



WHITE PAPER

Digital Operations: The Next Evolution of Service Management



Digital Operations supports the management of the end-to-end customer experience and the entire service lifecycle. Digital operations will enable Service Management to break down operational silos to address ALL the interactions between a service organization and their customers.

This white paper discusses how and why digital operations is required for the next evolution of service management.



CONTENTS

What do we mean by Digital Operations and how does it relate to Service Management?	3
Digital transformation necessitates changes in Service Management	4
How capabilities provided by digital technology alter the Service Management process.....	5
What is the fundamental difference between AIOps and Digital Operations?	7
What are the requirements of a Digital Operations Solution?	8
How to fund Digital Operations initiatives	8
The best way to design and plan a Digital Operations initiative.....	9
Vitria, the power of the VIA Digital Operations Solutions Suite.....	9
What makes VIA different.....	11

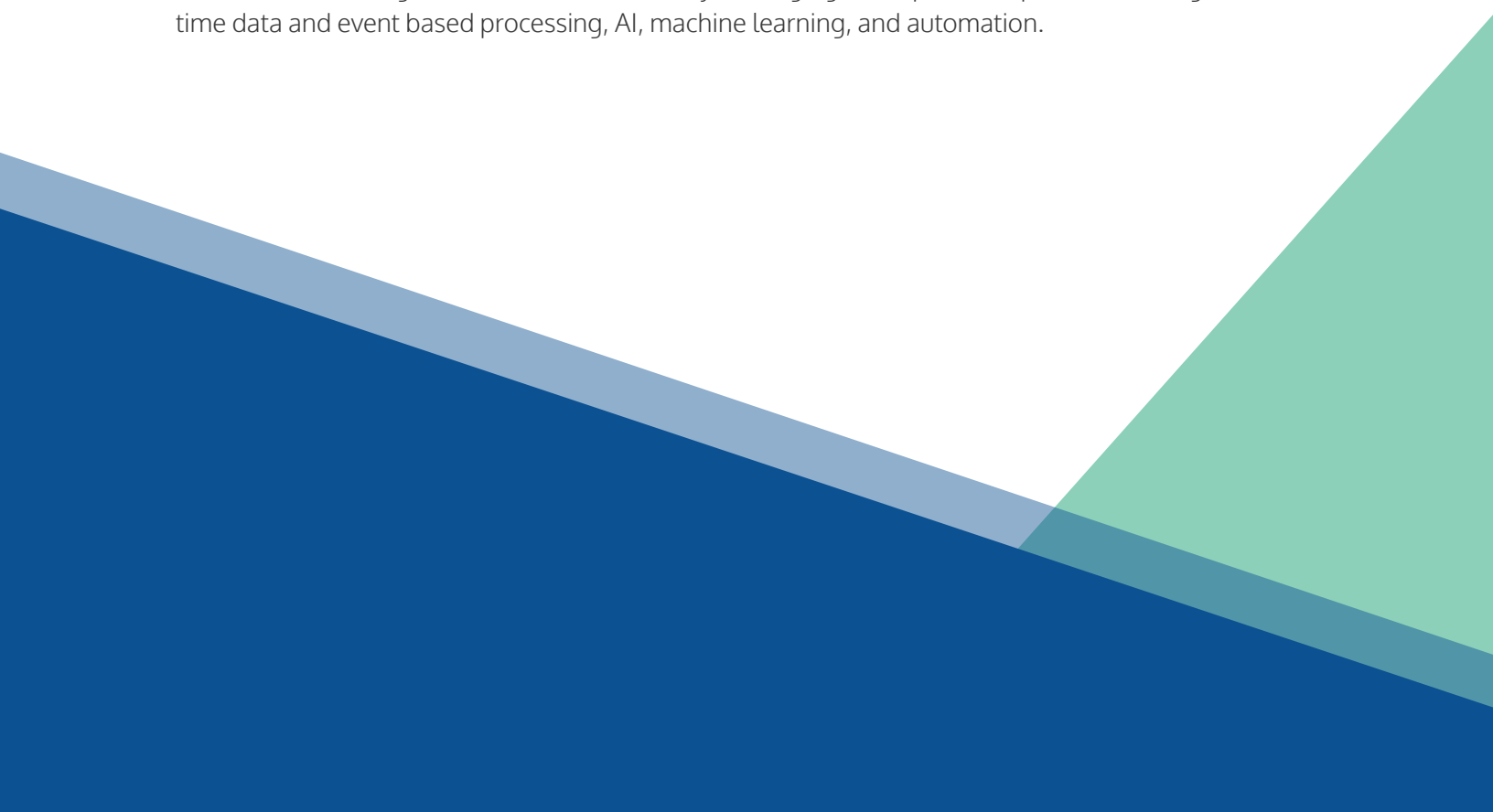
WHAT DO WE MEAN BY DIGITAL OPERATIONS AND HOW DOES IT RELATE TO SERVICE MANAGEMENT?

