Teqfocus

Application Modernization

aws

PARTNER
Advanced Tier
Services

Client:

Industry: Learning Management System

About the Client:

Cadet Portfolio is a digital learning platform for training corps that prepares them for US Army & US Navy. It enables them to take assignments, document answers & organize their attempt to build leaders for life through JROTC, NROTC & SROTC program

The platform had to be modernized along with new features to be added like,

- Help cadets identify their goals & aspirations alongside means to track them Instructors to get real time overview of assignment completion & scores achieved
- Enhance dashboard for grading and approving assignments
- Ease to use UI for cadets and instructors.
- Performance improvements

Most importantly, the entire learning platform had to be modernized using Cloud Native Services on AWS Cloud.

Barriers to Application Modernization

- Lack of relevant skills and resources
- Mis-aligned org. structure and legacy based systems
- Knowledge of Compliance and Data Integrity
- Absence of new technology adoption culture
- Massive cost & duration
- Enablement of change management
- Lack of well-defined enterprise technology blueprint
- Monolithic Architecture

Identifying Business Case –
Cadet Portfolio's Application Modernization

Cadet Portfolio approached Teqfocus team with a vision to leverage current technology stack & consume benefits of cloud to help win a long-term contract with Department of Defence (DOD), USA.

Post Teqfocus team's help to win the contract, an exhaustive discovery was performed to understand the articulated requirements by DOD, USA.
Significant findings were drawn to chalk out key phases for efficacy and smoother delivery execution based on planned timelines.

Application Modernization phases

Phase 1 : Application migration to US Gov Cloud

Phase 2 : Automate Infra & Build CI/CD pipelines

Phase 3 : Refactor Code Base, add enhanced features

Phase 4 : Extend Web Application capability to Mobile

Derived Business Outcomes

Faster time to market

Value-driven ROI

Smooth integration of built learning platform with third party apps

Process improvements & efficacy

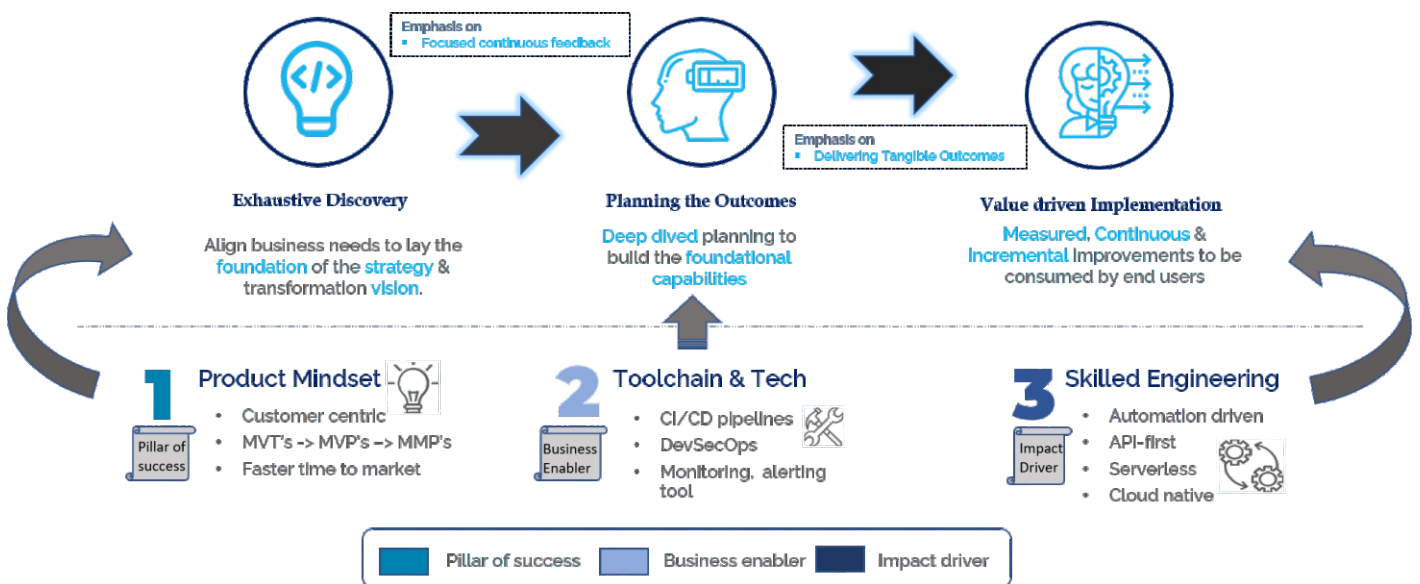Improved agility with the use of microservices architecture

