Brochure

Accelerate Your SAP Transformation with ADM

Lifecycle Management, Functional Testing, and Performance Testing for Successful SAP Transformations

opentext™

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Application Delivery Management (ADM) offers a wide range of solutions to ensure a successful SAP transformation, at any scale. With solutions for lifecycle management, functional testing, and performance testing, the ADM portfolio for SAP is uniquely positioned to help you ensure success.

SAP transformations are a boardroom issue, having the attention of CIOs worldwide. With over 437,000 customers in more than 180 countries, including 92% of the Forbes Global 2000, investment in SAP[1] is visible at the highest levels. SAP is constantly innovating, with advances in technologies such as SAP HANA and SAP Fiori, and is enabling new platforms such as the Internet of Things and the cloud, through the SAP Cloud Platform. At the same time, many SAP customers are making a transition to DevOps, which introduces an additional set of challenges. Keeping up with the changes in SAP offerings, together with the move to DevOps, requires unprecedented technological support for organizations that must provide an uninterrupted service to their business and to their clients, while maintaining a consistently high level of quality.

Why Are SAP Transformations So Demanding?
Most of SAP's customers actually depend on SAP to run their business. Business processes managed by SAP run across the whole organization, and even out to other organizations, such as customers, suppliers, or partners. An interruption to any SAP process could potentially have disastrous consequences for everyone involved. Maintaining that business continuity presents a number of significant challenges, both from the business's perspective and from a technical perspective.

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1 *Source:* **www.sap.com/corporate/en/company.html**

Business Challenges for SAP Customers

No 'One Size Fits All' Migration Path
There's no single blueprint for SAP migrations that works for all organizations. Every migration is unique and has its own distinct challenges.

Hard to Find Specialized Staff
It can be difficult to find and hire SAP experts who have been through a similar transformation, and who can bring their prior experience to the table.

The Show Must Go On
For much of the time, updating SAP means an in-flight update to business-critical processes. When your business depends on SAP, any downtime can be catastrophic.

Quality Must Remain High
Any errors in an SAP system, or errors in data, can propagate quickly to numerous internal and external systems. Maintaining integrity is paramount, and requires extensive testing.

Data Security
Data must be secured, and the organization must comply with data protection and privacy regulations. This can only be done by understanding the regulations and their requirements, and ensuring that any changes to the system don't leave the company liable.

Technical Challenges for SAP Customers

It's not just business challenges. There are many technical challenges as well:

Regulated Environments

SAP environments are typically highly regulated, requiring end-to-end traceability and governance throughout the software development lifecycle.

Proprietary Technology

SAP's user interface, such as SAP GUI, SAPUI5, and SAP Fiori, has proprietary attributes and requires deep technical knowledge in order to test effectively.

Complex Ecosystem

The SAP landscape includes a diverse ecosystem of applications, creating dependencies that slow down development, testing, and integration activities. Many of the communications protocols between SAP and other systems are proprietary. For example, IDOC and RFC is not supported by many testing tools and usually require specialized knowledge.

Varying Pace of Delivery

Organizations typically employ a system of record in the back office that is accessed through a system of engagement on the front end. When the system of record has been around for a while, it tends to be maintained using slower, waterfall-based development methodologies. On the other hand, the system of engagement can be fast-paced and dynamic, using DevOps methodologies to deliver updates almost continuously. Keeping those systems in sync is a challenge, due to the different methodologies, as is sharing information and collaboration between the teams working on the different systems.

SAP S/4HANA Migration Approach

SAP recommends a four-phase approach to migration. The framework supports teams through the different stages of the project, beginning with the initial planning phase, followed by an exploratory stage to validate approaches to the solution. After the third stage of implementing the requirements and testing them, the final phase is deploying the solution and continuously improving it through monitoring and maintenance.