Digital Operations lives at the intersection of real-time and continuous data analytics, customer experience and operational execution. Digital Operations shorten, automate and more intelligently detect operational anomalies or opportunities. It delivers real-time measurement and visibility of all aspects of a service or process. Digital Operations can also find the correct response during daily service process execution. All of this is accomplished by using all available data across the end-to-end customer journey leveraging advanced analytics, AI, and machine learning techniques.

Service Management is a customer-focused approach to management with an emphasis on continually improving efficiency, effectiveness and reducing cost. The objective of Service Management is to ensure that the right processes, people, and technology are in place so that the organization can meet its business goals. Service management includes all the activities involved in how an organization manages IT services including the planning, design, delivery, operation, and governance of the services.

Service Management principles and practices were founded within IT and defined by ITIL ITSM processes. The term enterprise service management was coined as the use of IT service management principles, best practices and technology outside of the IT realm and was adopted to improve customer support, HR, facility management, customer service and other processes.

In today's era of the digital business, realizing an objective of improving the end-to-end customer experience, service management practices must be extended to include client engagement and back-end business processes. Digital Operations supports and enables the modernization of service management to address the complete client experience across all layers of the service delivery, from infrastructure through business transactions, by leveraging the capabilities provided through real-time data and event based processing, AI, machine learning, and automation.



DIGITAL TRANSFORMATION NECESSITATES CHANGES IN SERVICE MANAGEMENT

It goes without saying that there is an increasing need for legacy enterprises to digitize their operations to compete with digital natives and other traditional competitors that are advancing rapidly in their digital transformation journey. Digital transformation revolves around becoming more agile, more automated and cost effective, and most importantly creating highly engaged customers who are more brand loyal and spend more. Always on and immediate response are no longer 'nice to haves' but customer requirements. Today, first and foremost, companies need to place their customers at the center of their digital transformation strategy to define the transformational change needed. That means they must map their customers journeys and all their client interactions to define how and where their service can be improved. It requires breaking down operational silos across technologies, entities, and applications. It requires moving beyond infrastructure and applications to business processes.

This is not business as usual. Typically, network operations are responsible for monitoring network performance with a focus on secure and efficient data flow and security. Storage infrastructure managers manage the data lifecycle from on network to off-premise environments. Applications development executives focus on tracking how modifications to the applications will improve the customer experience and extend capabilities. But, none of these activities are effectively managed within the overall context of the impact on the customer. The ability to capture, enrich, and analyze data across service layers from infrastructure through the business function in real time drives process change and continuous service improvement for the end customer.

A Digital Operations Solution solves these problems and is able to provide the core IP and differentiator of your business or service going forward. This is why Digital Operations is a critical requirement in the next evolution of Service Management.



HOW CAPABILITIES PROVIDED BY DIGITAL TECHNOLOGY ALTER THE SERVICE MANAGEMENT PROCESS.

