Beyondsoft Cloud Application Modernization

Beyondsoft offers a transformation program designed to empower organizations to modernize legacy applications, and migrate to open and cloud-native standards. Through a consultative approach, strategic solution re-architecture, and planned migration, this program helps teams innovate, optimize operational costs, and achieve measurable results fully aligned with the organization's specific needs.

What is Application Modernization?

Cloud Application Modernization is a specialized offering designed to help organizations accelerate their digital transformation by modernizing critical applications and reducing reliance on proprietary cloud services. The program focuses on equipping teams with industry best practices, expert guidance, and continuous support for application modernization and migration, fully aligned with the specific needs of the organization.

Our services cover the complete modernization lifecycle, from ideation to production deployment, using technologies such as Kubernetes and open-source databases in PaaS format. The approach integrates an in-depth analysis of the current architecture, redesign to open standards, refactoring of critical components, and secure migration of data and applications to the new environment.

What services are included?

After an initial alignment to understand your organization's needs and priorities, the following services and solutions are delivered to support your transformation:

- **Application Assessment and Diagnosis**

  The first stage consists of an in-depth analysis of the current application architecture to identify areas tightly coupled with proprietary services and opportunities for modernization. In this phase, we conduct a detailed mapping of dependencies, data flows, and integrations between application modules, enabling the definition of a modernization and migration strategy tailored to your business needs. This diagnosis is essential to understand the underlying business logic and identify the risks associated with migration.

- **Application Re-Architecture and Refactoring**

  Based on the assessment performed, we redesign the solution to open and cloud-native standards such as Kubernetes, DAPR, and others. This includes, for example, replacing Lambda with Kubernetes, proprietary messaging services (such as SQS/SNS) with agnostic

solutions such as Azure Service Bus or RabbitMQ, ensuring application portability across different cloud providers.

During this phase, we also convert and optimize application modules to more efficient and higher-performing languages, such as Go, when appropriate. This optimization is particularly important for applications that process large volumes of data or messages, where even small performance gains result in significant resource savings and operational cost reductions.

Additionally, we incorporate observability and monitoring layers to ensure the health, performance, and reliability of the application in production. Many legacy applications lack adequate monitoring mechanisms, which makes it difficult to detect issues and drive continuous optimization.

- **Data and Application Migration**

Data and application migration is executed in a planned and secure manner, minimizing operational impact. For applications that process millions of transactions weekly, any delay or operational impact is critical; therefore, the migration strategy is carefully planned and validated.

In this phase, we migrate large volumes of data from relational and object databases to modern storage solutions in Azure, such as Azure MySQL, Azure PostgreSQL, Azure Data Lake, and MongoDB. Application migration to the new cloud environment is carried out while ensuring business continuity, using strategies such as blue-green deployment or canary releases, when appropriate.

We conduct rigorous testing at every stage of the migration to ensure data integrity, application functionality, and compliance with business and regulatory requirements.

Results Demonstration and Metrics

At the end of the program, we present comprehensive metrics and reports on application performance and business impact, including reductions in operational costs, improvements in performance and scalability, and increased reliability and observability of the solution. We also share best practices and lessons learned to inspire adoption in other areas of the organization.

How does the program work?

The program follows a structured methodology with well-defined phases, ensuring value delivery at every stage:

Initial Alignment: We understand your organization's needs, define the priority areas for modernization and migration, and establish the objectives and success metrics of the program.

Assessment and Planning: We conduct a detailed assessment of the application and current environment, analyzing architecture, dependencies, risks, and optimization opportunities. Based on this assessment, we define a detailed modernization and migration plan, including timeline,

required resources, and cost estimates. We use proprietary tools to identify correlation and dependencies among workloads.

Modernization and Migration Execution: We execute the re-architecture, refactoring, and migration plan for the application and data, following best practices in software engineering and cloud operations. During this phase, we maintain constant communication with the organization's teams, ensuring alignment and knowledge transfer.

Validation and Go-Live: We perform end-to-end testing and validate the solution in the new environment before going live. This includes performance, security, compliance, and functionality testing. After validation, we execute the application go-live, closely monitoring performance and stability during the initial days in production.

Results Demonstration: We present the metrics, outcomes, and success stories achieved through application modernization, demonstrating the value delivered and opportunities for future improvements.

What benefits does the offering provide?

The Application Modernization program delivers a series of tangible and measurable benefits to the organization:

Cost Reduction: Optimization of resource consumption, elimination of licensing costs for proprietary services, and improvement in operational efficiency result in significant savings. Modernized applications, especially those processing large data volumes, can reduce operational costs by up to 40–50% through performance optimization and waste elimination.

Improved Performance and Efficiency: Modernized applications are faster and more efficient, with better resource usage and lower latency. For critical applications processing millions of transactions weekly, this performance improvement is essential for business competitiveness.

Scalability and Resilience: Solutions redesigned to cloud-native standards such as Kubernetes are ready to scale according to business demand, with the resilience and availability provided by modern cloud environments.

Greater Observability: Full visibility into the health, performance, and behavior of your applications in production, enabling proactive problem detection and continuous optimization.

Knowledge and Enablement: The organization's teams gain deep knowledge of best practices for modernization, migration, and cloud application operations, enabling them to lead future transformation initiatives.

Additional Details

The program is flexible and tailored to the needs of each organization, with all terms, conditions, scope, and pricing customized for each client and subject to acceptance prior to initiation. Beyondsoft works in partnership with the organization to ensure modernization success, aligning with business objectives and existing operational constraints.