The OpenText™ Application Delivery Management solutions closely accompany customers throughout each stage of their SAP migration to ensure a successful transition.
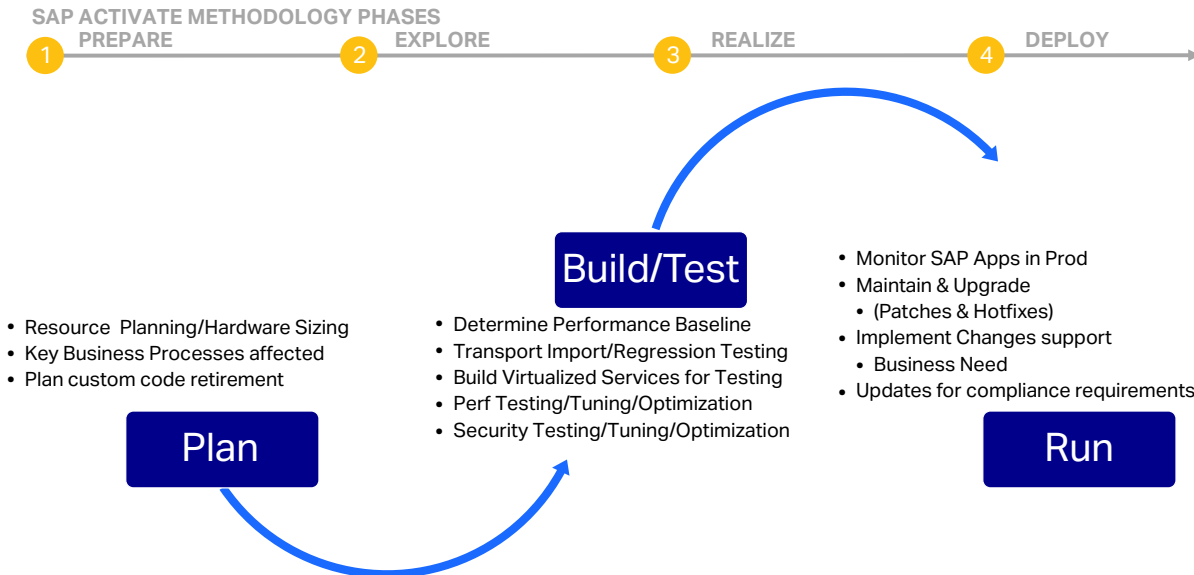

SAP ACTIVATE METHODOLOGY PHASES

1 — PREPARE 2 — EXPLORE 3 — REALIZE 4 — DEPLOY

Build/Test
- Determine Performance Baseline
- Transport Import/Regression Testing
- Build Virtualized Services for Testing
- Perf Testing/Tuning/Optimization
- Security Testing/Tuning/Optimization

Plan
- Resource Planning/Hardware Sizing
- Key Business Processes affected
- Plan custom code retirement

Run
- Monitor SAP Apps in Prod
- Maintain & Upgrade
  - (Patches & Hotfixes)
- Implement Changes support
  - Business Need
- Updates for compliance requirements

Figure 1. SAP S/4HANA Migration Approach

Application Delivery Management Solutions for SAP

While we can't solve every business challenge with your SAP transition, OpenText is uniquely positioned to solve many of the technological challenges that you're likely to encounter.

Application Delivery Management (ADM) is a set of integrated software solutions that enable IT and line of business teams to deliver applications with confidence, faster than ever before. ADM covers the disciplines of application lifecycle management, functional testing, performance engineering, and monitoring in production. The ADM portfolio supports software delivery teams using any development methodology, from traditional waterfall, to modern Agile and fast-paced DevOps. It is designed to support organizations of any size and verticals, from small teams to large enterprises, providing end-to-end visibility into strategic investments all the way from portfolio planning through development, testing, deployment and production.

Here are the products in the ADM portfolio for SAP.

Functional Testing

UFT ONE
OpenText™ UFT One automates functional testing through an intuitive, visual user experience that ties manual testing, automated software testing, and framework-based testing together in one integrated development environment (IDE). The capabilities in UFT One help you significantly reduce the cost, time spent, and complexity of the functional testing process while driving continuous quality. As well as testing applications through their user interface, testers can use UFT One's API testing capabilities to test services and applications through their programming interfaces. UFT One includes support for SAPUI5 objects and methods, SAP Web Dynpro, ABAP, and the SAP NWBC Desktop application.