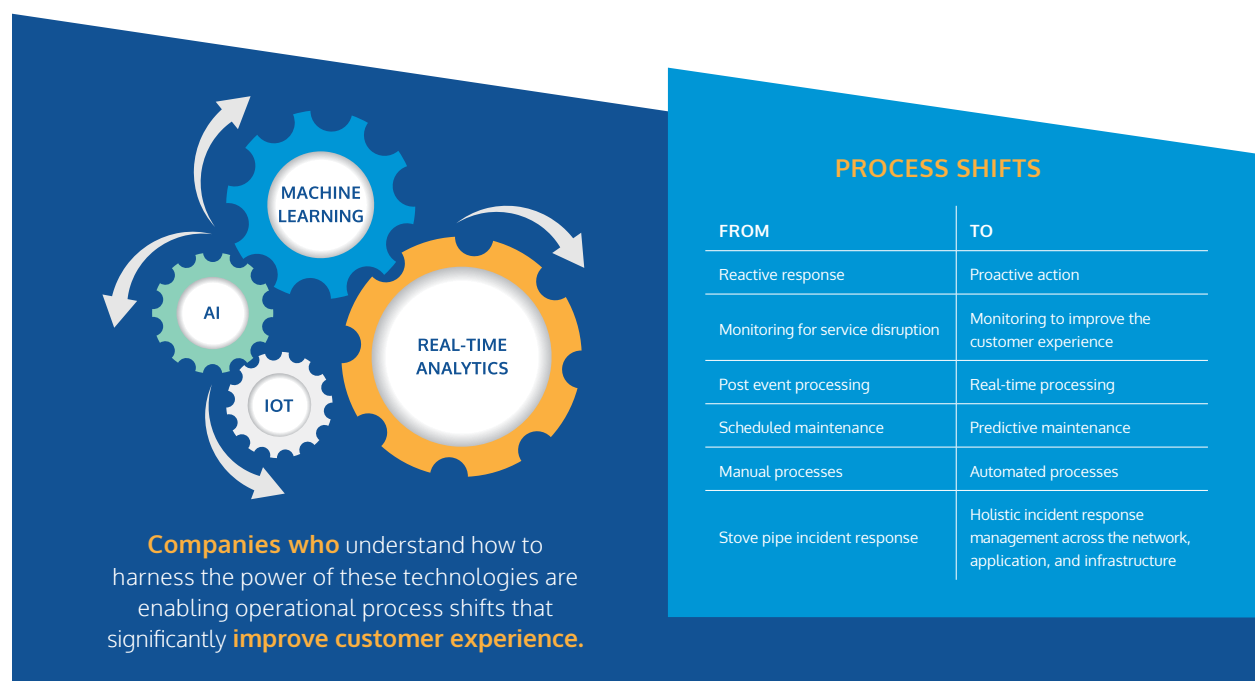
Real-time analytics, machine learning, AI, and IoT devices are transforming the service management process. Digital technology, including the cloud, enable digital transformation and provide the technology needed to support the new era in service management — Digital Operations. Digital technologies can enable and initiate automated responses based on the data, context, and learning algorithms delivered in real-time to propose an action to a human interface or initiate and process execution of an action.

Real-time analytics applies logic and analytics to data as soon as it is produced enabling insights to be developed, conclusions drawn, and action to be taken rapidly based on immediately available information.

Artificial intelligence and machine learning enable decisions to be made and actions to be taken that normally require human expertise and intervention.

Advanced analytics combined with machine learning can continuously seek out data patterns and anomalous behavior and enhance performance, augment capabilities, and initiate and automate ITSM processes.

Digital operations leverage these technologies to transform the Incident Response Lifecycle Management process and deliver dramatic improvements in service performance and the end-to-end customer experience. Digital Operations can deliver quick wins in identifying and capturing process improvements. It allows companies to make the necessary process shifts required to make digital transformation a reality.

