AMOS Narrative:
Accelerate beyond the platform

AMOS by Atos Syntel and Red Hat is a progressive approach to modernizing DevOps without losing time through technology adoption. Don't lose time re-inventing the wheel, make the wheel work for your business.

Speed and agility when launching new services are essential for success in the digital world.

In the new digital world, business, consumer, user, and regulatory needs are changing all the time. It is clear that only those companies that have transformed and adopted this pace of change will survive. Launching new products, features, and innovation quickly is critical as the marketplace continues to diversify. New agile and efficient start-ups are using simple but powerful workflows and business models built on cloud-native foundations are increasing the pressure as they set new standards around time-to-market.

> ***As Gartner states, "Meeting the challenges of the digital economy requires organizations of all sizes to increase their responsiveness to business needs. For application development (AD) leaders, this means accelerating the development and maintenance of applications without sacrificing quality."***

PaaS/Container platforms like OpenShift provide businesses with the capability to standardize their technology landscape; simplifying their development and application environments, and aligning IT with the demands of the business. This ability to react quickly will then pay out in a faster time-to-market and a stronger competitive advantage. It seems logical therefore, that many organizations have started to build their own platform and are working out how to manage and integrate it - but very few are actually using it.

You can compare the scenario with the invention of the wheel. The wheel has been invented but lots of businesses, and departments within these businesses, are inventing their own wheels. However, very few are using the wheel to drive their business forward. This is a waste of time and scarce resources, and can only frustrate users further.

They are faced with challenges such as:

- How do I migrate my legacy applications in a scalable way?
- How do I optimize and automate my DevOps platform to gain maximum efficiencies?
- How do I deploy my new DevOps platform at speed?
- How do I benefit from cloud-based DevOps but maintain high levels of security?

Atos Managed OpenShift (AMOS) addresses these challenges and is the cornerstone to helping organizations modernize their application landscape and develop truly cloud-native applications. AMOS unites developers and IT operations by providing a single managed container platform with one pane of glass through which to view and manage all applications. It brings together Atos Syntel's comprehensive migration, automation, and application transformation experiences and tools (e.g. SyntBots) with Red Hat's open source innovation. This means businesses can rapidly move to a standard DevOps environment that allows them to envision, build, and roll-out first-class cloud-native applications.

redhat | Atos

AMOS - migrating legacy workloads at industrial scale

Enterprises need to transform their legacy applications to make them future-ready, whilst also innovating and developing new digital services. Moving hundreds and thousands of applications to a cloud-based DevOps environment requires a systematic framework and a high volume of skills to assess, migrate, and modernize applications at scale.

Atos assesses workloads and determines the framework for migration to OpenShift using the Atos Decision Factory and Red Hat Navigate. We consider both business criteria (e.g. infrastructure needs, context of use, data privacy, release roadmap, challenges) and technological characteristics (e.g. architectural setup, age of application, current release of applications) before recommending the transformation option and most appropriate cloud service and deployment model to ensure you gain maximum benefit.

With Atos Syntel's 23,000 experts in 72 locations around the globe, we can provide greater cloud, application transformation, and migration capabilities to enhance our proven service and platform capabilities. This can include moving costly COBOL/mainframe or legacy Java monolithic applications to AMOS, and migration to a new DevOps platform.

Our legacy modernization services operate in three key areas:

1. Application modernization - employ Atos Syntel's low-risk, automation-powered application modernization services (via SyntBots) to deliver loosely coupled, microservice-based, cloud-native applications for improved business agility, reduced complexity, and faster time-to-market.

Proof-point: So how does SyntBots help with application modernization?
The SyntBots umbrella has tools and accelerators such as Decision Factory (DF), Methodology for Applications to be Cloud Hosted (MACH) and Cloud Code Automation Tool (CcAT). DF and MACH assist in planning, discovering, analyzing, and recommending the migration path. During the discovery phase, portfolio analysis of existing infrastructure and application landscape is undertaken. Following interviews with enterprise stakeholders, a detailed assessment report is generated. It contains applications complexity scoring, target cloud platform, reference architecture on cloud and ROI calculations.

Atos Syntel leverages CcAT to automatically scan existing code to ensure what gets deployed is cloud-native to speed the cloud migration journey, and remediate red flagged items. SyntBots also has Cloud Studio, which automates pipeline to deploy application containers in an automated fashion.

Legacy modernization tools help in legacy mainframe or 3GL/4GL source code to the modern application stack.

2. Quickly migrate legacy applications to the cloud with our automated solutions to experience lower infrastructure costs, faster time-to-market, increased responsiveness, and improved scalability and availability.

Proof-point: What is really automated to enable quick legacy application migration?
Exit Legacy is Atos' solution for faster, cheaper, low risk legacy transformation.

The solution translates legacy assembler to Common Business Oriented Language (COBOL), and most 3rd and 4th generation code into Java, C# and Python, with appropriate changes to the data store and user interface. It also assists in Business Rule Extraction from legacy application.

The CcAT tool assists in automatically scanning entire code and listing lines of code which are not meeting cloud-native guidelines, and are therefore not ready to move to cloud. This tool results in a reduction in SME efforts and reducing time-to-market for cloud-enabled applications.

3. Data modernization - unlock the knowledge in your legacy databases with modern data architectures that protect your sensitive data, while efficiently leveraging it for real-time insights and more effective decision-making.

Proof-point: How do we unlock the knowledge in legacy databases?
Atos Syntel Data Modernization tool-kit (DMTK) helps to visualize, validate, mask, and transfer the production

data to multiple destinations, while managing data privacy and protection for sensitive data. DMTK also performs scheduled test data refreshes at periodic intervals. The masking feature includes seven different algorithms to choose from, and also includes propagated masking.

