

Back Office Deployment Manual

v0.1

# Document Control

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# Introduction

The current employee hiring process relies on manual procedures for onboarding corporate employees, resulting in a slow and labor-intensive integration process. Additionally, any changes in employee responsibilities require documentation to be recreated from scratch. This document aims to digitize and streamline these processes to reduce or eliminate manual intervention, thereby enhancing efficiency and providing a seamless onboarding experience for our clients.

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# Objective

The purpose of this document is to describe Deployment of the back-office portal and its architecture.

This document describes the deployment architecture.

# Deployments

## Development of Portal

Portal has been developed using MERN (MySQL, Express.js, React.js, Node.js) stack. This stack provides a robust and scalable foundation for developing modern web applications.

Express.js is a web application framework for Node.js that provides a robust set of features for building web applications, including middleware support and routing capabilities.

React is a JavaScript library for building user interfaces, developed by Facebook. It allows developers to create interactive UI components efficiently, making it easier to build dynamic and responsive web applications.

Node.js is a server-side JavaScript runtime environment that allows developers to build scalable and high-performance web applications. It provides a non-blocking, event-driven architecture that is well-suited for building real-time applications.

Together, these technologies form a powerful and flexible stack for building modern web applications. The MERN stack's modular and flexible nature allows developers to easily extend and customize their applications, making it a popular choice for building a wide range of web applications.

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## Deployment

Back Office Portal has been deployed on a Virtual machine with TKGS Tanzu Kubernetes Grid Service (TKGS).

//to be written on deployment

## Deployment architecture

### Portal development

Portal’s development is done using PHP CMS named DRUPAL.

Drupal is a flexible CMS based on the LAMP stack, with a modular design allowing features to be added and removed by installing and uninstalling modules and allowing the entire look and feel of the website to be changed by installing and uninstalling themes. The base Drupal download, known as Drupal Core, contains the PHP scripts needed to run the basic CMS functionality, several optional modules and themes, and many JavaScript, CSS, and image assets.

Drupal can also run-on other technology stacks:

The operating system can be Windows or Mac OS instead of Linux.

The web server can be Nginx or IIS instead of Apache.

The database can be MySQL. Other operating systems, web servers, and databases can also be made to work; however, the scripts that the software uses are written in PHP, so that cannot be changed.



### Codebase

A private repository has been made with the name of Ecofactory in the Jazz cash GitHub. And the latest code has been placed in the GitHub repository. this code is used for portals that is deployed.

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### Database

MySQL database has been used for storing data. MySQL is a popular open-source relational database management system (RDBMS). It is known for its reliability, scalability, and performance. MySQL is commonly used for storing structured data in web applications. MySQL organizes data into tables with rows and columns, enabling efficient data storage and retrieval. Its scalability allows it to handle large datasets and grow to meet increased demands. MySQL's performance is notable for its speed, supported by features like indexing, caching, and optimized memory usage. The system prioritizes security with authentication, access control, and data encryption features. MySQL also supports replication for data backup and clustering for high availability and load balancing, making it suitable for a wide range of applications, from small websites to large enterprise systems.