



# SAP S/4HANA Transformation Guide

De-risk and accelerate your move to SAP S/4HANA.



In collaboration with

**Deloitte.**  
Digital

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# Introduction

SAP S/4HANA represents the most significant change to the SAP core offerings in decades. At a time when the need for AI and real-time insights is driving digital transformation initiatives, SAP S/4HANA is expected to drive greater efficiency and unlock new levels of growth.

Whether your SAP S/4HANA transformation has already begun or you're still in the early planning stages, a seamless transition is essential for minimizing business disruptions and costly delays. Every digital transformation comes with potential risks, and the SAP S/4HANA transformation is no different.

Because the core ERP resides between the applications ecosystem and the processes that need to be integrated, the SAP S/4HANA transformation is dependent on integrations. These integrations can easily become the most time-consuming and complex piece of the puzzle, meaning you need the right strategies to minimize risk during your migration journey.



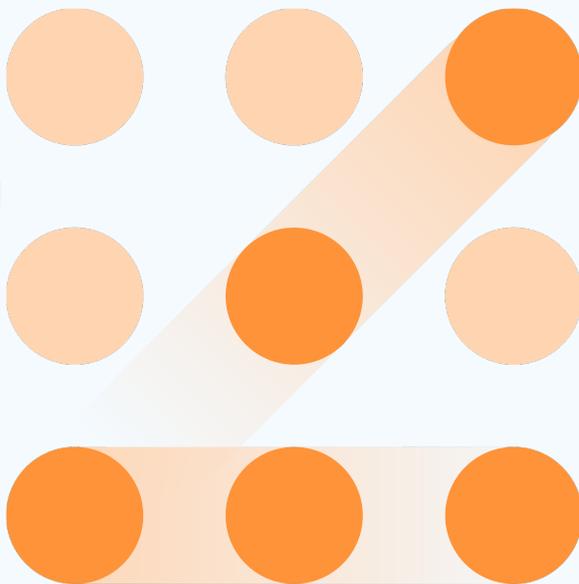
This position paper explores the growing complexity of IT ecosystems and the resulting challenges to digital transformation to help you understand the critical role that integration plays in ensuring a smooth transformation. It will also aim to provide you with the steps for implementing an

integration-centric strategy and examine how MuleSoft can help you accelerate and simplify your SAP S/4HANA migration so you can start using your new system with confidence and agility.

## Benefits of SAP S/4HANA

Available for on-premises, cloud, or hybrid deployment, SAP S/4HANA helps drive efficiency and enable continuous innovation for modern organizations.

- Faster decision-making
- Improved customer experiences
- Real-time insights
- Reduced costs



# The expanding applications ecosystem

For many organizations, SAP is like the beating heart of their enterprise, pumping information to different systems and applications so they can make data-driven decisions that drive efficiency and growth.

Many organizations have spent decades building their SAP landscape with customizations and bespoke solutions to fuel business functions such as supply chain, finance, logistics, and HR management.

As more software solutions and technological innovations enter the market, more applications are added to the SAP network. Of 1,050 IT leaders globally surveyed for the

[MuleSoft Connectivity Benchmark Report](#) (2024), the average estimated number of applications across their digital ecosystems was 991.<sup>1</sup> Organizations connect these applications directly, creating a complex SAP landscape of custom applications, exchanging data through hundreds or thousands of point-to-point integrations.

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**The average organization has 991 applications in its digital ecosystem.<sup>1</sup>**