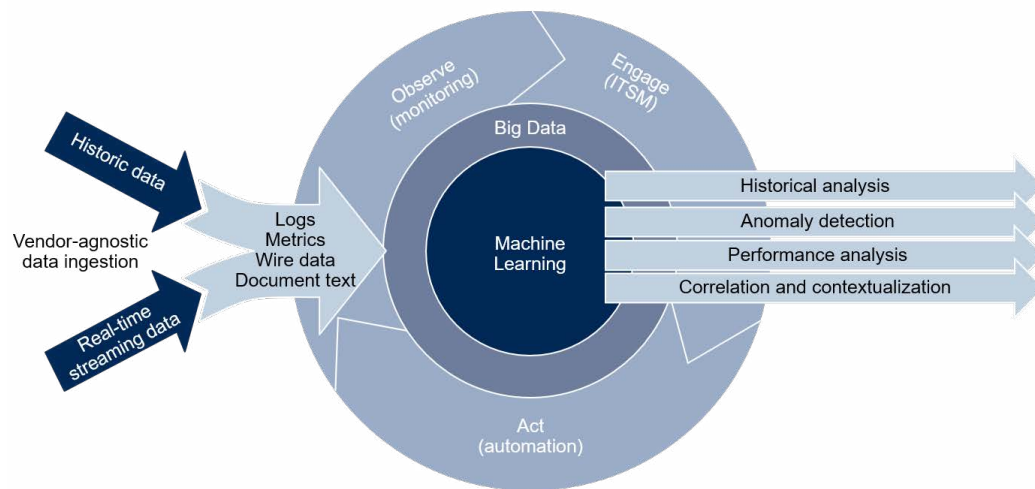


THE EMERGENCE OF AIOPS

AIOps, artificial intelligence for IT Operations, uses the ability to ingest multiple data sources at scale and combine this with machine learning and analytics to improve IT operations processes and tasks, including performance analysis, anomaly detection, event correlation and analysis, IT service management and automation.

Gartner uses the diagram below to describe how AIOps Platforms enable continuous IT operations management.

AIOps Platform Enabling Continuous ITOM



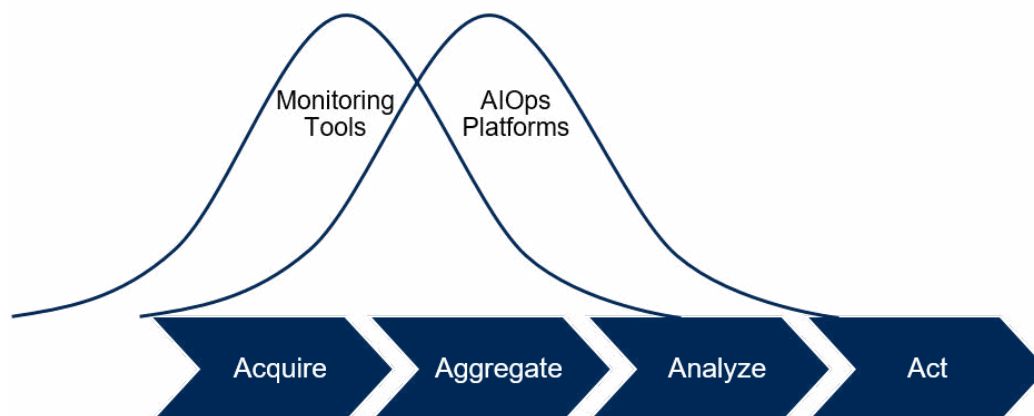
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Source: Gartner, Market Guide for AIOps Platform, Pankaj Prasad and Charley Rich, 12 November 2018

In comparison to monitoring tools, Gartner describes AIOps Platform strengths in data aggregation and analysis. Monitoring tools that are domain specific can feed AIOps data streams to enable visibility and analysis across infrastructure and application domains.

