

intellias

Case Study

Cloud Accelerator for Microservice Solutions and Efficient Production Environment

We've created a leading-edge cloud accelerator technology that orchestrates the deployment of hyper-scale microservices on Azure

www.intellias.com

Main information:

Industries:

Cross industry solution

Project duration:

January 2019 – April 2020

Market:

Global

Technologies:

Azure DevOps / Azure Functions /
Azure Search / Azure Service Bus
/ Azure Storage / C# / Cosmo DB /
GraphQL

Team size:

12 engineers

Key features:



Speed up the
development of
cloud microservices
solutions



Save costs on
infrastructure,
production, and cloud
resources



Ensure
automatic
scaling to handle
peak loads

Business challenge

Intellias has successfully launched the Intellias CQRS Framework, an award-winning cloud orchestration platform and the industry's first cloud-native serverless technology for building event-driven microservices on Azure at a massive scale. Our unique architectural framework serves as a cloud accelerator for companies looking to develop their microservice solutions fast and efficiently.

While Microsoft Azure has become the fastest-growing cloud provider, the cloud industry was missing comprehensive accelerators for cloud-native solutions that bring under one roof all necessary components for building microservices in Azure Cloud. To fill this technology void, we mobilized our cloud development expertise to create an open source, cloud-native, and completely serverless framework that can be customized for a variety of domains.

The idea of cloud accelerator development came as an initiative of our experts to build a flexible deployment ecosystem that would enable agile and efficient product implementation and ensure significant cost savings on infrastructure, production, and cloud resources. Our vision to empower businesses worldwide with an accelerator for microservices application development prompted us to make the Intellias CQRS Framework open source and available under the MIT License.

After months of in-depth research into user needs, complex implementation, and vigorous testing, our cloud platform development accelerator has been released and has already been used to fuel projects for Intellias clients across Europe and the Middle East.

Solution delivered

The Intellias CQRS Framework is a cloud-native microservices enabling technology that speeds up the deployment of massive-scale distributed systems in the Azure Cloud environment. It offers a high-tech reference architecture for complex microservices applications, enabling software delivery teams to cut their production time and develop high-quality solutions quickly, consistently, and on budget.

Out of other available accelerators for cloud native development, our framework is unique in that it's entirely serverless and is built without any relational databases or IaaS components. Based on the CQRS and Event Sourcing architectural patterns, our cloud accelerator allows for a non-stop record of all system changes, reducing service latency at any data scale and enabling system recovery without any data losses.

The Intellias CQRS Framework is based on the Commands, Events, and Query model that is extremely business-oriented and suitable for efficient problem-solving. Our cloud platform development accelerator adds value to businesses by offering the following benefits:

- **Fast speed to market**

The Intellias CQRS Framework offers ready-made and proven solutions for companies working with Azure. It accelerates the implementation of complex systems and speeds up the time to market for microservice products, saving companies 30% in investments and up to 50% of development time.

- **No server management**

One of our framework's key differentiators is that no servers or virtual machines are needed, which helps to save infrastructure costs. Instead, all cloud components are created and managed automatically by the framework.

- **Cost-effective microservices architecture**

All components are either software-as-a-service or function-as-a-service and are billed according to the selected consumption plan. Unlike with traditional monolithic architectures, the cost of cloud services depends on the load, so customers pay only for the compute they need.

- **Rapid automatic scaling**

It takes only 15 seconds for the system to scale up resources for handling peak loads. The maximum capacity is 500 TB and the framework's performance enables processing 4 billion requests per second.

