



**Verbat**  
TECHNOLOGIES

Your Technology Partner  
for Digital Projects



## **CASE STUDY**

**Full Revamp Of a  
Customs  
Clearance Portal**

**Verbat Technologies**

USA | UAE | INDIA

[www.verbat.com](http://www.verbat.com)

*Verbat is a Digital Technology Services company with over 15 years of experience in delivering Internet and Mobile Solutions to Enterprises, through Agile Development and Application Management methodologies*



## **Business Need: Upgrade existing portal to latest technologies with enhanced UI**

Owing to our experience and reputation in providing cost-effective web and mobile enterprise solutions, our client in the Middle East, tasked us to upgrade their existing Customs Clearance Portal. The requirement was to completely upgrade the system to latest technologies, migrate to other widely used web browsers, fix bugs, and enhance the user interface – a full revamp.

We proposed methods of streamlining the receipt generation capacity of their existing system in addition to adding user-friendly menus. The solution adds master pages, tweak the UI, streamline receipt generation, and add more useful features.

## **The Challenge**

Our main challenge was to preserve the existing database structure and data. Our team encountered another challenge during the testing phase as we were not given access to integrated applications in the system due to security reasons. We replicated the data manually for testing purposes.

## **Our Solution: An upgrade that adds more features, neutralizes bugs, and enhances the UI**

The existing system was developed in ASP.NET 1.1. Our developers upgraded the framework to ASP.NET 4.5 using VB programming. There were various sections in our client's portal, each of which using separate pop-ups in different pages. Our team designed the upgrade with all popups visible in a single page under their respective sections.

Prior to the upgrade, the system uploaded manifest details of various consignments in bulk. We streamlined the upload system to extract data properly from external users.

The solution brought order and made receipt generation less sophisticated. The application used to run on older versions of Internet Explorer. Post upgrade, it was made compatible with Google Chrome and Mozilla Firefox.



## Results: Streamlined receipt generation and data management, enhanced security

Prior to the upgrade, the existing portal was primarily used by external users with narrow technical knowledge. Without assistance from Support team, managing the application wasn't easy. So we added features that proved beneficial.

Benefits include:

- ❖ A 'Help' option for users to grasp the functioning and elucidate their doubts
- ❖ Modular data management and structured reports brought order
- ❖ Time consumption was reduced
- ❖ Safeguarded customs operations with a controlled flow of goods increasing overall operational speed and efficiency

The portal is now more user-friendly thanks to an enhanced UI.

### Other features in the solution include:

- 1 User-friendly interface for shipment declaration pages
- 2 Generate Delivery Order/Export Bills with embedded barcodes
- 3 Separate modules for shipping, free zone clearance, air cargo, sea cargo, and vehicle clearance
- 4 View/download Duty and Deposit reports
- 5 User management – Super Admin, Admin Users, Terminal Users, Agents, and Consignees
- 6 User-based access permission
- 7 Enhanced security

We provided additional options for users enabling them to create/register shipment voyages, declare shipments, share voyage with other consignees, and generate ETA/Manifest/Delivery order/Bill of Entry/Delivery receipt.

Rigorous testing neutralized bugs in the system.

## Technology

Application **Framework**



ASP .NET 4.5

Programming **Language**



Visual Basics

Database **Server**



Oracle 11g

Hosting **Environment**



IIS 7.0 Web Server