Four Stages of Monitoring



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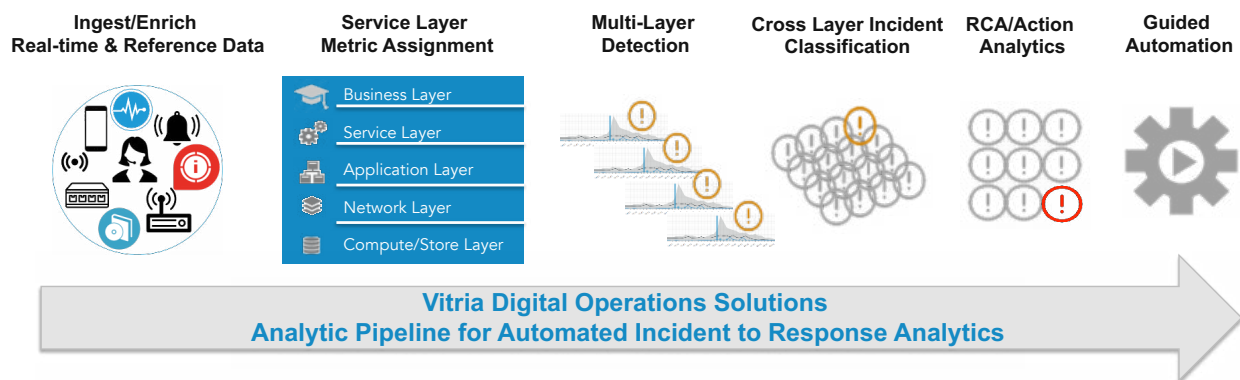
Source: Gartner, Market Guide for AIOps Platform, Pankaj Prasad and Charley Rich, 12 November 2018

WHAT IS THE FUNDAMENTAL DIFFERENCE BETWEEN AIOps AND DIGITAL OPERATIONS?

AIOps focuses on IT operations. Digital Operations focuses on the customer journey and the end-to-end business process, and not only the IT operations that support it. AIOps strengths are in data acquisition and aggregation. Digital Operations crosses all of the Gartner defined monitoring phases from data acquisition through automation of the next best action.

Successful digital transformation requires Digital Operations which moves beyond IT to the business processes they support in real-time and in context.

Digital Operations Crosses Business Layers



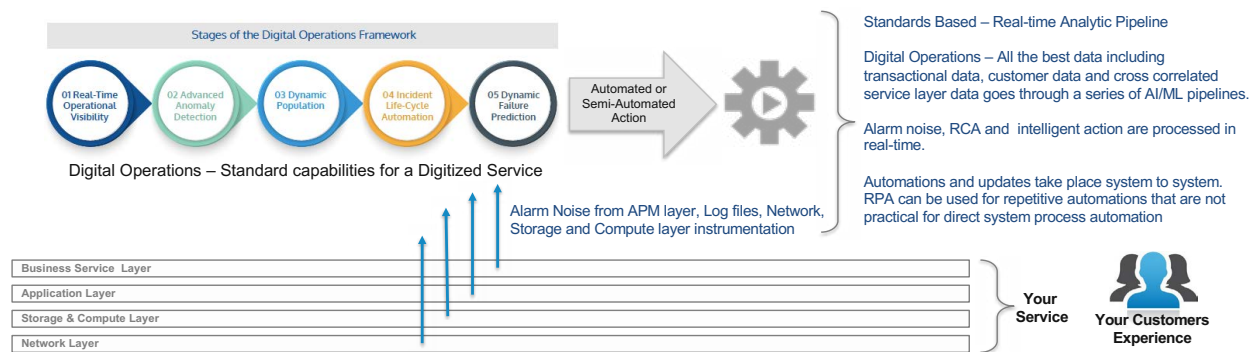
Digital Operations involves real-time understanding ACROSS layers in context. The Analytic rules and models are ever changing, ever improving and vary by stake holder and stage of the pipeline. For example if we detect an anomaly in the APM layer we want to cross correlate against the other layers in the connect of the business transaction to understand what is real and what is noise and what is the appropriate action.

WHAT ARE THE REQUIREMENTS OF A DIGITAL OPERATIONS SOLUTION?

A Digital Operations Solution is able to provide the core IP and differentiator of your business or service going forward. It enables modernization of service management to address the complete client experience across all layers of the service delivery, from infrastructure through business transactions.

