



# Cloud Automation and PaaS Services

Reduce system administrators' efforts by up to 90%

*"Joyent claims it has the highest-performance hosted Hadoop offering, citing a study by Altoros Systems showing that its Hadoop clusters had nearly a three times faster disk input/output speed compared to similarly-sized infrastructure, while being one-third the price."*

## NETWORKWORLD

*"As measured by the software product development services company Altoros Systems, the following results were gleaned:*

- ✓ *Hadoop clusters on Joyent Cloud produced a nearly 3X faster disk I/O response time versus identically-sized infrastructure*
- ✓ *Or, the solution allows companies to cut their infrastructure costs by two-thirds with the same response time."*



## Increase Productivity of Your Resources with Cloud-based Solutions and Multi-cloud Automation 24/7

In many cases, traditional enterprise infrastructures lack flexibility and scalability, which are crucial for surviving in today's competitive market. Calls for improved efficiency, increased agility, and faster time-to-market urge enterprises to move to cloud environments. While some companies just start analyzing possible virtualization options, others already need integration and uniform control over their heterogeneous cloud-based systems.

Wherever you are in the process of cloud adoption, Altoros will help you to achieve your business goals faster through automating multi-cloud infrastructure management, integrating clouds with your internal systems, accelerating your cloud development processes with Platform-as-a-Service, or implementing other cloud-based solutions to foster your efficiency.

### Cloud automation

These services may help you to utilize your resources—both human and computing—more efficiently, reducing DevOps efforts by up to 90%. You can monitor resource utilization from a single dashboard, minimize maintenance time, simplify cloud deployment procedures, auto-scale, schedule backups, provide high availability, recover a system after a failure automatically, cut infrastructure costs, etc.

### Big data in the cloud

Altoros has extensive experience in implementing and integrating big data solutions that convert raw data into valuable business insights. You will be able to speed up data processing through Hadoop-based parallel computations, benefit from extremely fast NoSQL/NewSQL stores, auto-scale your data-intensive apps, as well as reduce TCO by automating deployment, performance monitoring, etc.

### Platform-as-a-Service

If you deliver apps for the cloud, PaaS solutions will help you to simplify deployment and development cycles. The platform will steeply reduce time-to-market and time-to-revenue through automated building, testing, deployment, scaling, as well as providing continuous integration, container management, etc.

### Managed services 24/7

Our managed services will help you to reach high availability of your infrastructure and guarantee that you will get around-the-clock DevOps assistance. Relying on Altoros's strong expertise across different public/private IaaS providers, cloud technologies, and PaaS platforms, you can focus on your core business activities. Get engaged with our 250+ team across 10 locations in Europe and Americas.

“Altoros helped Elim Biopharm explore the benefits of Amazon Web Services to automate analysis of DNA sequencing data and design a disaster recovery plan.”

**Yilin Zhang**  
Elim Biopharmaceuticals, Inc.



Altoros is a system integrator responsible for:

- ✓ majority of Windows and Linux multi-cloud templates for RightScale,
- ✓ the most mature Charms for Canonical,
- ✓ Hadoop-as-a-Service for Joyent,
- ✓ database migrator for Nuodb,
- ✓ Cloud Foundry-as-a-Service for Nephoscale, etc.



## 1. Cloud Automation

System administrators perform plenty of routine and time-consuming operations day by day to ensure proper operation of your cloud-based services and apps. Cloud automation may help you to utilize your resources—both human and computing—more efficiently, reducing system administrators' efforts by up to 90%.

### Simplified cloud management

Being a technology partner of RightScale, Altoros possesses supreme knowledge in automating cloud management across top public/private IaaS providers. Set up and tune virtualized environments with a few mouse clicks using Server Templates, monitor hundreds of applications built on multi-cloud infrastructures, and track resource utilization from a single dashboard.

### Automated backups and recovery

You can schedule automated system backups to protect your data from accidental losses. In addition, cross-region and multi-cloud data replication can be tuned to ensure the highest possible level of data consistency and availability. In case of a system failure or Internet connection loss, the system will re-balance the load and restore its operation automatically, without impairing data consistency.