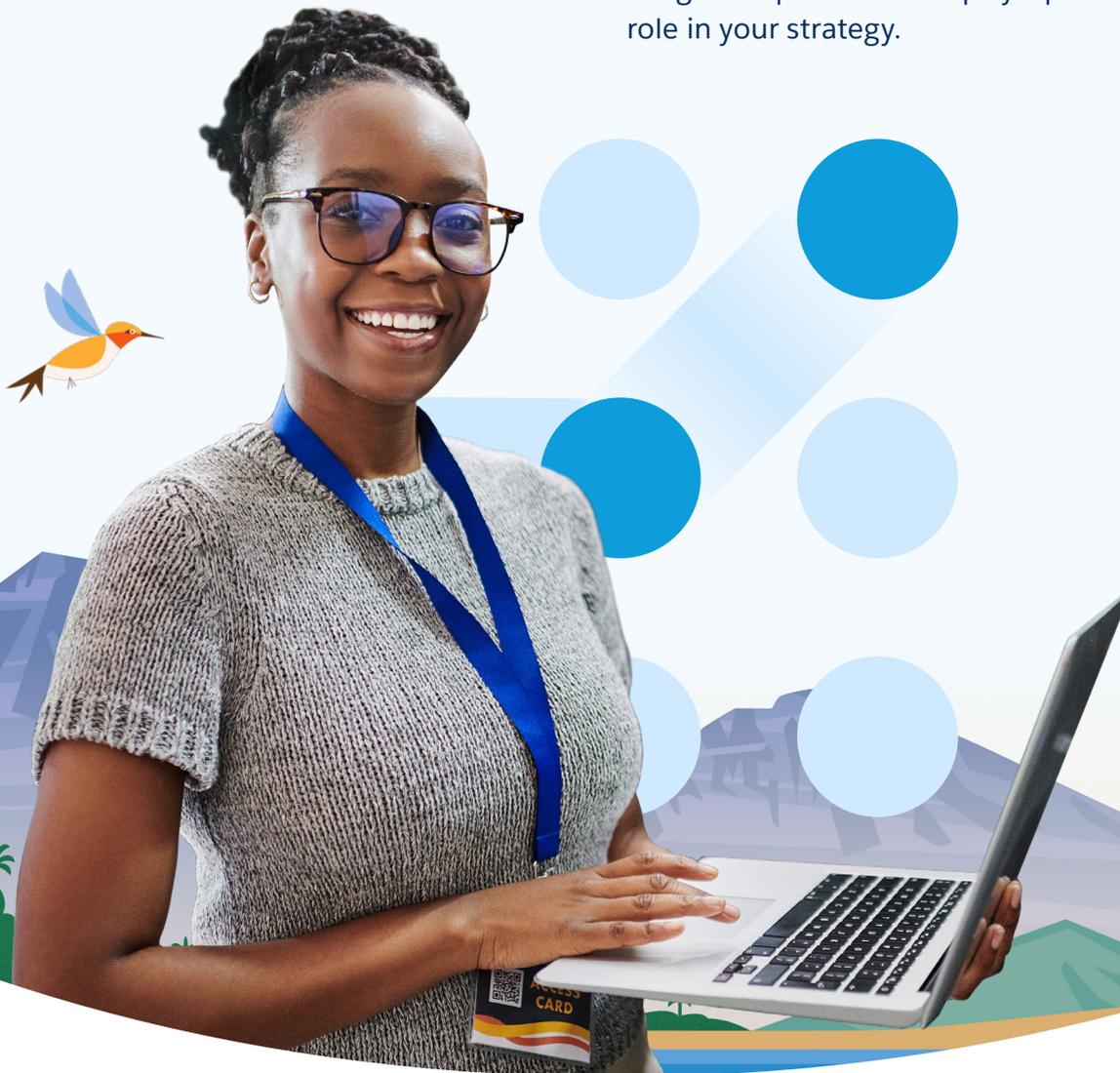
<sup>1</sup>2024 Connectivity Benchmark Report, in collaboration with Deloitte Digital and Vanson Bourne



Historically, systems and processes in the SAP landscape needed to be upgraded once a year. However, organizations are under more pressure to provide customers and partners with real-time insights and faster service. Given the high demand for fast digital innovation, organizations should modernize their systems and applications as frequently as every month. For mobile and web apps, the timeline can be even shorter. With such complex SAP application networks to manage, many organizations lack the agility to modernize at this pace.

In addition to their complexity, these systems often involve extensive codes that are difficult to maintain and almost impossible to reuse. Organizations must start from scratch with every new project, unable to build on previous work.