Reduced costs

Flexibility to add trending new features

Outcomes-based Strategy Model

Teqfocus as a global consulting strategic partner uses the outcomes-based strategy across all its client implementations to deliver business outcomes aligned with customer goals and their product's vision.

Emphasis on
- Focused continuous feedback

Emphasis on
- Delivering Tangible Outcomes

Exhaustive Discovery

Align business needs to lay the **foundation** of the **strategy** & transformation **vision**.

Planning the Outcomes

Deep dived planning to build the **foundational capabilities**

Value driven Implementation

Measured, Continuous & Incremental improvements to be consumed by end users

1 **Product Mindset**
- Customer centric
- MVT's -> MVP's -> MMP's
- Faster time to market

Pillar of success

2 **Toolchain & Tech**
- CI/CD pipelines
- DevSecOps
- Monitoring, alerting tool

Business Enabler

3 **Skilled Engineering**
- Automation driven
- API-first
- Serverless
- Cloud native

Impact Driver

Pillar of success	Business enabler	Impact driver

Deep dive on phases

Phase 1 Migration to AWS GovCloud

What is AWS GovCloud?

AWS GovCloud (US) is an isolated region designed to host sensitive data and regulated workloads in the cloud, helping customers support their US government compliance requirements, and high baseline requirements

AWS GovCloud (US) is only available to

- US government agencies
- U.S. government contractors
- Private & Public commercial entities in the U.S.
- U.S. educational institutions
- U.S. non-profits & research organizations that meet the region's requirements for access

Teqfocus is amongst the very few strategic partners who have the knowledge & experience on helping customers in not only migrating their existing workloads from AWS Public Cloud to AWS GovCloud but also the expertise in building scalable & cost-efficient applications.

Phase 2 Automate Infra & Build CI/CD pipelines

- Basis discovery conducted with Cadet Portfolio & post business case identication, Teqfocus team automated the entire infrastructure taking into consideration the application deployment and database update events.
- CI/CD pipelines were created by our DevOps expert engineers to handle daily build deployments to multiple environments seamlessly.
- Cloud native services on AWS were leveraged to enable infrastructure automation & deployment pipelines.

Phase 3 Refactor Code Base, add enhanced features

- Teqfocus restructured the architecture followed by refactoring the code to enable scalability of the application yet retaining the functionalities that were core to the cadet learning platform.
- The objective here was to have a clean code base running & remove irrelevant code blocks that hampered the performance of the application that was well tested by our Quality Analysts.
- Result was an efficient & quality code running on well architected cloud infrastructure keeping the 5 pillars in mind – cost optimization, operational excellence, security, reliability & performance efficiency.

Phase 4 Extend Web capabilities to Mobile

- The web application capabilities were further extended to mobile phone usage retaining the same features and functionalities enabling cadets to take quizzes, work on assignments and submit them to their instructors for review.
- This added more flexibility to use for cadets while allowing them to use the application while they were on the go.