### How we do it

Cloud management platforms:

*RightScale, Scalr, Enstratus, etc.*

### Auto-scaling

With automated cloud services, applications scale in/out when the load increases or drops. You will not have to overpay for resources you do not need, nor manually track app resource utilization. No reserved resource should be kept for future if you do not need it. When resources are not used by one app, they can be provided to another app.

### Hybrid cloud deployments

If the security policies of your company do not allow you to store data in public clouds, you can still leverage the benefits of the cloud. Store sensitive data locally and process other information in the cloud. Choose the best combination of private/hybrid/public clouds or use capabilities of different cloud platforms to meet your computation demands.

Deployment tools:

*Chef, Puppet, Canonical's Juju, Crowbar, BOSH, PowerShell, AWS CloudFormation, Bash, etc.*

## 2. Platform-as-a-Service (PaaS) Enablement

*“In the development of CloudPaaS, NephoScale chose to partner with Altoros, a leading Cloud Foundry systems integrator and consulting firm. NephoScale’s CloudPaaS will be one of the industry’s first fully managed, 24/7 supported, SLA-backed private PaaS offerings based on Cloud Foundry 2.0.”*

**Bruce Templeton, CEO of NephoScale**



Platform-as-a-Service is not merely a technology that addresses just one of your needs. It is a fundamentally different approach to developing cloud-oriented solutions, which results in faster delivery and time-to-revenue.

You can minimize routine DevOps processes, develop / test apps in an environment close to the production one, and deploy them to any cloud in seconds. In addition, you will be able to arrange thousands of servers and applications in a single pool of resources and control them from a user-friendly dashboard.

Altoros has extensive expertise in deploying and configuring Cloud Foundry-based PaaS systems for IaaS providers and enterprise-grade customers (Warner Music, Canonical, NephoScale, etc.). The company is also one of the top contributors to the open source Cloud Foundry PaaS ecosystem and a partner of Pivotal and ActiveState.

### Automation of software development cycles

You will be able to create production, staging, testing, and training environments with a couple of clicks. Shorten your software development cycles from months to days and speed up all formal procedures while preserving correspondence to your security policies.

### Continuous integration and deployment

From now, apps can be deployed to the production environment more often, faster, and without a fear that it will negatively affect your releases. When a new feature is added, the system will make a new build and if it fails, you will roll back to the stable release.

### Multi-cloud deployments

You are not limited to capabilities of a single cloud provider. Push your app to any of the supported OS or IaaS. In addition, you will be able to move your applications easily from one cloud to another without extra code modification.

### Container management

Cloud Foundry and Stackato allow for placing each app instance in a separate container (Warden or Docker) to ensure that apps use dedicated resources.

### Partners:

**Pivotal**™

**ActiveState**  
Code to Cloud: Smarter, Safer, Faster™

*Intel used to spend 1–6 months to provide compliance with company’s security policies and regulations on the development / staging / testing / production process. With implementation of Cloud Foundry, the company became able to develop a simple application and put it to the production environment within a single day.*

### 3. Big Data in the Cloud

*"While already operating at capacity, we turned to Altoros to take on the development of these critical customer tools. They offered their skills in every aspect of the project, from administration to design and development. The end product is a set of open source tools that are uniquely flexible, and elegantly simple in solving a set of complex problems for our customers. We are indeed quite pleased with the partnership we've built with Altoros."*

**Paul Lothridge,**  
Director of Program Management



Today, many organizations have to deal with ever-growing unstructured data, which is difficult to analyze and rather expensive to store. Traditional IT infrastructures may fail to address complexity of such data volumes, as well as become a performance bottleneck. Altoros has strong expertise in implementing and integrating big data solutions that convert raw data into valuable business insights. You will be able to speed up data processing through parallel computations, benefit from extremely fast NoSQL/NewSQL stores, auto-scale your apps, as well as reduce TCO by automating deployment, administration, and performance monitoring.

