Legacy applications are typically incompatible with technologies like cloud, analytics, and mobility, which can limit an organization's ability to achieve digital transformation. One way to remove these roadblocks is through modernization, an open-ended process that enables organizations to adopt current technologies and implement cloud services.

Modernization, a solution within our Application Modernization powered by innoWake™ suite, helps organizations achieve the flexibility and agility necessary for digital transformation and cloud rearchitecting. Our services span initial assessment to post-modernization maintenance, using proven methodologies, technologies, and experienced professionals.

We help minimize risk early on in a project by using automated analysis tools to assess legacy applications and mainframes to determine the best modernization approach. Using these results, we define a future-state architecture that guides the modernization initiative. Our tools help organizations implement new technologies and platforms to support evolving business needs, optimize IT investments, and build a flexible foundation for future innovation.

Modernization uses a cloud framework designed to help organizations take small, low-risk steps to rearchitect applications from legacy to Cloud Native. In addition, we also help modernize user screens and boost developer productivity with tools that help your developers rapidly design and deliver Cloud Native applications. From here, you’re ready to further pursue your Modernization vision based on individual business requirements, resources and time lines.

**From green screen to a modern interface**

Legacy screen

[Image of legacy screen]

Source: TX Department of Motor Vehicles

Modernized screen

[Image of modernized screen]

Source: Deloitte Consulting LLP, 2018

**Key capabilities**

**New possibilities:** Enables organizations to integrate modern platforms and technologies, and prepare for digital transformation

**Enhanced compatibility:** Improves interoperability with new technologies, platforms, and code

**Cloud ready:** Helps rearchitect legacy software to Cloud Native apps

**Builds efficiencies:** Helps enhance process efficiency and improve business performance

**New security tools:** Enables organizations to implement current cybersecurity solutions

**DevOps enhancement:** Introduces modern programming integrated development environment (IDE) to help further enhance development efficiencies and promote a collaborative development environment
Our Modernization solution uses one-of-a-kind tools and methodologies to extend the capabilities of your current system. The Modernization UI tool converts legacy user screens to modern interfaces that can improve the visual appeal and usability of applications. Current technologies like HTML5 and Vaadin, for instance, can enhance the user experience, reduce the required number of screens, and boost developer productivity. An HTML5-based UI can also help organizations improve support for video and audio, mobility, and global search. And developers can incrementally modernize capabilities as business needs evolve.

The Modernization solution leverages Microservices architecture to create flexible, independent processes that perform a defined function within the application. The technique uses business rules embedded in the code to develop individual, loosely coupled services. If, for instance, an organization needs to add a new process within an application, developers can employ Microservices to quickly create and deploy the service.

Microservices are critical to Modernization because they help organizations transform and maintain legacy systems. The technology also plays an essential role in enabling continuous integration and delivery of services, a key attribute of the DevOps methodology. Microservices are also essential to transforming legacy applications to a Cloud Native model.

The right tools, methods, and experience
Deloitte's Modernization methodologies and technologies are supported by a cross-industry, global team dedicated to delivering modernization. For each project, Deloitte assembles a collaborative team that has a unique combination of industry experience and specialized technical skills. In addition to the on-site project team, Deloitte’s Application Modernization Studios in Austin, TX, and Senden, Germany, help provide efficient and consistent support from a central location.

Together, these capabilities enable us to design and deliver end-to-end Modernization services. And as a single-source provider, we manage all team activities as part of the overall project management workstream.

LEARN MORE

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To learn more about Deloitte’s Modernization solutions, visit: https://www2.deloitte.com/us/appmod-modernization

Deloitte’s incremental Application Modernization approach

Updating user interfaces and harnessing Microservices for service delivery

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