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Project Design Phase
Solution Architecture

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PROJECT NAME	LAPTOP REQUEST CATALOG ITEM
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Solution Architecture

The solution architecture for this project bridges the gap between the organization's manual laptop request process and a structured, automated system within the ServiceNow platform. It is designed to ensure scalability, usability, and seamless integration with the existing ITSM environment.

The architecture is divided into four main layers:

1. **Presentation Layer (Frontend):**
   Users interact with a custom Service Catalog item named "Laptop Request" through the ServiceNow portal. The form includes fields like Laptop Model, Justification, and Accessories, and is designed with dynamic visibility based on user input.

2. **Logic Layer (Business Logic):**
   This layer includes UI Policies, Client Scripts (GlideForm), and UI Actions. It manages field behavior—such as showing the Accessories Details field when the checkbox is selected—and enforces form validation and reset functionality.

3. **Persistence Layer (Data Management):**
   Submitted data is stored in ServiceNow tables, ensuring structured records for all laptop requests. This enables accurate tracking, auditing, and management of employee hardware requests.

4. **Deployment Layer (Update Sets):**
   All configurations are packaged in a local Update Set, which can be exported and imported across different ServiceNow instances. This ensures portability, version control, and efficient environment management.

Key Goals Achieved in the Architecture:

- Solves the inefficiency of manual hardware request handling.

- Clearly defines how the solution behaves and interacts at every layer.

- Ensures maintainability and adaptability across ServiceNow instances.

- Enables phased development (form creation → logic → deployment).

- Supports stakeholders with a clear understanding of component flow and structure.