

# The Ingres NeXt Initiative

Database and Application Modernization Your Way

Digital transformation is fundamentally changing how organizations operate and deliver value to their customers. For many, moving mission-critical databases and applications to the cloud is an untapped opportunity that can significantly improve business agility, sustainability, scalability, the user experience, business continuity, staff productivity, innovation, and much more.

However, most organizations struggle with modernization efforts. Complex dependencies with applications, data infrastructure, operating systems and hardware can make modernization risky. Replacing thousands of hours of custom-developed business logic is a long journey that is expensive and takes extensive planning to prevent disruption of mission-critical operations.

Ingres NeXt is a strategy to support your modernization journey with a phased approach to achieve incremental milestones. This helps Ingres database, Actian X, and OpenROAD customers both accelerate and de-risk modernization. Ingres NeXt uses existing migration, performance, and load testing utilities to make moving to the cloud safer and more predictable.

You get the flexibility to modernize on your terms, staying on-premises and/or making the journey to the cloud as it makes sense for your business. Our modernization approach minimizes risk, protects business logic, lowers costs, reduces time and effort, and minimizes business disruption.

## Database Modernization

The Ingres NeXt initiative provides your business with flexible options for running the Ingres database or Actian X on Google Cloud, Microsoft Azure, and Amazon Web Services (AWS), while continuing to run on-premises. All deployment options offer the same capabilities and ensure strong security and compliance.



### Low-Risk, Predictable Migration

- 100% cloud compatibility with on-premises deployment
- Reuse of existing application business logic
- Migration and realistic performance and load testing tools
- Business continuity with cloud backup and disaster recovery
- Strong security and compliance with features such as advanced user access controls, dynamic data masking, column-level encryption, and security auditing
- Ingres NeXt Readiness Assessment for modernization strategy, planning, and implementation assistance

## On-going Reliability With On-premises

Some enterprise workloads are sensitive to compliance requirements and are too complex or too expensive to move to the public cloud. Actian will continue to develop and fully support the Ingres database and Actian X on on-premises hardware, including modern platforms such as Linux and Windows, as well as traditional platforms whether virtualized or bare metal.

<b>On-premises</b>	<ul style="list-style-type: none"> <li>Linux, Windows, UNIX, and VMS support</li> <li>Simplified cloud deployment or virtual machine (VM) implementation</li> <li>Your choice of cloud service providers: AWS, Google Cloud, and Microsoft Azure</li> </ul>
<b>Bring Your Own License (BYOL)</b>	<ul style="list-style-type: none"> <li>Deploy via Helm charts in Docker containers with Kubernetes orchestration (GKS, AKS, EKS)</li> <li>Same on-premises capabilities</li> <li>Cloud backup and disaster recovery</li> </ul>

## Bring Your Own License (BYOL)

The Actian customer hosts and manages BYOL deployments and has the flexibility to move existing licenses to the cloud or purchase additional ones. The Ingres database and Actian X are available as a virtual machine deployment for fast migration as well as a Docker container to rapidly realize value from cloud scale and elasticity.

The Ingres NeXt Initiative includes Kubernetes management and Helm Charts for easy and consistent deployment. Docker/ Kubernetes/Helm Charts simplify Ingres database or Actian X deployment and provide a high degree of portability between public cloud platforms and your private cloud and virtualized environments. Cloud backup and disaster recovery makes it possible to flexibly recover from service disruptions, accidental data deletion or data corruption.

## Application Modernization

Application modernization is strategic because it enables organizations to stay competitive, responsive, and efficient in an ever-evolving digital landscape. By modernizing applications, businesses can streamline processes, improve user experiences, enhance interoperability, and reduce maintenance costs, positioning themselves to adapt swiftly to market shifts and gain a competitive edge in the dynamic business environment.

OpenROAD delivers flexible application modernization as shown in Figure 2.