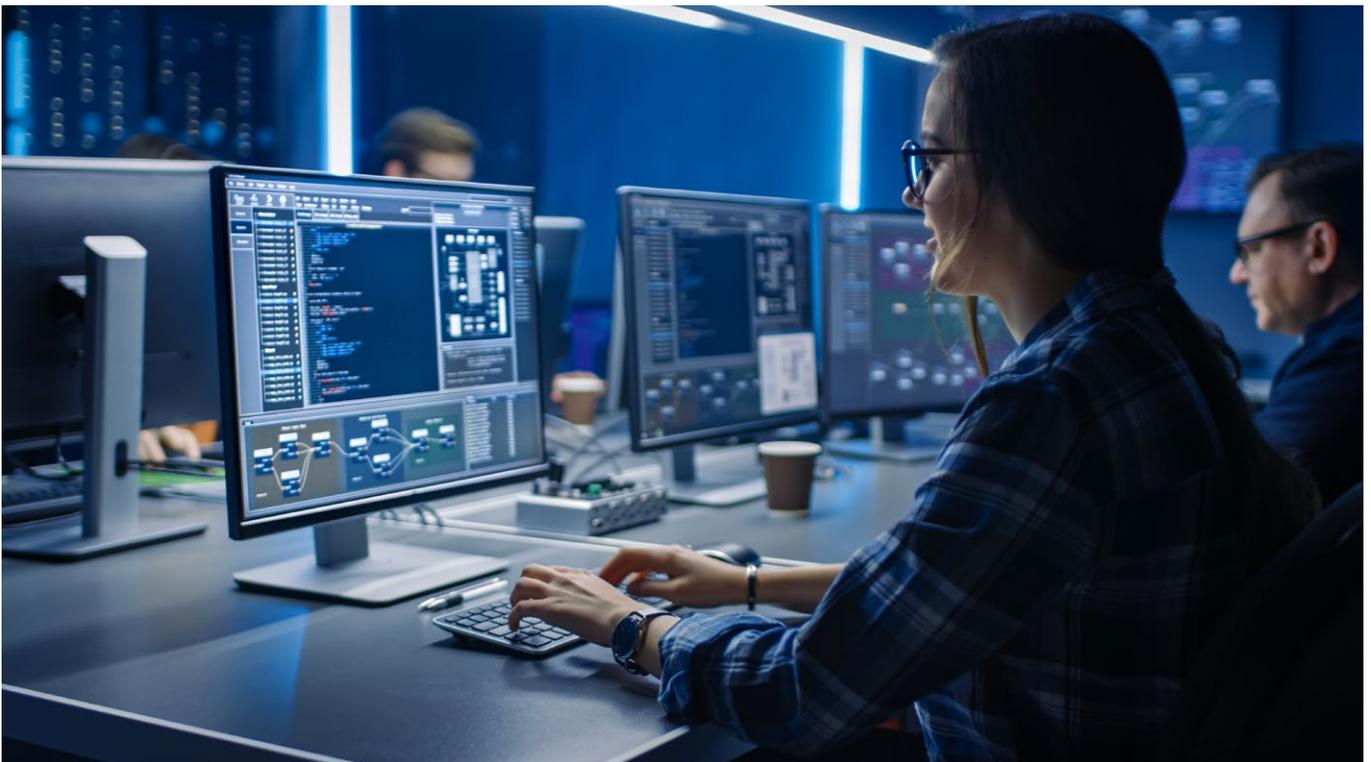
- **Zero data loss powered by built-in audit capabilities**

Our framework features an automatic audit trail that records all changes so no data is lost. In case of an error or critical failure, the system recovers all events from the Event Store.

- **Separate databases for read and write operations**

The division of the database into two separate storages helps to optimize the system for reading and writing and enables adaptation to asymmetric loads when read and write traffic is not equal.

Our accelerator for microservice solutions is available as [open source code](#) and can be used by Intellias clients.



Business outcome

The launch of our accelerator for microservices application development marks a significant milestone for tech companies worldwide looking to get a head start on the competition by speeding their cloud solutions to market. The Intellias CQRS Framework allows cloud engineers working on complex microservice architectures to implement core business logic while minimizing resource spending. Its flexible scalability and high performance make it a powerful platform for building cloud applications quickly and eliminating the expense of the infrastructure.

