

ZEVIT



Full digitalization
of OPEX-heavy Service businesses

2017 ZEVIT Field service digitalization White paper

Quick facts: actuality of Field service digitalization

Connected and smart assets are disrupting and transforming the field service business value chain. Accommodating these changes requires establishing new business processes, high performance culture and a new class of enterprise applications that correlate and aggregate data, apply advanced machine learning to perform real-time analysis of data from smart sensors, customers' requests, extraprise data and all available operational and enterprise data across supplier networks, manufacturing and logistics providers. Here are the key take-aways of the paper.

If the challenges are addressed successfully, a high performance culture together with effective IoT applications deliver visible improvements in your field service business

Top 5 challenges of Field service digitalization

- Comprehensive and flexible data platform
- Timely adoption of disruptive business processes
- Effective exploitation of the full potential of data
- Quick tech adoption by field technicians
- Sustainability in continuous adoption of innovations

Top 5 benefits of Field service digitalization

- Operational efficiencies
- Customer engagement satisfaction
- New revenue generation opportunities
- Sustainable and safe growth path
- Competitive advantage in the market

The remainder of the paper dwells on the best practices of full digitalization of OPEX-heavy field service businesses.

Today even agile enterprises must work hard to keep up with the rapid changes of the digital business world. In this race service businesses need to uncover their new competitive advantages through the increased use of "big data", which goes far beyond the conventional enterprise data and includes non-traditional data.

Best practices to overcome top challenges of digitalization

1. Comprehensive and flexible data infrastructure

Field service digitalization solutions available in the market are too many. Those are mainly SAAS, coming from heterogeneous providers, using different programming languages and tools. The need of having one data infrastructure is coming as a key that enables a full harvest of your data potential and its translation to the corresponding stakeholders in the whole business chain. Engineering and managing a state-of-the-art single and comprehensive data platform that is flexible enough to provide an all-in-one solution to connect sensor-based data with operations and people, has become a crucial factor that ensures the service organization's competitiveness.

The goal is Platform as a Service (PaaS): a modern, scale-out architecture leveraging big data, open-source technologies, and data science.

PaaS - the leading IT solution for service digitalization

For a forward-looking company willing to invest in the development of a new generation of enterprise applications, the first requirement is a comprehensive and integrated infrastructure stack. The goal is Platform as a Service (PaaS): a modern, scale-out architecture leveraging big data, open-source technologies, and data science.

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PaaS is all about being serverless, cheaper and faster. The next-generation applications and business processes are utilizing PaaS for the design, development, deployment, and operationalization of the solutions. These integrated applications apply advanced machine learning to recommend actions based on real-time analysis of large scale of data sets, dozens of enterprise and extraprise data sources, and telemetry data from tens of millions of endpoints.

As the next-generation computing platforms emerge, time to market becomes critical. The time-to-market advantage of a proven, scalable architecture can be leveraged to gain early network effects and competitive differentiation in the next big wave of computing and industrial automation.

ZEVIT, therefore, provides a suite of pre-built, cross-industry and highly customizable and extensible applications, developed on Microsoft Azure platform, that facilitate a fast IoT business transformation for organizations in energy, aerospace, automotive, chemical, pharmaceutical, telecommunications and other OPEX-heavy field service businesses.

The pre-built applications are available for predictive maintenance, sensor health, enterprise energy management, capital asset planning, fraud detection, CRM, and supply network optimization. Our customers can also use the platform to build and deploy new custom applications.

The impact of the above-mentioned is broad. On the one hand, there are targeted applications that address the fragmented specific needs — for example, applying machine learning to sensor data for predictive maintenance that reduces expensive, unscheduled downtime. On the other hand, there are a new generation of core ERP, CRM and other major applications.

2. Timely adoption of disruptive business processes

Transformation of business processes embracing the benefits of digitalization has become one of the major challenges of service organizations.

There are common mistakes in late adoption of suitable business processes, their management and deployment culture. However, the primary challenge is embodied in the workforce that is permeated by advanced technology solutions. A business process is about people as much as it's about a procedure, because at its core defining the process is spelling out what people are expected to do in their work. Usually people care deeply about anything that concerns their work, so anything related to changing a process is taken very personally. For that, the organization needs to ensure that its

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workforce has considered the change as an accepted part of their working day.

If the performance culture and change management strategies of the organizational unit have not included the above-mentioned in their primary focus, it is notoriously hard to harvest any value for the newly adopted business processes.

