

Accelerating the Digital Transformation

With Atos alien4cloud and Cloudify

Atos Partners with Cloudify to Accelerate the Digital Transformation

GigaSpaces' Cloudify and Atos' alien4cloud build a comprehensive solution for a consistent approach to hybrid cloud enablement and DevOps in order to effectively support enterprises with their digital transformation of both their existing and new applications.

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alien4cloud, the integrated DevOps software suite

to allow a consistent DevOps approach

To bring maximum benefit to their enterprise customers, Atos wanted to bring a solution capable of accelerating and securing their digital transformation, with the capability of rapidly provisioning complete applications on diverse environments.

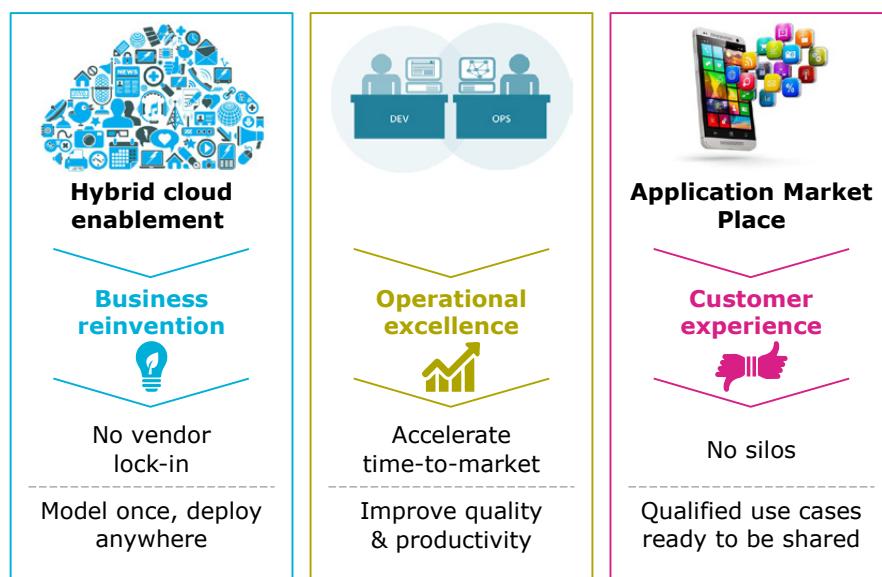
Alien4cloud (Application Lifecycle Enablement For Cloud) – was born from Atos' observation of challenges that confront their enterprise customers in the course of their digital transformation. Alien4cloud is an integrated software suite designed by Atos to accelerate application time-to-market, the alignment of IT and business, the preservation of existing application assets and the enablement of an enterprise application marketplace.

Alien4cloud provides a complete and agile application lifecycle, from design to development and deployment of applications on private, public and hybrid clouds, as well as on premise, in various environments. Alien4cloud relies on Cloudify to enable customer's freedom of choice for infrastructure as those needs vary and change in a dynamic enterprise environment. This enables applications to run on any environments with no impact on the applications themselves.

The solution optimizes the application lifecycle, while responding to the demand to preserve legacy applications within the digital transformation, and accelerates the move of these as well as modern application architectures onto hybrid clouds.

Alien4cloud provides a unique self-service portal to improve collaboration between developers, application managers and architects. This improves collaboration between all project stakeholders, to fully align IT and lines of business, to increase responsiveness and to overcome silo issues. IT departments regain control of IT resources and improve the overall IT ROI.

Alien4Cloud, the bimodal DevOps platform



The Enterprise Challenges

Atos saw the need for a solution to address the following four main challenges of their enterprise customers undergoing digital transformation:

Avoid Shadow IT

IT departments had grown alongside the enterprises they serviced, but this growth had the byproduct of creating a more cumbersome and slow to respond central IT. 'Shadow IT' arose as application development departments looked for ways to circumvent the traditional IT route, but Shadow IT brought new problems among them the loss of IT resource control and consequently uncontrollable costs.

