

# **OpenROAD** Database Application Development

Simplified Application Modernization

OpenROAD Database Application Development is an objectoriented, 4GL rapid application development (RAD) tool that lets you develop and deploy mission-critical, n-tier business applications on Windows and Linux OpenROAD connects to databases such as Ingres database, Microsoft SQL Server, Oracle, Zen, and Actian X database and supports additional databases using ODBC.

The OpenROAD platform makes it easy to quickly create desktop applications and web services.

# **Key Benefits**

With OpenROAD, developers can quickly build and deploy sophisticated high performance and high availability business applications on a variety of platforms, accessing a broad range of data sources. As a result, you can react to business changes faster and protect your investment in existing applications.

# **Application Modernization**

Database application modernization is a strategic digital transformation initiative that can help 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.

However, application modernization can be expensive and risky without the right approach. OpenROAD simplifies and expedites modernization. OpenROAD provides tools to modernize "green screen" Ingres Application By Forms (ABF) applications by converting ABF forms into OpenROAD application development frames.

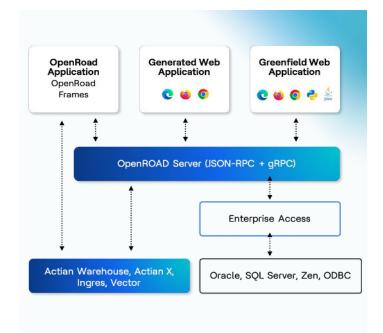


Figure 1. Flexible on-premises and cloud modernization options

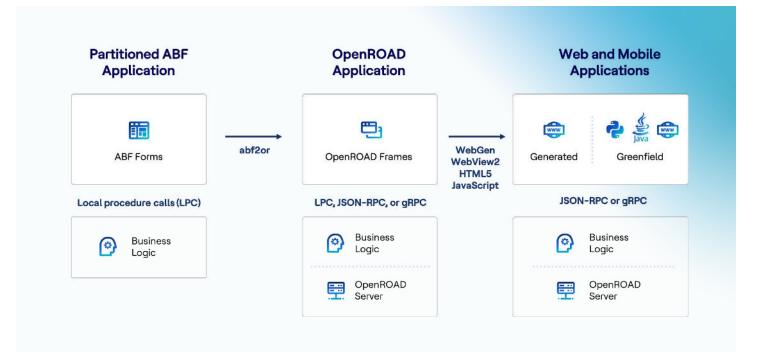
You can transform OpenROAD thick clients to browserbased applications without the cost, resource, effort, and risk associated with rewriting or replacing code. Developers can then extend these applications for web and mobile deployment, using HTML5 and JavaScript. Modernized applications, on-premises and in the cloud, give you the flexibility to address your business needs.

Encapsulating ABF business logic and deploying it in an OpenROAD Server preserves and protects application development investment. OpenROAD Server deployed in the cloud using microservices and containers allows portability and scalability of existing OpenROAD business logic, speeds communication between distributed systems, and simplifies rapid development with Volt MX, .NET, Java, and OpenROAD.

# **Key Features**

- Rapidly and cost effectively build applications that deliver high performance and availability
- Quickly deploy applications across platforms
- Modernize "green screen" Ingres database ABF and OpenROAD thick clients with minimal code changes
- Create and deploy web and mobile applications with the same functionality as desktop applications
- Use HTML5 and JavaScript for rich and interactive mobile and web user interfaces
- Embed web content into OpenROAD applications with WebView2

- **Protect existing system and database investments** by integrating them with new applications
- Re-use existing and third-party components, accelerating development
- Decouple business logic from presentation and database functions to increase performance and availability while reusing business logic across applications
- Re-deploy applications to other platforms without changing code
- Easily expose business logic as a web service
- Develop centrally and deploy remotely to a variety of clients and servers



## OpenROAD WebGen converts an OpenROAD application to a browser-based equivalent

- Create JSON and JSON-RPC applications that call business logic using procedures/SCP with BYREF
- Create JSON applications with complex object serialization support
- Create JSON-RPC applications for any web client. Sub-classes can call business logic
- Read and write to and from any resource (website, web service, file, and email) using URL object references



With **OpenROAD**, developers can quickly build and deploy high performance and high availability business applications on a variety of platforms, accessing a broad range of data sources.



## Components

#### **Development Workbench**

- Platform independent
- Graphical forms development
- Object-oriented 4GL
- Interactive debugger
- Database independence
- Support for external controls
- Build desktop, web and mobile clients and server components

#### **OpenROAD Server**

- Platform independent
- On-premises and cloud options
- High-performance architecture
- Supports XML In/Out
- Client access via JSON-RPC over HTTPS or gRPC
- gRPC is easy to deploy with no code changes required

#### **OpenROAD** Runtime

- Platform independent
- Rich browser or mobile (thin) or desktop (thick) applications
- Secure application delivery via LoadnRun option

## **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 industryleading speeds. Learn more about Actian, a division of HCLSoftware: www.actian.com.

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