#### Integrated parallel computing

To cope with big data, companies implement Hadoop clusters, processing large data sets in parallel. However, Hadoop is often used aside of a corporate software infrastructure. Altoros can integrate your DB, report building solutions, etc. with a Hadoop cluster to provide a smooth data flow inside a single platform.

#### Hadoop-as-a-Service

If you work with Hadoop clusters on a regular basis, you probably configure them from scratch each time. Having built an on-demand Hadoop service, you can access it with a couple of clicks without caring about configuration and tuning routines.

#### Data migration

As a company that implemented dozens of data migration projects and tools (such as a migrator for NuoDB), Altoros gained solid knowledge to move your data between NoSQL, NewSQL, or SQL stores and other structured/unstructured sources.

#### Data analytics and BI solutions

Our data scientists will help you to store, process, and visualize large volumes of data generated at high velocity. Millions of unstructured records can be converted into valuable patterns and insights with clearly established relations.

#### Database-as-a-Service

Configuring a database instance may be challenging, especially when data replication, recovery, or backup processes are not fully automated. Altoros's engineers will help you to set up an on-demand SQL/NoSQL database service for your engineers.

#### Technology benchmarking

Altoros provides vendor-independent benchmarking of cloud, NoSQL / NewSQL, and distributed computing technologies to help you fine-tune your big data projects for specific use cases. Our hands-on expertise across various big data solutions helped Joyent, Couchbase, and others offer the fastest solutions on the market.

#### Recognition



In 2014, Altoros was recognized as one of top big data and Hadoop consultant (in a study by SourcingLine, a Washington, DC-based research company).

*24/7/365 support, all day and night, with no breaks for holidays or celebrations*

**Featured customers:**

**SONY**

**RIGHT SCALE**



warner | music | group



**CANONICAL**

## 4. Managed Services 24/7

It is not a rare case when a system fails because of the excess load or limited computing resources. While you are working on identifying an issue and fixing it, your customers and employers cannot access your services and applications. It results in decreased customer loyalty, growing churn rates, and reduced revenues. Altoros's managed services will help you to reach high availability of your infrastructure and guarantee that you will get professional around-the-clock assistance.

### High availability

Automated monitoring solution will keep track of your system's state to detect any possible hazards in advance. With managed services, your computing resources will never end unexpectedly.

### 24/7/365 cloud support

Even the most automated systems may fail. Our DevOps engineers have proven expertise across different public/private IaaS providers and cloud tools (Chef, Puppet, etc.). You will get this around-the-clock support to bring your system back to normal operation in any time.

### Why Altoros

✓ Extensive experience across various cloud technologies, platforms, and tools (RightScale, Scalr, Enstratus, Chef, Puppet, Juju, BOSH, etc.), as well as PaaS environments (Cloud Foundry, Stackato, BlueMix, etc.)

✓ A 250+ strong, full-time team across 10 locations in Europe and Americas

✓ A technology partner in development of integration solutions for such companies as RightScale, Canonical, Joyent, Couchbase, etc.

### Automated disaster recovery

In case of a failure, load will be distributed among available nodes and a backup instance will provide availability of your services. Infrastructure issues will no longer affect operation of your business.

### Managed PaaS

As an active contributor to the Cloud Foundry PaaS and a partner of Pivotal and ActiveState, Altoros has first-hand experience in configuring and customizing Cloud Foundry-based environments, such as Stackato, BlueMix, Pivotal CF, etc. Hundreds of developers are using PaaS deployments delivered by Altoros's infrastructure engineers.

✓ Strong expertise in deployment and performance optimization of large clusters. The largest cluster consisted of 400+ nodes; on average, clusters of our customers include 20 nodes.

✓ 10+ years in IT with 500+ successful projects and mature development / QA processes

✓ Close collaboration with Pivotal, ActiveState, and other companies of the Cloud Foundry PaaS ecosystem

Want to increase productivity of your resources with cloud-based solutions and multi-cloud automation 24/7? Contact our [global offices](#).