So, how to manage this situation best? The secret source is involvement. The best practices indicate that maximum empowerment of a larger population of business users drives a high performance culture. Making sure that everybody is participating is at least ensuring that everybody is getting access to the organization's relevant Business Intelligence insights. The latter is more than reports and analytics: it is also about being able to connect with the right people to make the right decisions. Organizations need to think of the employees as people who make hundreds of decisions on a daily basis. If you are an executive and want your business to outperform the competitors, you need to empower your people with the best information that are relevant to their roles and are actionable for them.

So, developing a culture of performance across organization especially during major changes is the key to successful adoption of disruptive business processes. It is not just about a new CEO, or new set of ambitious goals. The real power is in empowering people with information and set of applications that are easy for people to adapt: not just the people on the top line but also to people at the bottom, who make hundreds of decisions on a daily basis. When you start pivoting this back to empowering more people with information that is relevant and actionable, it brings tremendous results.

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3. Effective exploitation of the full potential of data

Another challenge is that the percentage of used data in the organization is as low as just 1 percent. The rest 99 is not exploited. The main factor stipulating this notorious phenomenon is the low level of awareness of information and data potential that the business actually generates. In this regard, knowledge management is needed to manage the wealth of big data entering the organization, as well as avoid the loss of accrued knowledge that could otherwise leave the organization. Furthermore, major growth in the availability of data is allowing service organizations to focus on technology components like machine learning, Big Data analytics, and a predictive maintenance paradigm that comprise the best exploitation of the full potential of data.

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Predictive service operations and maintenance

Technology continues to shape the OPEX-heavy field service industries. Along with an increasing emphasis on mobile, major growth in the availability of data is allowing service organizations to focus on technology components like machine learning and predictive analytics with Big data.

Predictive analytics is the use of data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes based on historical data. The goal is to go beyond knowing what has happened to provide the best assessment of what will happen in the future. Service organizations are turning to predictive analytics to embrace a new era of predictive service operations and maintenance paradigm that envisions an end to the break/fix service model, predicting equipment failures and future resource needs, mitigating safety and reliability risks, or improving overall performance.

ZEVIT predictive service operation offering, therefore, focuses on establishing effective business processes across the organization to enable collaboration between different departments in order to generate value from the data, knowledge and experience they have as well as introducing best practices and methods for building statistical and advanced monitors to improve pattern detection and spot abnormalities in assets operation.

The analytical monitors help your organizations to increase the reaction time to service while better allocating the scarce resources and cutting OPEX. They empower your technicians with the awareness of root causes of the problems and with better preparation for first-time fix service of the field assets. But what is even more important, monitors keep your customers satisfied while reducing service disruptions and increasing uptime of their assets.

4. Quick tech adoption by field technicians

The tech adoption by technicians and field crew members is the hardest part of rolling out new solutions. Without this crucial end point of the business value chain the benefits of digital solutions are hard to harvest.

It is, therefore, vital to consider ways that new tech can be made more user friendly by modeling it on consumer solutions that technicians are likely to be familiar with in their daily lives. Moreover, engaging the technicians in the very first stage of designing the application and making sure their knowledge and feedback can be fully fed in the coming solution, not only eases the adaptation period but also makes it much more effective.

In this regard, knowledge and change management are again the helpful remedies, since these are the areas where technology directly interacts with and supports the human

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side of service. As experienced technicians leave the workforce, knowledge management ensures that their accrued expertise doesn't leave the business. On the other side of the coin, change management strategies are a vital consideration as the workforce is permeated by mobile and other more advanced technology solutions.

5. Sustainability in continuous adoption of innovations

As soon as the investment of changes has been done, the chain of adopting innovations usually breaks and organizations fail to continuously thrive due to continuous changes in technology, shifting regulations, and a growing sea of competitors. To not only have a short term success but also stay on top of the technology wave, it is vital to have a continuous support and updates as well as training coming from the market.

In this realm, constant increase in customer satisfaction, that is at the heart of any successful service operation's KPIs, is used to direct that metric. Therefore, the continuous adaptability must be considered as a regularly trained muscle and be part of the organization's strategy.

ZEVIT, as a forward-thinking company, delivers the best practices on how to fully embrace digitalization in your field service business - and how to maintain the sustainable adoption of innovations as a part of the organizations performance culture.

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