A summary of the key requirements of a Digital Operations Solution follow.

- Digital Operations operates on real-time data across service layers using an analytic pipeline with an always-improving portfolio of analytic models, AI and machine learning.
- Because the stages of the pipeline, business rules and analytic models evolve, you need an open core architecture with the necessary low code/no code tools to modify those rules and models quickly without complexity.
- Correlation models and data driven rules measure and determine service anomalies and opportunities using all the best data, from all sources, all the time.
- Intelligent automated actions can be triggered directly, machine-to-machine, semi-automated (supervised form) or as context fed directly to other systems of record.



HOW TO FUND DIGITAL OPERATIONS INITIATIVES

A smart approach to funding Digital Operations initiatives is to begin with a single business function or service. This enables operations executives to measure results and create short sprints of self-funding road maps.

The key is to analyze key performance metrics before and after the digitization initiative. This illustrates the benefit of a smarter, faster, more automated response enriched by data. The business case is further established by observing those measures and linking metrics back to the digital operations improvements.

THE BEST WAY TO DESIGN AND PLAN A DIGITAL OPERATIONS INITIATIVE

We recommend beginning by organizing around the customer engagement processes — the end-to-end services or sub-services. We then gather the data associated with the service from many different dimensions and automate the entire process in order to digitize the incident response lifecycle.

Once the evaluation of all these data feeds is automated, we measure the data against the identified metrics in short sprints as the digitization initiative rolls out. This establishes an analytic pipeline that offers operations executives a single source of real-time truth. As the incident response lifecycle is digitized, it is a best practice to develop a set of starting analytic models and rules that run against the data.

In many cases, the foundational step of aligning all available data — which is comparable and measurable — is skipped over. This often happens when companies are collecting data and trying to stand up projects that are not directed towards an outcome that is connected to a business case.

VITRIA AND THE POWER OF THE VIA DIGITAL OPERATIONS SOLUTIONS SUITE

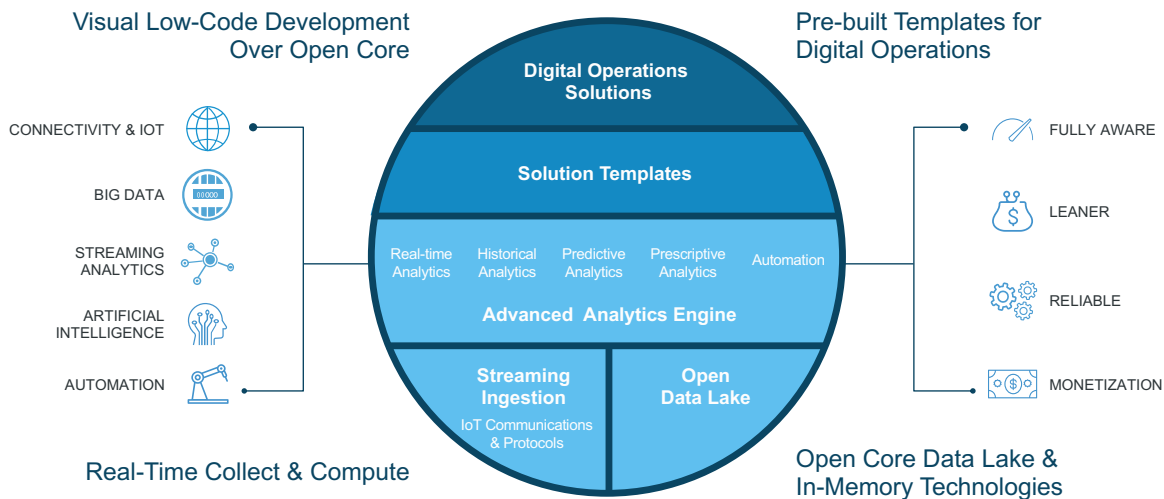
At Vitria, we bring the power of artificial intelligence and machine learning to address the complex issues that surround real-time Digital Operations. We have the expertise to leverage the exploding volume of disparate data assets to enable effective automation.