Atos tackled this challenge by bringing a complete self-service capability to development teams. The move to self-service offers increased productivity and faster development opportunities, vital components to an accelerated innovation pace and successful digital transformation, while keeping IT departments in the loop to control IT resource usage, avoid infrastructure redundancy and in a more general way to keep an eye on the overall IT costs.

Create a Flexible Infrastructure

On the infrastructure level, Atos realized their enterprise customers needed support to overcome the challenge of transforming the traditionally rigid infrastructure of a non-digital organization into a flexible and scalable IT environment. This could be achieved by using modern orchestration deployed on top of physical servers of the type that a large enterprise would typically have in their data center, along with supporting the enterprise's need to leverage the scale and operational efficiencies of placing workloads on public cloud infrastructures such as AWS and Azure.

Break the Silos

Atos' enterprise customers required a method to break the silos between development and operations teams, which were largely two different parts of the organizations. It was important to improve collaboration between these silos and implement better governance capabilities. As IT enterprise leadership looks to move to DevOps, they realize the great challenge of transforming both from an organizational, as well as cultural, perspective, while on the operational side using new tools and engineering practices. Atos recognized this challenge as their next business opportunity.

Enable Highly Heterogeneous Environments

As the digital transformation process led organizations to look into the automation aspect of their DevOps practice, they discovered the challenge of interoperability within a highly heterogeneous IT environment, comprised of a combination of bare metal machines, VMWare VMs, and public cloud resources. Some enterprises attempted to automate their system by using custom ad hoc scripts, while others invested in adoption of configuration and integration tools such as Jenkins, CircleCI, or Ansible. Naturally, these custom approaches were neither totally scalable nor robust.

Cloudify as a selected product

Atos had a long-standing existing relationship with GigaSpaces, with Atos leveraging GigaSpaces' cloud solutions to support their customers over many years. Atos has been working with Cloudify, a GigaSpaces cloud offering, when Atos first recognized their customers' needs that required a complete solution to the challenges outlined above.

Atos needed a solution which was compatible with their own, alien4cloud, and that perfectly matched with their customers' varying infrastructure needs. Cloudify offered many of the features Atos sought, with values that aligned well with Atos' customers'.

Cloud Agnostic

Cloudify's position as a strong multi- and hybrid cloud enabler was a significant strength that complemented Atos' work to meet their enterprise customers' challenges. The agnostic approach permitted Cloudify to operate across public cloud, private cloud, on-premise VMware and more.

Cloudify creates a robust end-to-end layer which addresses Atos' customers' requirements to maintain consistent experience and seamless deployment of applications across disparate IT environments, and most important, ongoing support of existing legacy applications that are often overlooked or left behind in processes of digital transformation, while ironically are largely the leading business generators for enterprises.

Open Source, TOSCA-Based

It was very important to Atos to comply alien4cloud with TOSCA. TOSCA (Topology and Orchestration Specification for Cloud Applications) is an OASIS open standard that defines the interoperable description of services and applications hosted on the cloud and elsewhere.

Atos was able to add an organizational layer on top of the TOSCA-like technical features that Cloudify was already developing in order to leverage more TOSCA components for their clientele. In this way, Atos was able to utilize more TOSCA features to provide these four values for their customers – self-service, orchestration of operations and integration with tools, and automation of tasks.

Enable the Scale

Enterprises look for cloud solutions which can scale their cloud environments to meet demands. Leveraging Cloudify, alien4cloud triggers an event in Cloudify which, in turn, will take an action, such as reprovisioning a part of the infrastructure, reinstalling the middleware, and then joining it to the application cluster. This can be quite a complex process involving all of the network configurations. Alien4cloud's easily accessible scalability brings enterprises a high level of ROI, by preserving the customer's investment through one solution and one product with optimized resource and infrastructure management.

GigaSpaces' role as a partner delivering Cloudify to run behind the scenes of alien4cloud made this a complete solution for the Atos clientele, reducing time to market and supporting a scalable, automated enterprise cloud operations.

Side-by-Side Legacy and Modern Applications

In practice, many businesses will only slowly replace their apps, continuing to use old ones in the coming years alongside the adoption of modern applications.