UFT DEVELOPER
OpenText™ UFT Developer is a powerful and lightweight functional testing solution built specifically for continuous integration and continuous testing. It enables and encourages developers and QA to collaborate in agile teams by using the same tool for development and testing of applications. Among the many technologies enabled by UFT Developer is support for SAP GUI and SAPUI5 applications.

BUSINESS PROCESS TESTING (BPT)
In many organizations, there are people who know how things are supposed to function and how the business processes should flow, and there are those who are able to build automated tests. Sometimes, these people are not aligned. OpenText™ Business Process Testing is a unique way to close this so-called 'Quality Gap', by putting the power of building, data driving, and executing tests in the hands of subject matter experts and QA engineers with no scripting knowledge. How? By taking programming out of those tasks and replacing it with an intuitive, code-free, scriptless, web-based interface for capturing business process flows and storing them as components that can be used for both manual and automated tests.

SPRINTER
OpenText™ Sprinter is the ideal solution for manual testing, providing advanced functionality and a rich toolset to make manual testing more efficient and effective. Everything you need to test software, and report any defects that you find, are all available from within Sprinter, ensuring that you can perform all of the tasks necessary for manual testing with minimum interruptions to your work. Sprinter includes support for SAP GUI and SAPUI5.

Performance Testing

LOADRUNNER PROFESSIONAL
OpenText™ LoadRunner Professional enables testers to create and run performance tests on an unparalleled range of application technologies, to ensure that applications are able to withstand the demands placed on them in production. LoadRunner Professional includes support for SAP applications running on the web, as well as SAP GUI applications, and broad support for the many generic protocols that are employed by SAP applications.

LOADRUNNER ENTERPRISE
OpenText™ LoadRunner Enterprise is a cross-enterprise performance testing tool which enables Performance Testing Centers of Excellence to manage multiple, concurrent performance testing projects across different geographic locations without any need to travel between the locations.

LoadRunner Enterprise administers all internal performance testing needs. With LoadRunner Enterprise, you manage all aspects of large-scale performance testing projects, including resource allocation and scheduling, from a centralized location accessible through the Web. Performance Center helps streamline the testing process, reduce resource costs, and increase operating efficiency.

LoadRunner Enterprise provides the same technological support for SAP as LoadRunner Professional, and adds the ability to generate load to very large scales.

LOADRUNNER CLOUD

OpenText™ LoadRunner Cloud is a cloud-based load-testing service that makes it easy to plan, run, and scale testing for web and mobile apps. With its smarter approach, LoadRunner Cloud makes it easy to plan, run, and scale testing for web and mobile apps. LoadRunner Cloud is a 100 percent cloud based load-testing service that supports web and mobile protocols, including SAP GUI and SAP applications on the web.

The performance testing tools include Micro Focus Network Virtualization, which enables you to test point-to-point performance by incorporating real-world network conditions into your load and performance testing processes.

SERVICE VIRTUALIZATION

OpenText™ Service Virtualization enables delivery teams to virtualize both SAP systems and non-SAP modules, removing the dependencies on any eco-system component, with full support for the SAP service protocols such as iDoc and RFC.

Lifecycle Management

APPLICATION LIFECYCLE MANAGEMENT (ALM)

OpenText™ Application Lifecycle Management (ALM) empowers organizations to manage the core application lifecycle, from requirements through deployment, granting application teams the crucial visibility and collaboration needed for predictable, repeatable, and adaptable delivery of modern applications.

The Enterprise Integration Module for SAP Solution Manager enables ALM to connect to SAP Solution Manager to export blueprints and solution documentation from OpenText™ Solution Manager to ALM's Requirements module. This affords testers full visibility into the requirements from SAP, and allows them to design and run tests to ensure that these requirements are implemented as intended. Furthermore, Solution Manager is updated with the results of these tests to provide end-to-end visibility. In the event that a defect is found and entered in ALM, the defect can be automatically synchronized with the Solution Manager Incident Management module.

