

The speed of agility

Digital transformation: impacts on application management

With the digital transformation, companies continuously modernize their IT, develop innovation and rapidly shift to cloud based models. A complete agility during any phase of the application lifecycle is paramount, from development to production in various environments being private, public and hybrid clouds or on-premises.

Indeed, according to analysts, 54% of all organizations are already hybrid-cloud to gain

competitive advantage with a better time-to-market, optimized TCO, simplified IT management and greater agility. Within three years, 2 out of 3 organizations will have over 50% of their applications in the cloud.

Digital transformation requires more application development efficiency and the cloud enablement of existing and new applications. Responsiveness to business needs requires agility during all the application lifecycle.

For business application development teams

The development team's challenge is all about productivity and time-to-market, rapidly designing and deploying new business applications, with a focus on business issues and also capitalizing on the existing application asset. Only agile tools and processes can help to meet the expectations, enhance the developer collaboration and limit the silo-effects.

For the IT operations

Facing competitive markets with a rapid move to clouds, business lines have independently multiplied their own application environments and « Shadow IT » rapidly grew.

IT operations must now comfort their position as the IT service provider: designing the architecture, selecting the technologies, providing SLAs to the business lines while rationalizing the IT assets with a full control of the IT service quality and IT cost optimizations.

Alien4cloud, the speed of agility

Alien4cloud software suite: Enterprise DevOps platform & Cloud enabler

Alien4cloud is an open-source based software suite. It fully automates the application lifecycle, from development to production both on premise and for all types of cloud.

Alien4cloud reconciles IT operations and business lines.

Accelerate business application development

Alien4cloud is a software suite allowing collaborative developments and deployments of portable applications leveraging a catalog of reusable TOSCA-based components and blueprints through a self-service on demand.

The alien4cloud self-service has been designed to help application developers to keep focused on the business side of their applications.

User roles are configurable to optimize the collaboration between users and developers as well as the resource consumption.

Deployment in a few minutes instead of a few days without the need of expert support

Alien4cloud allows customers to leverage the best infrastructure, virtual or physical, private or public, during all steps of the application lifecycle on an on-demand basis by abstracting the application from the infrastructure.

A cloud brokering service helps IT operations to select the right cloud through cloud scenario evaluations.

Alien4cloud brings more agility, efficiency and resources control providing the following:

- ▶ a role based self-service portal,
- ▶ a powerful blueprints designer,
- ▶ a TOSCA component and blueprint catalog accelerating the application design, reusability and guarantying no cloud provider lock-in,
- ▶ application portability across different infrastructures.

Alien4cloud is TOSCA compliant

(Topology and Orchestration Specification for Cloud Applications)

OASIS TOSCA enables a unique eco-system, supported by a large and growing number of international industry leaders (manufacturers, editors, integrators...).

OASIS:

- ▶ 600+ member organizations
- ▶ 5000+ participants spanning 65+ countries

TOSCA:

- ▶ 150+ members
- ▶ 35+ companies & orgs

TOSCA is proposing an interoperable description of applications and infrastructures. This modelling is independent of any supplier, service and technology.

TOSCA allows defining the deployment of an application, how to migrate it, how to burst it (auto scaling) and how to repair it (self healing).

Master your digital transformation

As part of their digital transformation, organizations will migrate their existing applications on clouds and will design portable cloud applications. Using alien4cloud, developers model once and deploy in one click everywhere. Organizations will store their applications and data sets

and make them available in a marketplace accessible to users, developers and business departments as well as to their partners and customers.

Alien4cloud is not a disruptive technology. It respects the traditional IT principles, while being compliant with the

new development paradigm (PaaS, containers...). It allows a seamless integration of the applications within the existing IT infrastructure. The reusability of components and blueprints guarantees the industrialization of the development and deployment activities.

Industrialize hybrid cloud enablement at scale with no cloud vendor lock-in

As part of its digital transformation, a large French retail bank wanted to migrate 100s of applications on 1000s of virtual machines onto Cloud platforms, public or private. In addition, they wanted a full openness that can only be guaranteed by a TOSCA-compliant platform. They decided to leverage TOSCA as a DevOps package to capture the entire application stack.

Alien4cloud helps the retail bank to industrialize the hybrid cloud enablement process at scale while avoiding any cloud vendor lock-in.

