Project Design Phase-II

Data Flow Diagram & User Stories

Data Flow Diagrams

A Data Flow Diagram (DFD) is a visual representation of how information flows within the Automated Network Request Management system. It shows how network requests enter the system, how ServiceNow processes or automates them, and where the request data is stored.

Example: (Simplified) Flow

1. **User** submits a Network Access or Configuration request via the ServiceNow Service Portal.
2. **ServiceNow Workflow Engine** validates the request details and checks against predefined network policies.
3. **Integration Hub (Spokes)** communicates with network infrastructure (e.g., Cisco DNA Center, F5, or AWS) to extract current configuration data.
4. **Automation Engine** executes the change or provisioning command and enriches the record with execution logs.
5. **Request Status** and completion details are visualized for the user and admin via ServiceNow Dashboards.

Example: DFD Level 0 (Industry Standard)

The following reflects the high-level logic for the Network Request process:

- **External Entities:** User (Requestor), Network Infrastructure, Fulfillment System.
- **Processes:** 1.0 Validate Request, 2.0 Authorize/Approve, 3.0 Provision Network Change, 4.0 Update CMDB.
- **Data Stores:** Request Records, User Profiles, Network Inventory (CMDB), Audit Logs.

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Employee)	Request Submission	**USN-1**	As a user, I can request a new VPN or Port access by filling out a service catalog form.	I can access the requested network within 10 mins of approval.	High	Sprint-1
Customer (Employee)	Notifications	**USN-2**	As a user, I want to receive an automated email once my network request is provisioned.	I receive a confirmation email with my specific access details.	High	Sprint-1
Network Admin	Automation	**USN-3**	As an admin, I want the system to automatically push firewall rules so I don't have to use CLI.	The rule appears in the firewall logs without manual intervention.	Medium	Sprint-2
Administrator	Governance	**USN-4**	As an admin, I can view a dashboard of all automated vs. failed network requests.	Dashboard reflects real-time automation success rates.	High	Sprint-1
Customer Care	Support	**USN-5**	As a support agent, I can view the automation logs to explain a failure to a user.	Logs are accessible directly from the request ticket.	Medium	Sprint-1