Complete Testing Ecosystem

OpenText™ offers a rich ecosystem to extend the capabilities of the products described above even further for a truly effective SAP transformation.

UFT MOBILE

OpenText™ UFT Digital Lab provides an end-to-end quality lab of real devices and emulators to help you build a memorable app experience. Once your devices are connected to UFT Digital Lab, they are available for manual testing, automated functional testing, and performance

testing. Detailed analytics are provided for each device and application that you test through UFT Digital Lab.

ALM OCTANE

OpenText™ ALM Octane is a web-based application lifecycle management platform that enables teams to collaborate easily, manage the application delivery pipeline, and visualize the impact of changes. ALM Octane can be synchronized with ALM to provide end-to-end traceability and governance of SAP projects.

PROJECT AND PORTFOLIO MANAGEMENT (PPM)

An SAP transformation is a strategic investment that affects everyone in the business, and requires close monitoring to ensure that the transformation is on track and on budget. OpenText™ PPM provides cross-portfolio visibility into business demands and ideas, and helps customers make better decisions about strategic priorities, and executing them to ensure that they are delivered on time and within budget.

Unique Capabilities to Address Unique SAP Challenges

Earlier, we enumerated a number of the technical challenges presented by an SAP transformation. The ADM solutions for SAP are in a unique position to address these challenges.
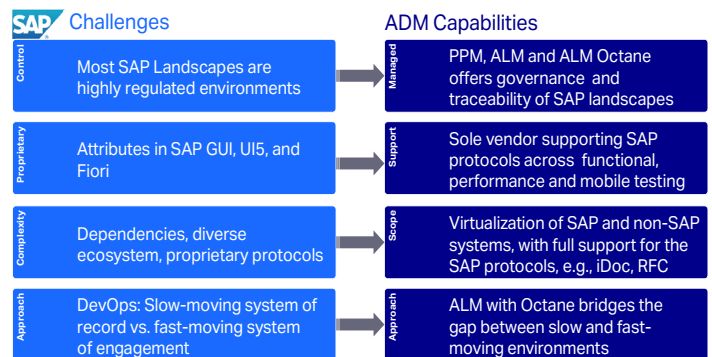

Figure 2. ADM adds value to SAP Landscapes

Let's look at these in more detail.

Regulated Environments

ALM provides governance and traceability of SAP development and maintenance operations.

At a high level, SAP Solution Manager is where the definitions of the business processes are maintained. ALM is able to integrate with Solution Manager and allows managers and testers to see the testing

requirements, the tests, and any defects, all in one place. And through the integration and synchronization between ALM and ALM Octane, all teams get end-to-end visibility into the state of quality, and the development pipelines.

SAP Solution Manager has many capabilities to help customers with their SAP implementation. ALM extends these capabilities by integrating tightly with Solution Manager to deliver test management, change control management, and business process testing to ensure that the testers know what to test, and ensure that service hasn't been inadvertently interrupted by a rogue change.

"ALM on SaaS is ideally suited to large-scale projects that manage the scope of testing a complex ERP implementation with multiple geographies, business functions, and a large volume of configuration requirements."

MAARTEN LOR
Senior Manager
Accenture Amsterdam[2]

Proprietary Technology
ADM solutions support SAP protocols across functional testing, performance testing, and mobile testing.

	ADM SOLUTION	SAP TECHNOLOGY
FUNCTIONAL TESTING	UFT One (GUI/BPT)	SAPGUI, SAPUI5, Fiori, WDA\J, NWBC, Portal, WebCUIF, ITS, Business networks
	UFT One (API Test)	IDOC, RFC, OData
	UFT Developer	SAPUI5, Fiori, SAPGUI
	UFT Digital Lab	Fiori (Hybrid App & Pure Web)
	BPT	Business users, Packaged Apps Kit
	Sprinter	SAPGUI, SAP Web, Fiori Mobile
PERFORMANCE AND VIRTUALIZATION	LoadRunner Professional	SAPGUI, SAPUI5
	LoadRunner Enterprise	SAPGUI, SAPUI5
	LoadRunner Cloud	SAPUI5, Fiori
	Service Virtualization	IDOC, RFC
	Network Virtualization	General
LIFECYCLE	ALM	Solution Manager, BPCA (Business Process Change Analyzer)