We work with our clients and deploy our solutions to simplify and improve processes and service delivery in order to provide a better experience for their end users and customers.

Our solutions help our clients make sure that the right people have access to the right context to do their jobs better.



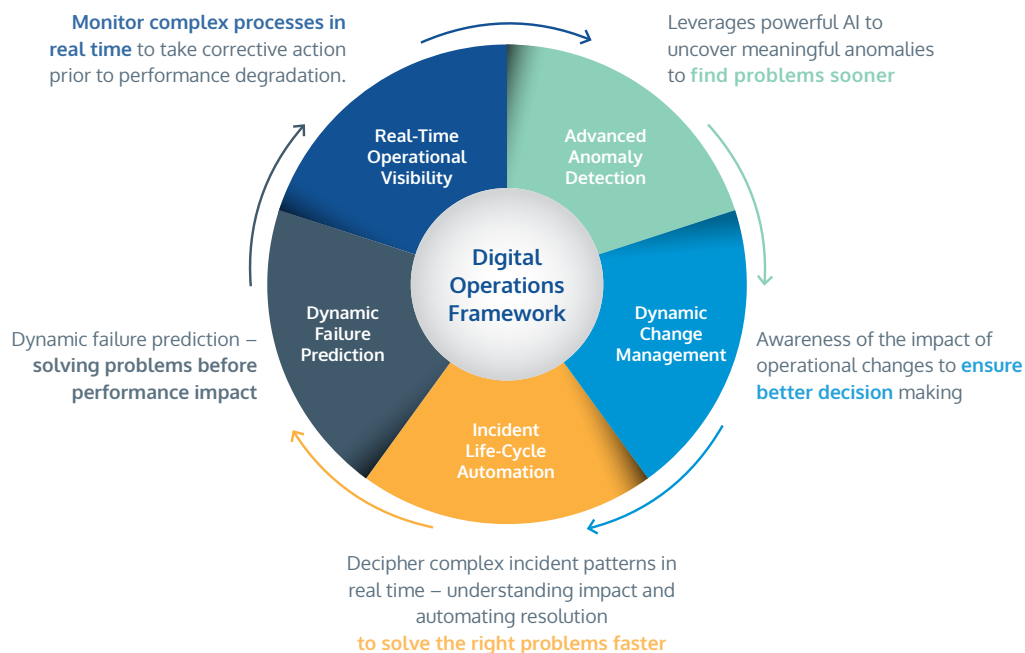
Vitria's VIA Digital Operations Solution



VIA helps speed time-to-deploy by offering a family of pre-configured fast-start solution templates. The templates include core analytic application functions — parsers, schemas, algorithms, dashboards and automation triggers — to guide the organization's steps toward building a complete analytics pipeline.

VIA Digital Operations templates have out-of-the-box live dashboards and reporting interfaces, and custom UIs can be created using VIA authoring tools. The solution templates can easily be configured or extended by customer developers, system integrators or the Vitria field team.