As the ECC version of SAP nears retirement in 2027, organizations are encouraged to move to SAP S/4HANA to modernize with greater agility and take advantage of its built-in AI, machine learning, and automatic updates. However, digital transformation poses inherent challenges, and transitioning to S/4HANA is no exception. That's where data integration platforms can play a pivotal role in your strategy.



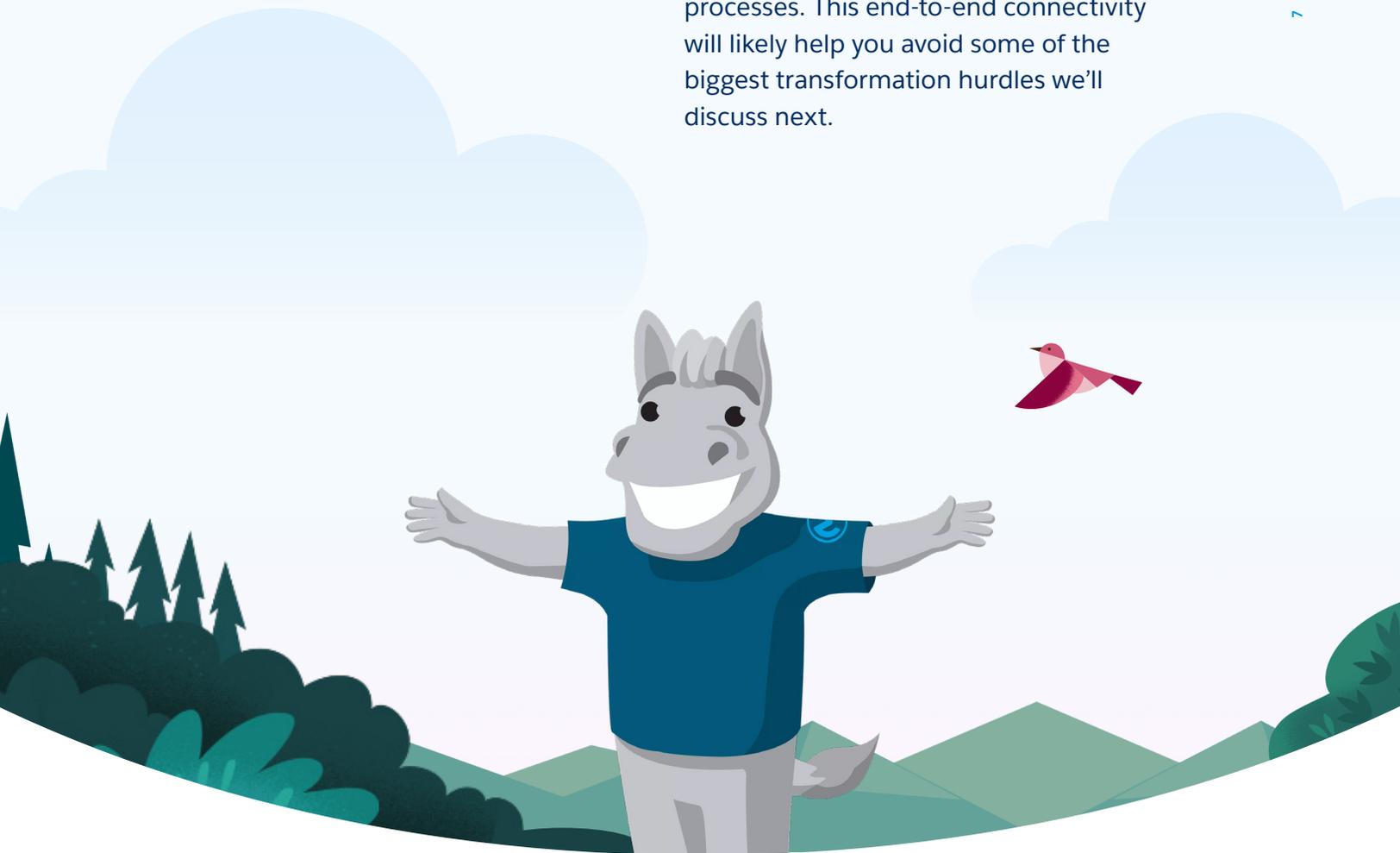
# Build a strategy based on data, connectivity, and integrations

Data is the lifeblood of modern enterprises, so ensuring its quality, security, and availability is vital for a successful transformation.