Figure 3. ADM Solutions for SAP Technologies

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2 Source: **https://files.asset.microfocus.com/3556/en/3556.pdf**

To ensure that your SAP implementation is working correctly, and that it supports the load that your users will put on it, you need to be able to understand the technical implementation and interfaces between each of the parts of the system. The OpenText functional and performance solutions support the technical protocols that you need in order to test your SAP implementation, and enable you to quickly and easily create extensive tests that can run as part of your delivery pipeline.

Complex Ecosystem
Running a performance test on production systems can cause a performance degradation and user dissatisfaction. Ideally, the part we're testing should be isolated from the production systems. This is where Service Virtualization comes into play.

By virtualizing these systems, and simulating their behavior, they will continue to work as normal in production, and will be effectively disconnected from the system under test. But, the system under test is unaware of that, because Service Virtualization can faithfully emulate their behavior. The system under test behaves as it would in production, and none of the production systems are affected by the test. Once the test is successfully completed, and any issues or defects resolved, we can deploy to production and engage the real systems.

DevOps: Slow-Moving System of Record vs. Fast-Moving System of Engagement
Combining ALM with ALM Octane allows SAP teams to address the DevOps challenge of syncing infrequent changes to systems of record with fast paced changes to systems of engagement

Digital technologies—and the ways we use them in our personal lives and work—have dramatically changed the way business is done. The pace at which it is happening now is accelerating faster than the pace of transformation in organizations. Digital transformation is accelerating the transformation of business activities, processes, and models to fully leverage the changes and opportunities of digital technologies. This is a direct response to the "age of the customer."

In order to close the gap between customer expectations and business's responsiveness, organizations are massively shifting their budgets from the back office to the digital front office—from the 'systems of record' to the 'systems of engagement'.

Systems of record host traditional enterprise applications such as enterprise resource planning, finance/accounting and human capital management.
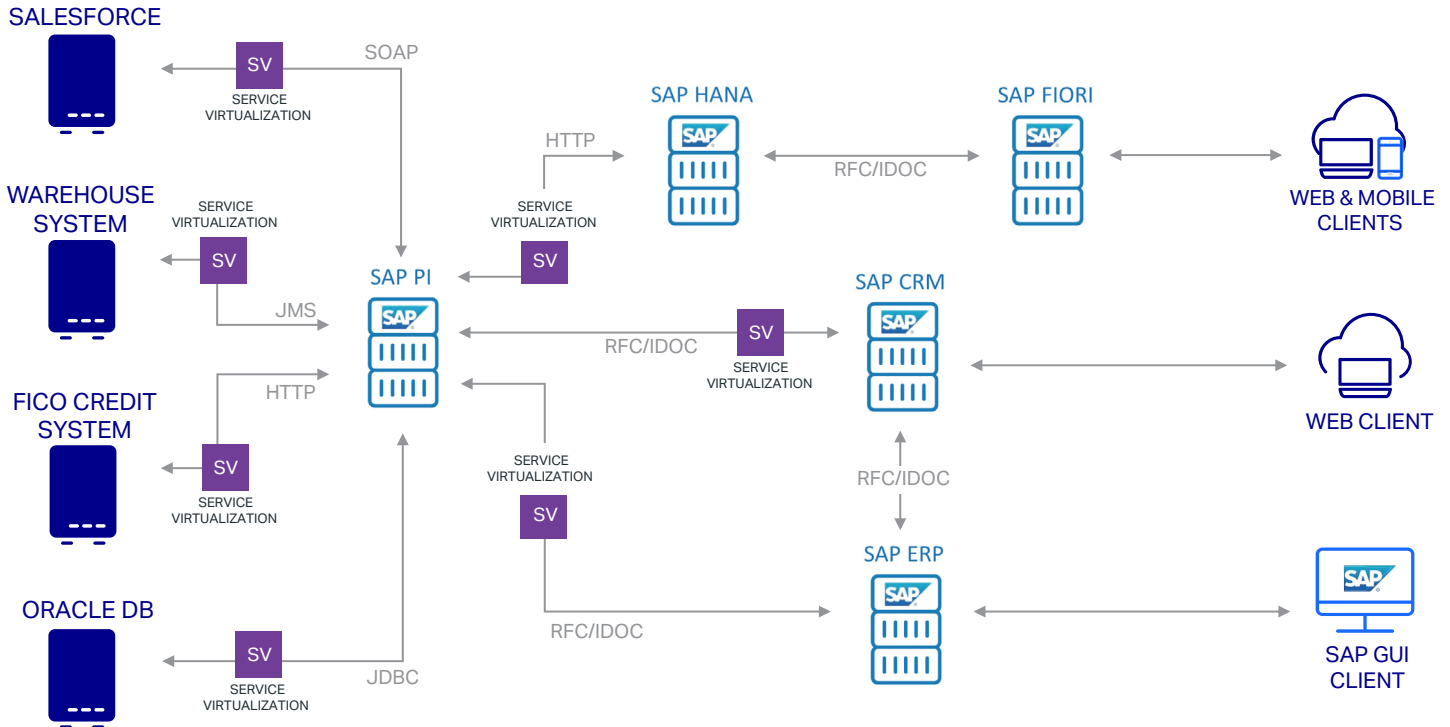
Figure 4. SAP Topology: Multiple Connected Systems