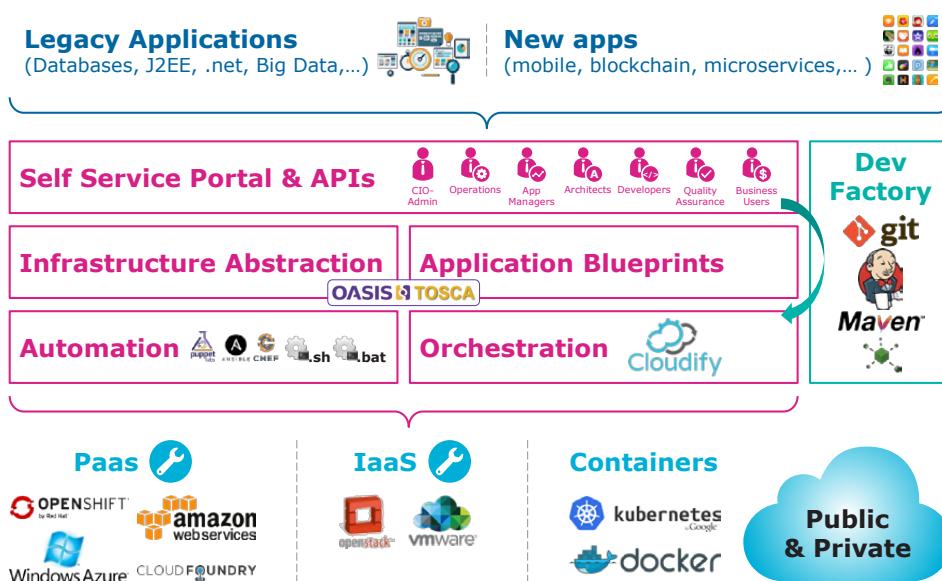
To support this, Cloudify enables resource orchestration across public and private cloud platforms, including AWS, Azure, Google, Openstack, and VMWare. It also has out-of-the-box integration with cloud native technologies such as Docker and Kubernetes. This allows orchestration of bare metal, VMs, and even containers, which means great flexibility running legacy and modern stacks side by side.

Inherent Automation and Integration

As alien4cloud's backend orchestration solution, Cloudify brought capabilities in complete application stack deployments to provide out-of-the-box integration with DevOps tools. For example, the above-mentioned native integration with Docker and Kubernetes allows users to easily schedule container provisioning.

In addition, Cloudify's highly flexible and configurable workflows empower alien4cloud to build custom workflows based on their customers' needs.

Deal with legacy and new apps and hybrid infrastructures



The 5 Key Benefits of alien4cloud with Cloudify

By integrating a self-service portal and more productivity tools on top of the features provided by Cloudify's cloud orchestration framework, Atos aimed to furnish their customers with a complete solution which addressed all of their main challenges.

1 Multi-Cloud Environment

Alien4cloud brings the unique capability of handling hybrid architecture. Most modern digital tools cannot support both legacy and new applications or handle multiple services and environments from different eras.

The fact that there is not a complete change between blueprints allows Atos' customers to deploy whole application stacks in any environment, such as Amazon cloud or their on-premises VMware, without the need to worry about the underlying infrastructure. This allows them to provision the same application across multi-cloud; a very important value today, as companies are looking to "break" their cloud vendor lock-in.

2 Enforcing Policies Across the Enterprise

Atos worked with Cloudify to easily replicate environments from one infrastructure to another for different use-case scenarios; either to help deploy the same app in different environments or to be able to handle the lifecycle of the app. For example, enterprises may wish to be able to deploy a development test, user acceptance, or pre-productions and to replicate it in different environments with different permission levels. By basing them on the TOSCA components in their self-service catalog, enterprises can replicate environments faster than before and keep consistency across the different deployments. For that to happen, alien4cloud helps in handling TOSCA standards and providing productivity tools to ease the definition of the TOSCA blueprint, while leveraging Cloudify to help in the deployment.