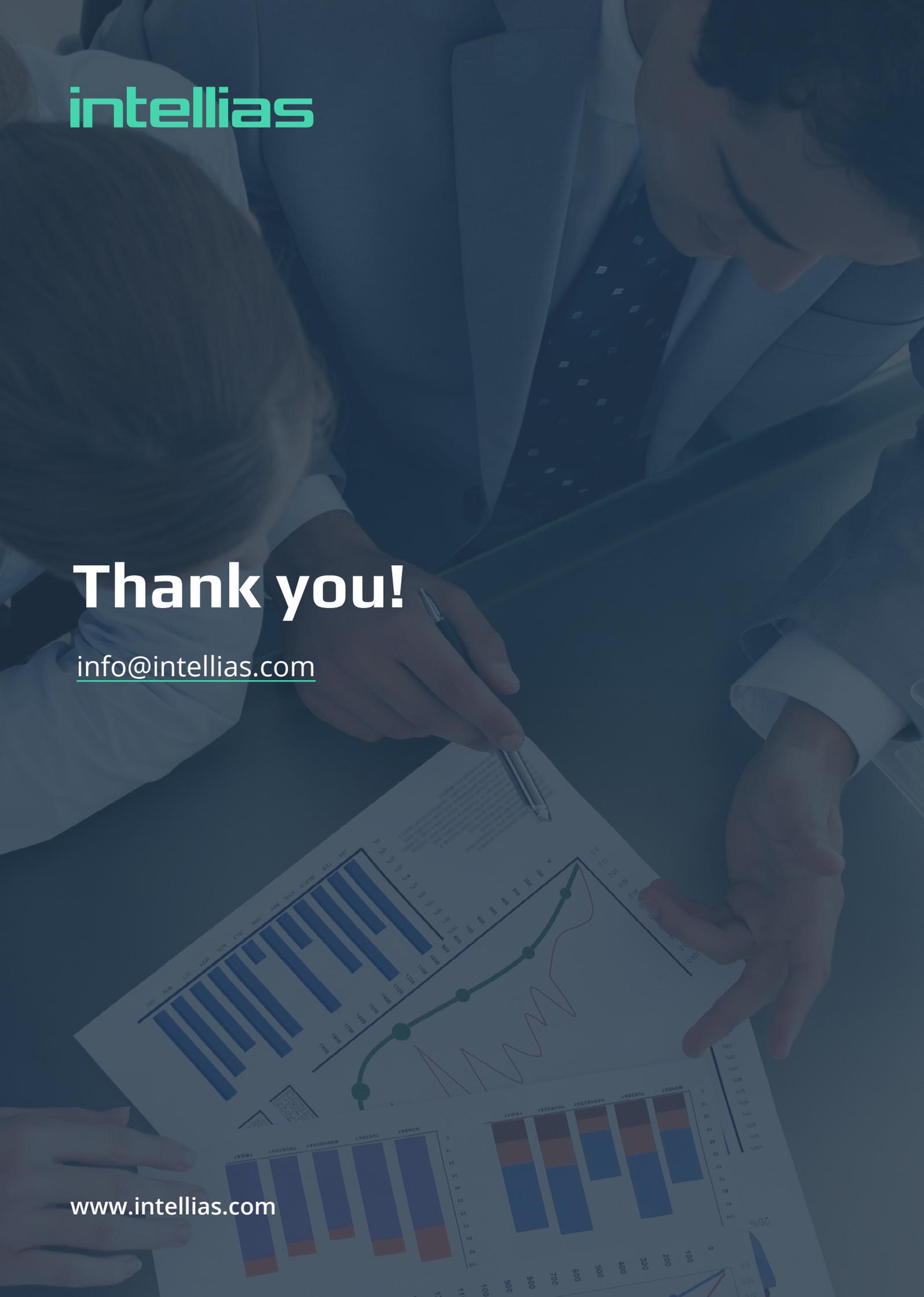
Our cloud platform development accelerator proves particularly beneficial for companies in the FinTech and healthcare industries, where an airtight audit trail is beyond critical – even a few seconds of lost data may mean huge financial losses or even a lost human life. Our product's ability to trace back changes and restore all data is a game-changer for many data-driven organizations.

Specifically, Intellias business partners, a Dubai-based digital bank and a German provider of world-class logistics software, became early adopters of our new technology. It has allowed them to quickly gain a competitive edge over their peers and roll out quality products almost twice as fast as originally planned. In addition to saving several months of development time, our accelerator helps our clients to cut infrastructure expenses by 80% and avoid multiple technical risks associated with onboarding new Azure technologies.

Today, our cloud accelerator enables tangible infrastructure cost optimization for the UAE bank amounting to 64K USD monthly, i.e. hundreds of thousands of dollars per year. The logistics software provider uses their innovative SaaS solutions built on our framework to shift to a new service model opening access to a small to medium-sized market. Having gained over 5,000 new customers within a short period of time, the company helps businesses achieve up to 17% in annual cost savings and process 45 million requests daily with their CQRS-based software components.

The Intellias CQRS Framework has also become the cornerstone of developing Intellias internal corporate systems for managing mission-critical business processes. IntelliGrowth, a collaborative talent management platform is among our latest developments. Its flexible serverless architecture allows us to quickly create high-performing services that live up to users' needs and expectations. This has resulted in much higher satisfaction among employees in their career assessments than what our previous talent management platform provided.

Our [case study](#) on the CQRS Framework gives a detailed account of our team's journey from ideation to implementation.

A top-down view of three business professionals in a meeting, looking at a document with various charts. The image is overlaid with a dark blue tint. The charts include a bar chart with blue bars, a line graph with a green line and red scribbles, and a stacked bar chart with blue and red segments. The text 'intellias' is in the top left, 'Thank you!' is in the center, 'info@intellias.com' is below it, and 'www.intellias.com' is in the bottom left.

intellias

Thank you!

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