Systems of engagement touch people, empowering customers, partners, and employees with context-rich apps and smart products to help them make decisions on the go.

To meet customer expectations, the digital front end needs to work flawlessly and fast across all channels and platforms, independently of browsers, devices, connection speeds and geographies.

Organizations manage their back office systems with tools such as ALM, but as they modernize the front office, they are moving to ALM Octane to manage the lifecycle of the mobile interfaces, cloud, and web systems that access them. The front office and the back office are connected through their data flow, and hence, the lifecycle management systems must be aligned, through synchronization between ALM Octane and ALM. Test, defect, and other artefacts can be synchronized transparently, with both systems being kept updated in real-time. While there may be different teams working on the front and back end development, they can collaborate and ensure that nothing is missed.
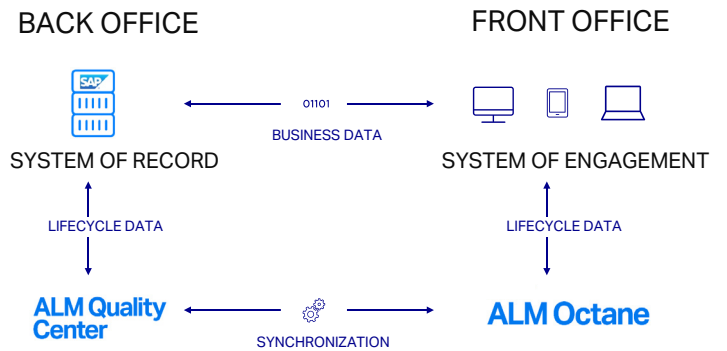

Figure 5. System of Record versus System of Engagement

Summary

Businesses today are inextricably linked with the software that runs the business. As they up-grade or transform their business software, they must ensure that the business continues to function during and after the transformation, without any loss of service or degradation of quality. Any transformation brings its own challenges, but when SAP is the platform underlying the business, there are a number of unique technological challenges that must be addressed in order to ensure business continuity.

OpenText delivers a wide portfolio of ADM products that include support for the most common SAP platforms, and helps organizations to manage and execute their SAP transformations at speed and quality. Customers who choose the OpenText portfolio know that they are drawing on a long and close partnership between SAP and OpenText, which has been focused from the start on ensuring customer success and satisfaction throughout complex SAP transformations.

Learn more at
www.microfocus.com/opentext

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