Metro Ticket Generating System
Project Overview

Introduction

In modern urban environments, efficient metro infrastructure is critical for enabling rapid transit and city-wide mobility. Traditionally, metro systems relied on physical tokens or paper tickets, which often resulted in long queues, high operational costs, and environmental waste.

To overcome these challenges, this project leverages ServiceNow to provide a digitized and centralized platform for managing metro ticket bookings. By automating the ticketing lifecycle, the system enhances operational efficiency by streamlining passenger workflows, reducing manual intervention at station counters, and ensuring real-time digital ticket delivery

Purpose of the Project

The primary purpose of this project is to automate the complete lifecycle of metro ticketing using ServiceNow. The project aims to replace manual ticket vending with a structured digital workflow that ensures consistency in fare collection and compliance with transit policies.

Key goals include:

- **Fully Automated Generation:** Implementing a scalable QR code generation process for digital tickets.

- **Minimized Intervention:** Reducing the need for manual staff at counters to ensure requests are handled in a predictable, automated manner.

- **Rapid Fulfilment:** Ensuring instant ticket delivery, audit-ready transaction records, and accurate passenger tracking.

Business Objective

The business objective is to improve operational efficiency, reduce manual effort, and enhance commuter satisfaction in managing metro travel.

Key objectives include:

- **Efficiency:** Reducing manual effort and minimizing human errors (such as incorrect change or fare calculation) while accelerating fulfilment via automation.

- **Commuter Convenience**: Enhancing the end-user experience with faster, mobile-ready service delivery through user-friendly digital ticketing options like QR codes to reduce wait times.

- **Digital Adoption:** Encouraging cashless transactions and promoting the use of digital payment methods to facilitate revenue collection.

- **Sustainability:** Reducing paper usage by transitioning to digital tickets, contributing to eco-friendly practices and environmental sustainability.

Project Scope Overview

The scope of this project focuses on automating metro-related bookings through the ServiceNow platform.

- **Service Catalog**: Creation of a customized Catalog Item ("Book a Metro Ticket") that allows users to submit travel details including source, destination, and passenger count.

- **Automation:** The system triggers automated workflows to manage fare calculations, record creation in the Metro Database, and instant notifications.

- **QR Integration:** Implementation of an onSubmit Client Script that interfaces with an external API to generate unique, scannable QR codes based on the record sys_id.

- **Stakeholder Management:** The project supports multiple roles, including Passengers (Requesters), Station Managers (Approvers), and IT Admins, with predefined permissions.

Conclusion

The Metro Ticket Generating System represents a practical approach to modernizing urban transit handling. By automating ticket intake, fare calculation, and fulfilment through QR codes, the system reduces operational inefficiencies and improves overall service quality. This project demonstrates how ServiceNow can be effectively used to deliver scalable, secure, and user-friendly IT service management solutions for public infrastructure while ensuring audit-ready compliance.