vast knowledge base from SAP Education with no need to schedule or travel to training. Get fast, easy access to all our latest learning materials for training as and when needed. SAP Learning Hub can be purchased for a single user or many thousands of users - it is the perfect way to build and maintain SAP skills.

### Business Needs

- Make people familiar with new SAP-related topics (such as IoT)
- Keep consulting skills up-to-date, acquire knowledge in innovation areas
- Flexible learning which can be easily adapted to project timelines, no rigid course planning
- Cost-efficient learning, save travel time and travel costs

### Delivery Approach and Scope

- Tailored learning solution for everyone («on-the-job»)
- Flexible preparation of Consultants for certifications
- Less absences from projects, more billable days
- Higher competency and skill level for your projects

### Value and Benefits

- Easy, unlimited access to SAP’s learning content - anytime, anywhere, up to date
- Less learning barriers (no single registrations/approval, no travel costs, no time conflicts) – one registration only resulting in reduced administration effort
- Combination of efficient self-learning with expert led social learning rooms allowing for an exchange with peers and SAP experts
- Keeps the knowledge of your consultants up-to-date

Service Price: Duration:

Service No.: 50109566

50121854

50122905

Contact:

References

[\[IoT associated service\]](#)

Content

Social Learning

Live Access



1:1 SAP training materials, e-learning & delta updates

- find, read, watch, hear, commentate & be informed



expert led learning rooms, webinars & blogs

- listen, compile, discuss, query & interchange



1:1 SAP training systems

- practice, understand, deepen, test & demonstrate

# 6 Application Management and Education

## (3) Classroom Training (Public) - Virtual Licenses



Give your workforce SAP knowledge and skills they need with a full suite of live instructor-led courses at our training centers, with hands-on live experience

### Business Needs

- Ensure first hand knowledge about SAP solutions
- Need for project team trainings with access to live training systems
- Need to stay up-to-date on latest SAP releases and updates
- Ensure SAP expert quality with exercises and certifications

### Delivery Approach and Scope

- Onsite training conducted by experienced SAP trainers
- Practical live exercises
- Printed training materials
- Training delivery in SAP training rooms with lunch
- Certificate of participation for all participants

### Value and Benefits

- Increased project success rate due to better workforce enablement
- The knowledge to achieve full utilization of solution functionality
- Interaction with subject matter experts and co-learners

Service Price:  
Service No.: 50109570  
Contact:  
References

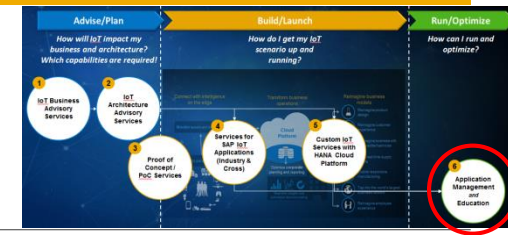
Duration:

[IoT associated service]



# 6 Application Management *and* Education

## (4) Customer Specific Trainings



Demand-oriented and individualized training based on proven high-quality SAP courses and original training materials, but with flexible dates, duration and place.

### Business Needs

- Educate the workforce in very (project-, industry- or customer) specific contents
- Put together an individual training schedule not available in any SAP standard offerings

### Delivery Approach and Scope

- CST content clarification with trainer in advance
- Presentations based on original SAP training materials
- Trainer participation, including preparation time and travel expenses
- SAP training systems landscape usage
- Training delivery in SAP training rooms (with lunch, when at SAP Training Center) or alternatively at customer site
- SAP Certificate of participation for each participant

### Value and Benefits

- Trainings individually adopted to customer needs
- Trainings compatibility with project timeline
- Cost reduction due to lack of travel expenses for participants for on-site training

Service Price:                      Duration:  
Service No.: 50118156, 50118157, 50118158, 50118159,  
5011162, 50118163  
Contact:  
References

[\[IoT associated service \]](#)



# 6 Application Management and Education

## (5) Rapid Deployment of SAP Workforce Performance Builder Content Creation



This service lets companies using SAP applications quickly implement the SAP Workforce Performance Builder Content Creation rapid-deployment solution to create training materials for SAP solutions. Companies can implement the content creation solution in 4 to 11 days with the service. With expedited training companies achieve ROI from SAP software sooner.

### Business Needs

- Provide users with context-sensitive help, accurate process documentation, and e-learning courses for SAP solutions
- Reduce content development and training costs
- Expedite training to speed ROI from SAP solutions

### Delivery Approach and Scope

- Kick off and scoping workshop
- Implementation of SAP Workforce Performance Builder Content Creation RDS
- Key-user training workshop and support for going live.

### Value and Benefits

- Savings from lower content development, training, and help-desk costs, and timely support for change management
- Fast ROI from SAP solutions and reduced implementation costs
- Provide users with context-sensitive help, accurate process documentation, and e-learning courses for SAP solutions
- Reduce content development and training costs
- Expedite training to speed ROI from SAP solutions

Service Price:  
Service No.: 50121262  
Contact:  
References

Duration:

[IoT associated service]

