

AI Assisted Web Application Modernization on Azure

A modern high velocity application development service and accelerators harnessing the capabilities of Azure OpenAI and GitHub Copilot, seamlessly migrating and modernizing their existing workloads to Azure. It enables enterprises to transition to a cloud-native architecture, embrace DevOps practices, optimize operational costs, and respond to market changes faster.

TCS' Web Application Modernization solution provides the following services to enable modernization and transformation of business applications using cloud-native services in Azure:

- **Application Modernization Assessment:** Assess workloads using in-house accelerators, 3rd Party tools and Azure native discover-assess-migration capability to identify candidates those can be benefitted from re-architecture to enable modernization strategy; this includes understanding the current architecture, future roadmap, and vision to enables us to recommend a target architecture
- **Web application modernization:** Accelerate the modernization of web applications by migrating existing on-premises applications to Azure or transforming legacy technologies like VB, ASP, and PowerBuilder into modern native applications by leveraging the power of Azure OpenAI and GitHub Copilot to automate various tasks, including legacy code analysis, code conversion, and generating unit test cases to ensure robustness.
- **Application containerization:** Leverage TCS' unique Container Fast Service to containerize applications, enabling streamlined deployments through orchestration solutions like Azure Container Apps, Azure Kubernetes Service (AKS), and OpenShift on Azure. Achieve fast and efficient migration using AZD templates and leverage the power of GitHub Copilot to automatically generate Kubernetes manifests for seamless deployment.
- **Open-source software adoption:** Embrace open-source software by transitioning from commercially licensed software to open-source technologies within the Azure ecosystem like Azure Database for MySQL and PostgreSQL to replace proprietary database solutions or migrate JBoss web server applications to Apache Tomcat web server. Enabled by Azure OpenAI paired development, convert existing code to modern open technologies ensuring a smooth transition to a modern high-performance system.
- **Microservices Adoption:** Facilitate the adoption of Microservices-based architectures for enterprises by leveraging domain analysis to model microservices. Accelerate high velocity microservice development by generating automated code blocks leveraging TCS' proprietary tool Modernization Propeller powered by OpenAI. Streamline CI/CD process by leveraging Azure DevOps and use the power of OpenAI to generate build and deploy YAML files.
- **Serverless Applications:** Embrace serverless architecture in Azure by implementing a well-designed serverless compute service, establishing efficient storage solutions for static content, implementing caching services, enabling event-driven communication, and designing robust

APIs to access services. Leverage the power of AI paired programming with GitHub Copilot to generate serverless code that follows the principles of being Single, Specific and Short.

Country/Region Availability: United States, Canada, United Kingdom, Germany, France, Belgium, Netherlands, Australia, Asia- Pacific

Competencies: Cloud Migration and Modernization

Applicable Industries: Financial services, Retail, Manufacturing, Health, Utilities, Travel & Hospitality, Professional Services

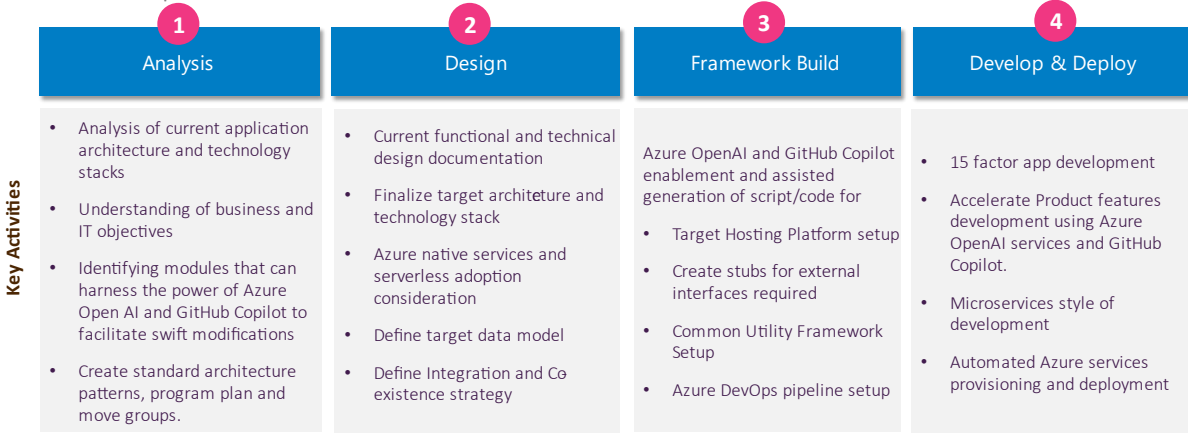
Service Type: Service Offerings

Screenshots: Please refer below for screenshots

Pricing: Available on request

AI Assisted Web Application Modernization : TCS Approach

TCS recommends an accelerated modernization approach for existing on-premises web applications, leveraging Azure's advanced capabilities, including Azure Open AI and GitHub Copilot's generative AI. This transformative solution aims to enhance user experience, increase agility, and improve operational efficiency, effectively addressing the evolving business requirements.



How TCS enables AI Assisted Web Application Modernization