A Marketplace of Ready-Made TOSCA Blueprints

Alien4cloud supports enterprises in building a marketplace of TOSCA blueprints. By using TOSCA blueprints from within their own marketplace, enterprises can both run and replicate a whole stack quickly and easily. Every team within the organization can access the same blueprints immediately and deploy them proactively without needing to wait for an Ops team to build it for them. In this way, even non-technical, more business-oriented teams can provision a specific application. The outcome is increased efficiency, saving customers time and money by enabling them to create an infrastructure environment with a click, instead of the previous time-consuming and error-prone method of manual deployment.

Second Day Management

Enterprises which operate within a production environment are in particular need of continual upgrades, since it would be difficult for them to shut down and redeploy an app after its initial deployment. Alien4cloud comes prepared with all features and updates an enterprise needs in order to continue handling their applications after they have been deployed.

User Experience and Collaboration

Using alien4cloud, less technical business-oriented users enjoy a graphical and intuitive interface with a self-service portal. The online site also provides a method for alignment between all the stakeholders of a project. This is the ultimate objective of most enterprises; to ensure that all of their team members -developers, architects, the IT operations, etc.- work together and incorporate tasks together. Alien4cloud makes it easier for Dev and Ops teams to collaborate across the system by easing their interactions and supporting sharing of complete stacks between functions in the team.

A proven partnership already at work

Out of an existing business relationship, Atos and GigaSpaces partnered to integrate their tools into one complete end-to-end solution which assists enterprises through their digital transformation.

Also, a recent return of experience of a major customer project deployed by Atos with alien4cloud highlighted that this organization reduced project delivery time from 18 to 6 months while enjoying a concomitant improvement in production quality. Thanks to collaboration with Cloudify, alien4cloud presided over a major reduction in the number of incidents observed and are now close to zero anomalies in production.

Alien4cloud with Cloudify is now a proven solution, already supporting large-scale enterprise project. Alien4cloud with Cloudify offers a unique DevOps solution to the market, ready to be used in diverse modern enterprise IT environments.

“We are pioneers in this field. No one in the industry is providing a similar solution at the same level in the enterprise. Alien4cloud also offers enterprises the flexibility to shift smoothly to the best deployment location at any time, be it public, private or hybrid, without additional investment. Alien4cloud paves the way to easy collaboration between development and deployment teams throughout the application lifecycle.”

Gauvain Girault,
Head of alien4cloud engineering at Atos

“DevOps is not a goal of its own, it is a means to an end. The goal is to be able to release new features, services and applications faster. To do so we have to break up all the friction by automating the entire process. Cloudify together with alien4cloud has built a joint-solution that simplifies this kind of digital transformation significantly, by enabling organizations to optimize their existing applications first, while gradually moving to new applications.”

Nati Shalom,
CTO and Founder, Cloudify



About Atos

Atos is a global leader in digital transformation with approximately 100,000 employees in 72 countries and annual revenue of around € 12 billion. The European number one in Big Data, Cybersecurity, High Performance Computing and Digital Workplace, The Group provides Cloud services, Infrastructure & Data Management, Business & Platform solutions, as well as transactional services through Worldline, the European leader in the payment industry. With its cutting-edge technologies, digital expertise and industry knowledge, Atos supports the digital transformation of its clients across various business sectors: Defense, Financial Services, Health, Manufacturing, Media, Energy & Utilities, Public sector, Retail, Telecommunications and Transportation. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Consulting, Atos Worldgrid, Bull, Canopy, Unify and Worldline. Atos SE (Societas Europaea) is listed on the CAC40 Paris stock index.

Find out more about us

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Let's start a discussion together



About Cloudify

Cloudify is an orchestration-first cloud management platform that is open source and based on the TOSCA standard, that specializes in IT operations technology that automates and manages application and network services. Service providers and enterprises worldwide—including top financial firms, e-commerce companies, biotech and telecom carriers—use Cloudify to enhance IT efficiency and performance at web scale. Cloudify increases the velocity and reliability of software deployment, lifecycle management and network functions in cloud-native environments. Cloudify, formerly a business unit of GigaSpaces, has offices in the US, Europe and Asia.