Figure 1. Ingres NeXt Journey – Your Way with Flexible Deployment

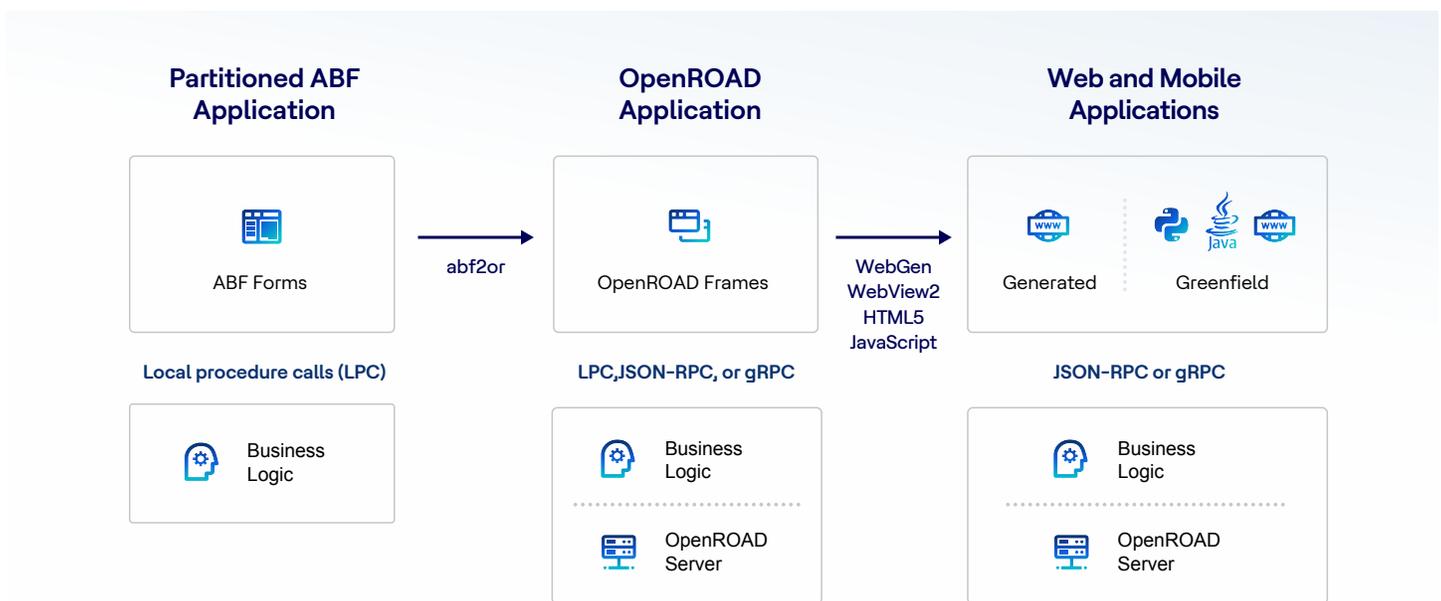


Figure 2. Database-centered application development with OpenROAD

## Migrate ABF and Forms-Based Apps to OpenROAD

OpenROAD includes migration tools that allow you to modernize "green screen" Ingres database or Actian X Application By Forms (ABF) applications into OpenROAD, mobile, and browser-based applications by converting them into OpenROAD frames, as shown in Figure 3.

## Modernize Existing OpenROAD Applications

You can transform encapsulated OpenROAD applications to browser-based equivalents without the cost, resource, effort, and risk associated with rewriting or replacing code. Developers can then extend these applications for web and mobile deployment, using HTML5 and JavaScript. Furthermore, OpenROAD supports modernized applications running alongside unconverted ones.



Get the flexibility to modernize on your terms, staying on-premises and/or making the journey to the cloud as it makes sense for your business.