Integration platforms like MuleSoft are essential for safeguarding data quality and consistency during high-stakes digital transformations involving different systems and applications. For example, MuleSoft connectors help unlock data from SAP and integrate it with non-SAP systems like Salesforce.

This simplifies data exchange and enables real-time data visibility across the organization, allowing transformation projects to advance with minimal roadblocks.

By using MuleSoft, you can enable a seamless flow of information between different systems, departments, and processes. This end-to-end connectivity will likely help you avoid some of the biggest transformation hurdles we'll discuss next.



# Digital transformation challenges

Today's businesses face pressure to invest in digital transformation to meet customer demands for data-driven insights and fast service.

Unfortunately, given the overall complexity of the typical IT ecosystem (including the ERP platform), digital transformations can carry a lot of risks. Without a strong approach to data integration and systems connectivity, these challenges can cause significant disruptions that often extend across the entire enterprise.

When it comes to digital transformation involving ERP, today's businesses come up against three main IT challenges:

## Slow processing times

Without an in-memory database like HANA, legacy platforms often struggle to keep pace with the demands of modern business operations. This can cause sluggish performance that hinders productivity and efficiency. Tasks that should be completed quickly can become bogged down by lengthy processing times, frustrating users and slowing the digital transformation process.

## High ERP implementation failure rates

Over the years, ERP systems have become intricate, requiring careful planning and execution to ensure successful deployment. However, due to their inflexible architecture and complex customizations, ERP projects often run over budget, exceed timelines, or fail to deliver on their objectives. These failures disrupt business operations and reduce confidence in the digital transformation process, often making stakeholders hesitant to invest more resources in future initiatives.

## Siloed data

Siloed data within disparate systems can make it difficult to get a unified view of the organization. In turn, it often becomes harder for teams to collaborate, make data-driven decisions, or take full advantage of digital technologies like analytics and AI. Breaking down these data silos can require significant effort and IT resources to connect disparate systems and standardize data formats, which can further complicate digital transformation and delay its benefits.



Given these challenges, some organizations may hesitate to undertake such a large transformation as the move to S/4HANA, believing it to be too high-risk or costly. However, overcoming these challenges and mitigating risk is possible with the right strategy. The key is to place data and systems integration at the core of your transformation strategy.

Sometimes, the conversation around data integration comes up too late in the migration process. This can lead to difficulties with the potential to grind your migration to a halt, delaying time to value and causing frustration among teams. However, by making integration the cornerstone of your strategy from the beginning, you can avoid the challenges mentioned above and start reaping the benefits of your new SAP system sooner.



**98% of IT leaders say they face challenges with digital transformation, with key drivers being data silos (81%) and the fragility of dependent systems (72%).<sup>1</sup>**



<sup>1</sup>2024 Connectivity Benchmark Report, in collaboration with Deloitte Digital and Vanson Bourne



# Five steps to minimize risk and accelerate your SAP S/4HANA transformation

What does it mean to make integration the cornerstone of your strategy?

Instead of viewing your SAP S/4HANA transformation as a singular solution for a specific platform, it's advisable to approach it as a complete modernization endeavor that spans all other systems across the IT ecosystem.

Essentially, focus on connecting everything using APIs – data, processes, and applications – to avoid many of the costs and risks typically associated with large-scale digital transformation.



## Five steps to activate an integration-centric strategy:



### 1 Catalog your Systems and APIs

Use the preparation phase to inventory the systems that need to be newly integrated and understand the data needs. This step helps you understand the current landscape and identify the specific integration needs from a business functionality standpoint.