VIA Digital Operations Solution Framework



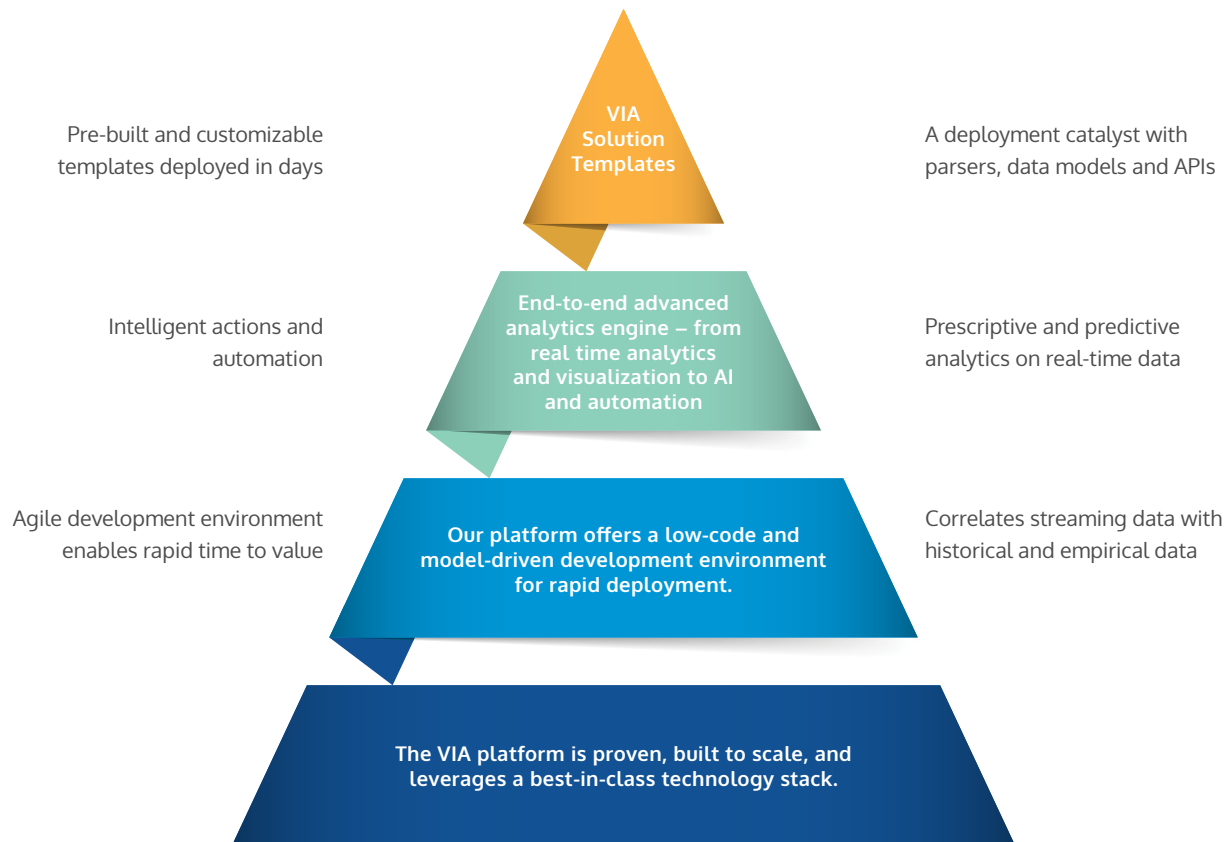
WHAT MAKES VIA DIFFERENT

VIA's Digital Operations Solutions offer an agile, fast and simplified approach to digital transformation and the implementation of new strategies to transform the Incident Response Lifecycle process. From first breaking down data and organizational silos for real-time operational visibility, through the detection of nuanced incidents within a sea of anomalies and alerts, and to dynamically predicting potential failures, VIA's Digital Operations Solution platform and low code environment deliver business value 10x faster than alternatives.

Vitria's VIA platform, Digital Operation Framework, and the suite of Digital Operations Solution templates deliver:

- **Real-Time** operational visibility of end-to-end customer processes.
 - **Proactive** problem prevention through predictive analytics and machine learning.
 - **Automatic** restorative response where feasible and enables rapid intervention through notification where automation is not yet effective.
 - **More Effective** predictive maintenance that extends asset life, improves operational efficiency, and prevents downtime.
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The Vitria Digital Operations Solution Suite



Vitria's goal is to allow our clients to uncover potential issues and problems proactively and support them on their journey to high business process performance, an improved customer experience, and lower operating cost.



ABOUT VITRIA

Vitria optimizes the Digital Operations Journey. VIA Digital Operations Solutions offer an agile, fast and simplified approach to digital transformation. From first breaking down data and organizational silos for real-time visibility, through the detection of nuanced incidents within a sea of anomalies and alerts, to dynamically predicting potential failures, VIA's Digital Operation Solution Templates and low-code platform delivers business value 10X faster than alternatives. Discover more at <http://www.vitria.com>