<b>ABF and Forms-Based Applications</b>	<ul style="list-style-type: none"><li>• Modernize ABF applications to OpenROAD frames using the abf2or migration utility</li><li>• Extend converted applications to mobile and web applications</li></ul>
<b>OpenROAD and Workbench IDE</b>	<ul style="list-style-type: none"><li>• Migrate partitioned ABF applications to OpenROAD frames</li></ul>
<b>OpenROAD Server</b>	<ul style="list-style-type: none"><li>• Deploy applications securely in the OpenROAD Server</li><li>• Retain and use application business logic</li><li>• Leverage cloud option for portability, scalability, and communication between distributed systems</li></ul>

## Preserve and Deploy Core Business Logic Using the OpenROAD Server

The OpenROAD Server provides a secure source code repository, equips you to build and deploy robust business logic, and supports n-tiered OpenROAD applications that are easily shared with popular programming environments and languages such as .NET, Java, and many others. This flexibility to reuse existing business logic avoids costly rewrites of business logic and allows you to deploy existing application business logic using the OpenROAD Server. Web applications written in HTML5/JavaScript can connect to the OpenROAD Server via JSON-RPC + COM with no additional libraries, plugins, or add-ons.

Deploying OpenROAD Server in the cloud allows portability and scalability of application business logic. OpenROAD Server facilitates communication between distributed systems, improves performance, and offers compatibility with microservices and containers.

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Figure 3. Flexible Options to Modernize Your OpenROAD Applications

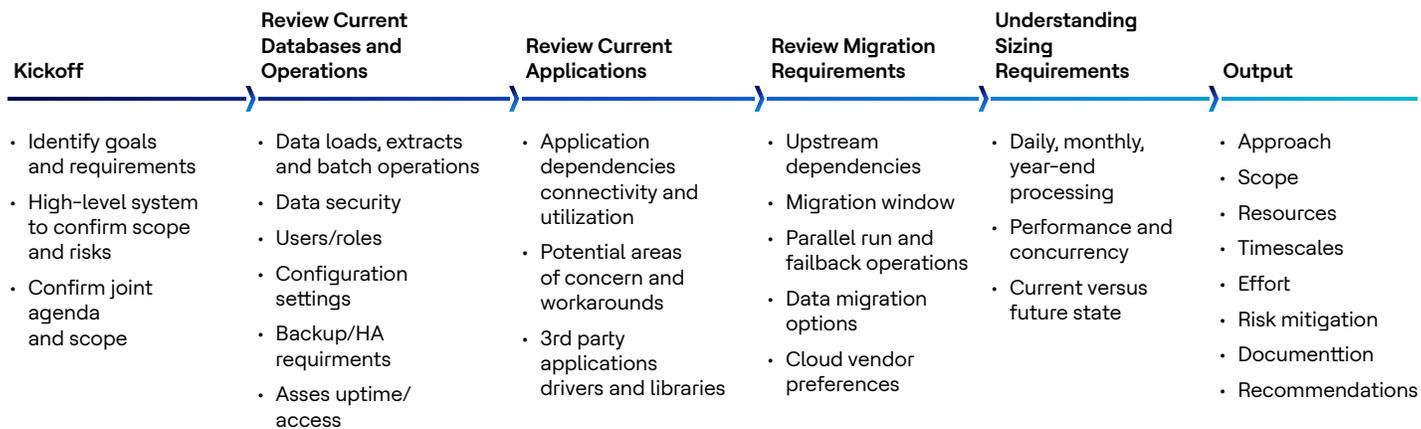


Figure 4. Ingres NeXt Readiness Assessment

## Ingres NeXt Readiness Assessment

The Actian Professional Services team, together with strategic partners, are available to collaborate with you to assess, scope and advise you on your journey to the cloud. Our Ingres NeXt Readiness Assessment, as show in Figure 4, is designed to help you reduce risk, save time and money, leverage best practices, and plan the best steps for success.

## About Actian

Actian makes data easy. We deliver cloud, hybrid cloud, and on-premises data solutions that simplify how people connect, manage, and analyze data. We transform business by enabling customers to make confident, data-driven decisions that accelerate their organization’s growth. Our data platform integrates seamlessly, performs reliably, and delivers at industry-leading speeds. Learn more about Actian, a division of HCLSoftware: [www.actian.com](http://www.actian.com).