AMOS intelligent automation for DevOps

The key to business success is intelligent automation of DevOps. SyntBots is Atos Syntel's next-gen IT automation platform that utilizes recursive and intelligent automation to transform IT operations, DevOps, and processes across enterprises. We combine SyntBots with AMOS to create agile development, environment automation, and a powerful set of reusable test automation tools to deliver continuous testing and delivery, architectural compliance, and automated QA across the entire enterprise development function.

By implementing a shift-left approach i.e. software and system testing earlier in the lifecycle, a standardized process, a tool-agnostic test automation framework, and a library of domain-specific testing accelerators, SyntBots for Product Engineering goes way beyond simply reducing the cost of testing. It **transforms a traditional QA function** into quality engineering. It also reduces manual effort, improves software quality, promotes continuous improvement, enables better predictability, and speeds-up releases, enabling your clients to be the first-to-market with new products and services.

Automated IT operations bring in a single pane of automation across monitoring, event handling, recovery, and resolution. Coupled with intelligent automation, this enables significant increases in platform availability increasing productivity, whilst eliminating costs associated with manual effort invested in these activities.

AMOS Blueprint deploying DevOps capability in days

Moving to a DevOps environment can take a long time, with lots of unknowns and expensive resources needed – and not forgetting the required cultural change.

This can all be **short circuited with AMOS** which is based on standard blueprints that can be implemented within days to accelerate the move to agile DevOps (based on the underlying standardized infrastructure e.g. AWS).

The use of blueprints extends to the use of Red Hat Ansible where Atos creates runbooks i.e. as a compilation of routine procedures and operations that the system administrator or operator carries out which will give AMOS customers a market advantage. Automation is the key to intelligent DevOps and Ansible is the key to automation. It captures knowledge unique to the customer and makes it standardized using the playbooks, in a very controlled way.

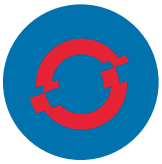
Atos and Red Hat have signed a global agreement for Ansible. Red Hat Ansible is an open source community project sponsored by Red Hat. **Ansible is the only automation language that can be used across entire IT teams** from systems and network administrators, to developers and managers. It will be used as the standard approach across Atos accounts for infrastructure, supporting Continuous Integration and Continuous Development, allowing them to operate with no downtime.

AMOS for on-premise private cloud

Seeing a demand for highly customized, complex environments, Atos and Red Hat have been adapting AMOS to suit. This means organizations can save time whilst delivering highly configured, secure platforms to address the needs of apps that aren't cloud-ready.

1. IDC White Paper | The Business Value of Red Hat OpenShift 2017

What is Atos Managed OpenShift?



Atos Managed OpenShift (AMOS) was developed in the Red Hat Open Innovation Labs and unites developers and IT operations by providing the leading container platform OpenShift as a managed service. With Atos Managed OpenShift at the heart of digital transformation, organizations can rely on an agile container platform that can be combined with a managed stack from IaaS to Application Cloud Platform. It addresses the business needs for both 'future-fit' legacy workloads alongside modern containerized/micro-service applications, all running over a choice of cloud and infrastructure types.

The benefits of AMOS

1. Deliver services to market quicker, with 66% faster development life cycles.[1]

This is achieved through standardization, automation and defined CI/CD toolchains, which frees-up development teams from operational work.

2. Fuel innovation and exceed customer expectations by adapting digital services whenever needed. Benefit from an average of $1.29 million in annual benefits per 100 developers. [1]

The release of new digital services and functions are helping organizations to create additional revenues with existing as well as new customers.

3. Create the right culture to rapidly launch new services to customers. Enterprises can respond faster to business demands, with developer productivity increasing by 300%.[1]

By focusing on value adding tasks rather than repetitive low value ones.

4. Remove the constraints of legacy applications and platforms and enjoy efficiencies of 35% less IT staff time per application.[1]

By removing the need for human intervention, allowing developers to focus on coding.

5. Full portability across clouds thanks to OpenShift's native support of Kubernetes, the market standard for container deployment.[1]

Our experience

We have deployed AMOS across many industries including manufacturing, pharmaceutical, financial services, transport, and logistics.

Manufacturing

We helped one of the largest manufacturers worldwide, with roughly 180 locations, move to a 100% private cloud in its physical data centers supported by a zero-touch development platform. This enabled the digital teams across its global manufacturing business to securely access and build cloud-native, container- and analytics-based applications. This included a cultural as well as a technological change.

The result was the manufacturer could deploy new apps at speed, with a standardized approach, using a container based on a highly secure, multi-tenant solution. We helped accelerate legacy application migration, identifying the apps that could move, which needed refreshing, and which retiring. Our focus was on early business benefits and quickly getting workloads from the thousands of apps onto AMOS.

Pharmaceutical

We recently won an 18-month Operations Management contract for OpenShift clusters. The customer is a large German pharmaceutical manufacturer with global presence. We deployed five OpenShift Clusters in Germany and the USA for a large German pharmaceutical company. There are plans to rollout OpenShift in Asia and South America as well.

We were able to do a knowledge transfer from the existing Ops team and after due diligence, implemented AMOS control plane. We provide 24X7 support from offshore including ITIL process management.

Logistics

We helped one of UK's leading national logistics and postal services partner to reduce time to market for applications by 66%.

AMOS delivered a full managed OpenShift container platform service, migrating, porting and hosting applications to a private Atos Cloud (Bullion). Platform operations include the provisioning, maintenance, monitoring, evergreening and run of the platform, enabling in-house and third-party application DevOps teams to focus 100% of their time on end user value.

This meant that capability gets delivered at an accelerated rate, reducing time to market by 66% for applications.