Atos provided the professional services to accompany the teams along the project, the consulting and training services as well as some development services.



As part of its **digital transformation** a large retail bank **migrates 100s of applications** onto **Cloud platforms, public or private.**

Improve your application lifecycle automation with a new DevOps platform

As part of its digital transition, a large French bank (through an IT provider) wanted to centrally distribute Hadoop solutions as a self-service for the group subsidiaries. They did not have in-house expertise in complex Hadoop solutions.

Atos has provided alien4cloud, consulting services and training. Alien4cloud accelerated the availability of Hadoop cluster provisioning (from days to minutes) and easily adapted the standard Hadoop topology to business departments (components, versions, ...).



*An IT provider of a large bank centrally distributes Hadoop solutions as a self-service for all the group subsidiaries. It **did not have in-house expertise** on complex Hadoop solutions.*

Be time to market with your enterprise marketplace

One of the largest professional services firm had the objective to provide an application marketplace for its employees and customers.

Business users will easily select an application, use available data sets, and deploy the application and data in any location (regional Data centers, private or public clouds).

Hybrid cloud strategy was critical. Some sensitive data sets and applications had to be deployed only on private and secure clouds.

A marketplace powered by alien4cloud provides applications and data sets through a self-service with configurable business rules.



*One of the **largest professional services firm** in the world implements an **enterprise application marketplace**.*

Design applications in a few clicks with the service modeler

Alien4cloud application platform modeling allows to graphically design components and blueprints of an application, independently from the infrastructure.

With the powerful designer, one can easily drag and drop components, describe workflows, build blueprints and save them as templates.

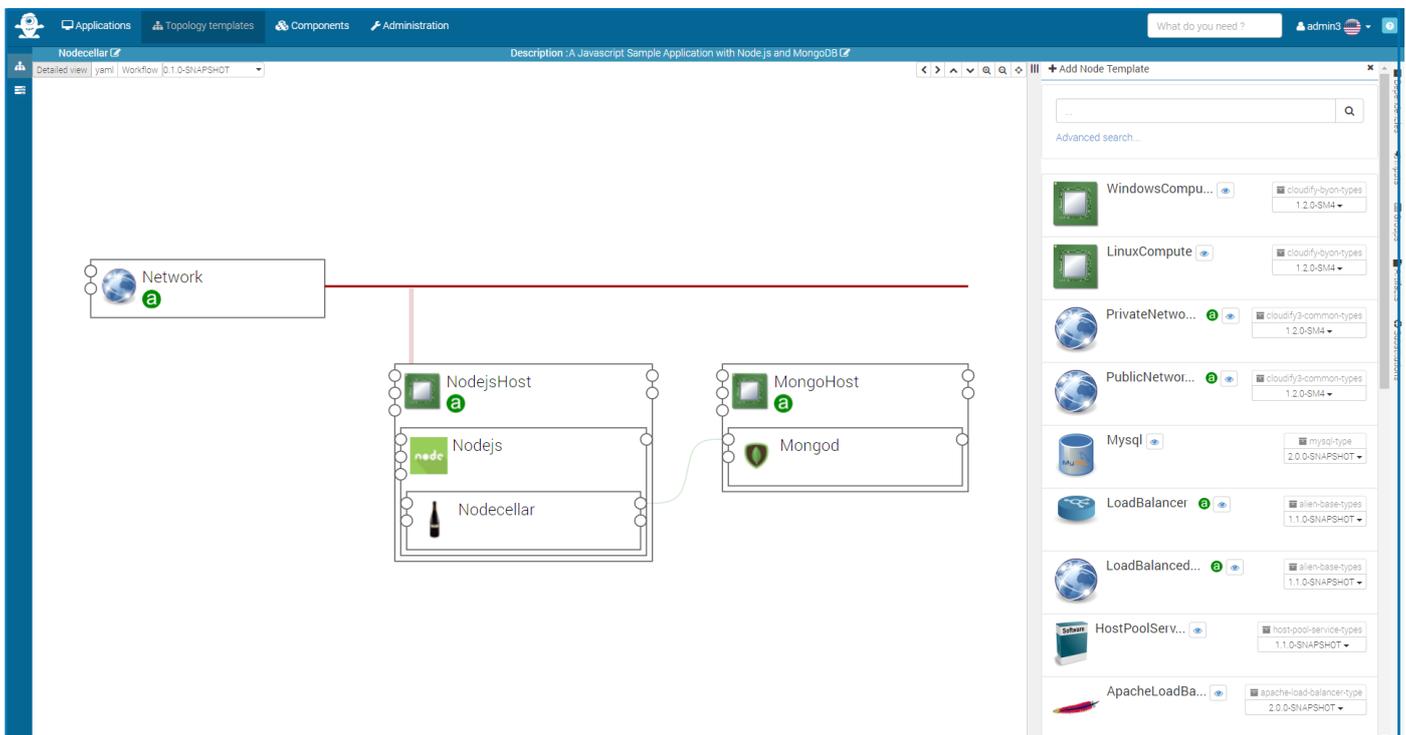
Users can easily manage the deployment of applications by selecting the infrastructure targets