Delivery POD structure

Role	Summary of Responsibilities
Cadet Portfolio Steerco	This steering committee comprised of sponsors and executives who are key decision makers along with other Technical experts from Teqfocus to provide oversight on engagement.
Teqfocus Program Team	The program team comprised of IT leaders and PMO's to provide solution oversight, consistency across best practices adopted for one or more products.
Delivery POD team	This team comprised of Teqfocus Solution Architect, Technical Project Manager, Technical Lead(s), Developers, Quality Analysts and DevOps Engineers to discover, design, build and implement the cloud native platform for CP.

Attained Business Outcomes

- Cadet Portfolio was able to position itself as the go-to provider in terms of Cadet Learning Platform to the US Army & US Navy post undergoing the application modernization process with Teqfocus.

- With an efficient modern learning platform, it now enabled cadets & instructors to use focused learning mechanisms through non-traditional ways of education with the use of a next-gen learning platform.

- Reduced operating costs & enabled faster time to market with revamped architecture & features

- Scalable application ready to add new features leveraging current cloud native tech stack and functional toolchain

- Established governance and compliance strategy for further execution

Product Engineering and Cloud Services Capabilities

1 Product Development
- Product Strategy
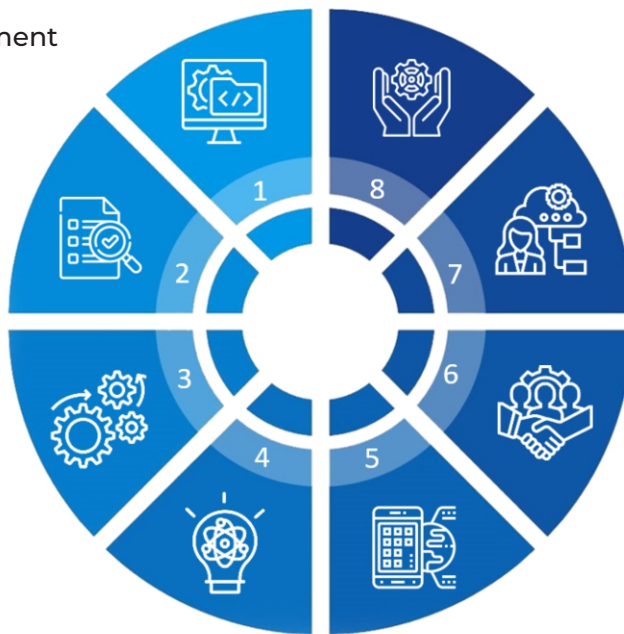- Product Design
- New Product Development
- Lean MVP's

2 Product Testing
- Automation testing
- Functional testing
- Load and performance testing
- Security testing

3 Product Re-engineering
- Re-Architecture
- Migration
- Transition
- Enhancements
- Customizations

4 Application Modernization

5 Enterprise Integration

6 Cloud Consulting

7 DevOps & Cloud-Ops / NOC services

8 Maintenance & Support

About Teqfocus

Teqfocus is a technology consulting and services company with over 250+ IT professionals worldwide. We deliver through our extensive portfolio of IT services with our immensely skilled and experienced consultants. Our wide range of services includes Business Application Implementations, Product Engineering, Data Engineering and Analytics, Cloud Services, User Experience, Technology Advisory, Transformation Office, and Legacy Migrations & Integrations. Our expertise addresses the growing needs of enterprises in industries such as EdTech, Life Sciences & Healthcare, Manufacturing, Mortgage, and Finance.

Teqfocus is a Salesforce Silver Consulting Partner, Salesforce India Reseller Partner & AWS Advanced Consulting Partner based out of Toronto, Canada with offices across the US, India, and the UK. We take pride in having a diverse range of technology experts which is one of the reasons we are not only favored but also recognized as one of the best technology companies to work with.

Teqfocus delivers relevant solutions, keeping the current market requirements and pace of technology in mind. We focus on Conceptualizing, Designing, Engineering, Building, and Managing products and delivering experiences for Enterprises looking to disrupt through innovation and scale.

www.teqfocus.com   marketing@teqfocus.com

Teqfocus