Metro Ticket Generating System
Functional Scope and Execution Roadmap

Functional Scope

The **Metro Ticket Generating System** in ServiceNow is designed to automate the intake, processing, and fulfilment of digital transit requests. This functional scope defines the features, capabilities, and boundaries to ensure a clear understanding of the project deliverables.

Key Features:

- **Service Catalog Creation:** Provides a centralized portal interface for commuters to submit metro-related requests. Catalog items include required fields such as source station, destination station, and passenger count. It supports dynamic forms and conditional fields for an optimized user experience.

- **Form Setup and Configuration:** Forms capture all relevant travel information with mandatory fields to ensure data completeness for fare calculation. UI policies and client scripts ensure fields appear dynamically based on user selections, such as hiding "Smart Card" fields when "QR Booking" is selected.

- **Flow Designer Automation:** This feature automates backend tasks such as record creation in custom tables (e.g., u_metro_station_s_details), calculating fares, and updating

request statuses. The flow is triggered upon catalog submission for end-to-end automation.

- **QR Code Integration:** Utilizes an onSubmit Catalog Client Script to interface with external APIs, generating a unique, scannable QR code for the digital ticket.

Functional Boundaries

- **Scope Limitation:** Only metro-related ticketing and smart card recharge requests are included in the scope of this project.

- **Integrations:** Integration with external physical gate hardware is considered optional and may be included in future enhancements.

- **Access Control:** The system supports role-based access for commuters (requesters), station managers (approvers), and IT administrators.

Execution Roadmap

The execution roadmap defines the milestones and structured approach for implementing the Metro Ticket Generating System. Each milestone ensures controlled delivery and reduces implementation risks.

Milestone 1: Catalog Creation

- Create metro service catalog items in ServiceNow.

- Define variables, categories, and request types.

- Ensure catalog visibility for target end-users.

Milestone 2: Form Setup

- Design request forms capturing all required travel information.

- Apply UI policies for dynamic field visibility.

- Configure mandatory fields to ensure data completeness.

Milestone 3: Automation & Scripting

- Implement automated workflows using Flow Designer for record creation and notifications.

- Configure Catalog Client Scripts for QR code generation.

Milestone 4: Testing

- Perform functional testing of catalog, forms, approvals, and notifications.

- Validate automation workflows, QR rendering, and field mapping.

- Conduct role-based access testing to ensure security compliance.

Milestone 5: Deployment

- Move configuration to the target environment using update sets.

- Validate system performance in the live environment.

- Provide access to end-users and monitor initial requests.

Outcome of Functional Scope and Execution Roadmap

By following this functional scope and execution roadmap:

- All metro ticket requests are automated, significantly reducing manual effort at station counters.

- Transactions follow standardized workflows with full auditability in custom tables.

- Commuters gain better visibility and transparency into their booking status.

- The system ensures compliance with transit policies and reduces human error in fare calculation.

- End-users benefit from a streamlined, user-friendly submission experience.

Conclusion

This combined Functional Scope and Execution Roadmap document clearly defines what the system will do, how it will operate, and the phased approach to implement the Metro Ticket Generating System. It serves as a blueprint for the development, configuration, testing, and deployment phases, ensuring a structured and efficient project execution.