Creating a comprehensive inventory clarifies your organization's existing systems, applications, and data sources, framing a holistic view of the entire ecosystem and its interdependencies. Documenting these systems early on can provide insights into legacy technologies, redundancies, and functional gaps, enabling better informed decision-making and strategic planning for the transformation journey.

This inventory also lays the groundwork for developing system APIs by identifying the endpoints, data models, and integration points across your systems. With this knowledge, you can begin designing APIs that align with your business objectives and accelerate your timeline.

In addition to creating an inventory, building out your API catalog during this phase is important. This catalog is a centralized directory containing information about the APIs available in your ecosystem. It typically includes details such as API names and descriptions, functionalities, endpoints, parameters, authentication methods, usage policies, and documentation. This catalog provides developers with the information they need to interact with each API, including sample code, tutorials, and best practices.





## 2 Decide on your integration platform

Choosing a platform that seamlessly integrates with SAP and non-SAP systems (your CRM, for instance) is important to enable real-time data synchronization and workflow orchestration. Selecting the right platform for your SAP S/4HANA integration is critical to ensuring seamless connectivity between your systems and meeting your business partners' evolving connectivity demands.

Your integration platform will act as the central nervous system of your digital ecosystem, facilitating data exchange, process automation, and collaboration across different applications and environments. As organizations increasingly rely on partnerships and ecosystem collaboration, your platform should support various connectivity requirements, including API-based integrations and cloud-to-cloud connections.



## 3 Take a hybrid integration platform approach

Relying on a single integration platform may not address many modern enterprises' diverse connectivity demands. A hybrid integration approach combines the strengths of multiple platforms, including on-premises and cloud-based solutions, to effectively manage the complexity of integrating various systems, applications, and data sources.

While certain platforms might excel in API-led connectivity and cloud integration, certain legacy systems or specialized applications may require different integration capabilities that one platform alone cannot provide. By embracing a hybrid approach, you can leverage the strengths of multiple platforms to orchestrate seamless data exchange, optimize workflows, and enhance collaboration across the entire IT ecosystem.





## 4

### Embrace API-led connectivity

Consider an API-led connectivity approach instead of relying on thousands of point-to-point integrations to connect different systems, data, and applications. APIs can enable organizations to expose their business functions as digital assets that can be used in digital transformations. They also promote discoverability, helping developers easily find and access resources or functionalities within your systems to integrate them into other applications or workflows.

Taking an API-led connectivity approach can greatly reduce the connections needed, simplifying what could otherwise be a long and complex integration process.

The component that makes API-led connectivity effective is the ability to reuse APIs. Unlike the traditional approach, which requires you to build integrations from scratch, you can use APIs as modular building blocks that can be reused. This gives you a head start on each new integration, accelerating project delivery up to three times faster than the point-to-point approach.<sup>1</sup> This is possible with a three-layered approach in which each API has a specific role.

<sup>1</sup>2024 Connectivity Benchmark Report, in collaboration with Deloitte Digital and Vanson Bourne



### The three layers of API-led connectivity:

#### → System API

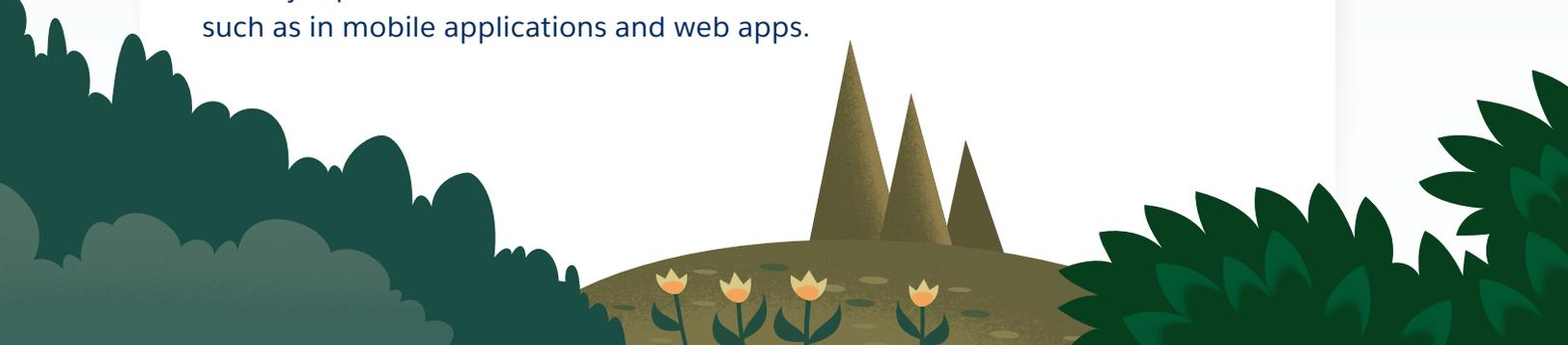
The innermost layer responsible for connecting systems of record, fetching raw data, converting it into a usable format, and ensuring security between backend systems and upstream APIs.