(deployment location) and the needed infrastructure resources, and by defining its fine-grained parameters.

In order to accelerate the application design and improve reusability, alien4cloud provides a components and blueprints catalog, leveraging OASIS TOSCA core concepts.

Alien4cloud improves reusability and portability of the components.

Open source components are already available. Developers can reuse these components and also create and share new ones within the catalog. Reusing components and blueprints accelerates the development, eases the collaboration but also improves the application quality and performance. Quickly DevOps teams are able to design portable and reusable applications ready for hybrid cloud.



A complete methodology to secure your project

Atos teams deliver a complete service catalog to accompany customers along their projects, from advisory services to implementation, tests and support.

The service catalog hinges upon a proven methodology, based on the agile practices, to ensure a perfect alignment of the solution with the customer usage cases. This methodology is pro-active, interactive and multi-steps to continually assess the compliance of the solution with the customer needs. This methodology is fully usage focus.

A catalog of components and blueprints, already certified by the Atos teams is at the disposal of the customer teams to accelerate the deployment phase and reduce the project costs.

Presentation and demonstration

Atos teams highlight the alien4cloud features, the service modeler, the component and blueprint principles, the user roles, the deployment capabilities on any Infrastructure and the flexibility of the self-service portal. The service catalog highlights how the Atos teams accompany the customer project.

Workshops

The methodology includes one or two workshops. The workshop session starts with a fine analysis of the customer needs. The Atos teams achieve a concrete usage case in line with the customer needs.

Pilot phase

The pilot phase may last up to 8 weeks. The objective is the evaluation of the solution in a real production case. The Sprint practices with the recurrent backlog analysis avoid any discrepancy with the use case.

Project roadmap

Roadmap is defined and validated. All usage topics are defined: topologies, components, blueprints, data and other specific parameters. The agile practices secure the project implementation with potential improvement recommendations along the project.

To get started: visit our website www.bull.com, contact one of our experts

About Atos & Bull

Atos SE (Societas Europaea) is a leader in digital services with pro forma annual revenue of circa € 12 billion and circa 100,000 employees in 72 countries. Serving a global client base, the Group provides Consulting & Systems Integration services, Managed Services & BPO, Cloud operations, Big Data & Cyber-security solutions, as well as transactional services through Worldline, the European leader in the payments and transactional services industry. With its deep technology expertise and industry knowledge, the Group works with clients across different business sectors: Defense, Financial Services, Health, Manufacturing, Media, Utilities, Public sector, Retail, Telecommunications, and Transportation.

Atos is focused on business technology that powers progress and helps organizations to create their firm of the future. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and is listed on the Euronext Paris market. Atos operates under the brands Atos, Atos Consulting, Atos Worldgrid, Bull, Canopy, Unify and Worldline.

For more information, [visit atos.net](http://www.atos.net)

Bull, the Atos technologies for the digital transformation

Bull is the Atos brand for its technology products and software, which are today distributed in over 50 countries worldwide. With a rich heritage of over 80 years of technological innovation, 2000 patents and a 700 strong R&D team supported by the Atos Scientific Community, it offers products and value-added software to assist clients in their digital transformation, specifically in the areas of Big Data and Cybersecurity.

Bull is the European leader in HPC and its products include bullx, the energy-efficient supercomputer; bullion, one of the most powerful x86 servers in the world developed to meet the challenges of Big Data; Evidian, the software security solutions for identity and access management; Trustway, the hardware security module and Hoox, the ultra-secure smartphone. Bull is part of Atos.

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