#### → Process API

The layer where business processes are defined. This layer is responsible for ensuring easy communication between different system APIs.

#### → Experience API

This layer provides the interface where users can interact with the data, such as in mobile applications and web apps.





## 5

### **Choose your proven systems integration partner**

Even with the right integration platforms and an API-led approach, integration hurdles can occur. A systems integration partner with tested expertise in SAP S/4HANA will be indispensable in helping you achieve a frictionless implementation.

There's no replacement for seasoned and knowledgeable guidance regarding large-scale integrations. Look for a systems integration partner with a masterful track record in aiding similar organizations in their transformations and a collection of pre-built assets to help simplify and enhance the quality of your implementation. Leaning on a systems integration partner with experience will provide you with proven methodologies and a trusted blueprint to launch your integration strategy and make your migration to SAP S/4HANA as risk-free as possible.



# Integration platforms and partners: MuleSoft + Deloitte Digital

MuleSoft and Deloitte Digital have forged a strategic collaboration to help simplify and accelerate enterprises' transition to SAP S/4HANA with an API-led strategy.

## **MuleSoft: API-led integration platform**

MuleSoft offers a robust integration platform to help facilitate a seamless transition to SAP S/4HANA. Using discoverable and reusable APIs and integrations, MuleSoft makes connecting and securing data from SAP and non-SAP systems easier, enabling rapid, scalable, and secure data exchange across your IT ecosystem.

Through pre-built connectors, reusable integration assets, and a comprehensive suite of integration tools, MuleSoft streamlines the integration process, accelerating time-to-value and minimizing the complexities typically associated with SAP S/4HANA transformations.

By using MuleSoft's agile integration platform, you can achieve greater agility, innovation, and efficiency in your SAP S/4HANA initiatives, laying the groundwork for digital transformation success.

**MuleSoft has been recognized as a Leader in the Magic Quadrant™ for iPaaS and Magic Quadrant for API Management.<sup>2</sup>**

<sup>2</sup>MuleSoft recognized as a Leader by Gartner | MuleSoft

## Deloitte Digital: Specialist consulting and API knowledge

Drawing from their deep knowledge of SAP solutions and extensive experience in digital transformation initiatives, Deloitte Digital collaborates closely with organizations to develop tailored migration strategies that align with their unique business objectives and requirements.

With a Cloud API Vault comprising more than 100 pre-built SAP S4 APIs, Deloitte Digital helps reduce the time required for API integration development and simplifies complex integration projects. Their practitioners also provide industry-specific blueprints that accelerate timelines and implement best practices.

From assessment and planning to execution and post-implementation support, Deloitte Digital provides end-to-end integration services encompassing system architecture design, data migration, change management, application development, and training so you can start driving efficiency and innovation with your new SAP S/4HANA platform.

Learn more about how MuleSoft and Deloitte Digital can accelerate your SAP S/4HANA transformation.

- [Get connected](#)
- [Explore the Deloitte Digital Cloud API Vault](#)
- [Learn more about the MuleSoft Anypoint Platform](#)





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