Requirement Analysis & Planning

Automated Network Request Management in ServiceNow

1. Introduction

Automated Network Request Management is a ServiceNow-based solution designed to streamline the end-to-end lifecycle of network-related service requests such as LAN/WAN access, firewall rule changes, VPN access, IP allocation, bandwidth upgrades, and network troubleshooting. The system replaces manual, email-driven processes with a structured, automated workflow that improves efficiency, visibility, compliance, and user satisfaction.

This phase of the project focuses on **Requirement Analysis & Planning**, which forms the foundation for design, development, testing, and deployment. It clearly defines business objectives, functional scope, stakeholders, and an execution roadmap to ensure successful delivery.

2. Business Objectives

2.1 Primary Business Goals

The primary objective of implementing Automated Network Request Management in ServiceNow is to create a **centralized, automated, and auditable platform** for handling all network-related requests.

Key goals include: - Eliminate manual handling of network requests via emails and spreadsheets - Standardize request intake and approval processes - Reduce request turnaround time (TAT) - Improve visibility and tracking for users and IT teams - Ensure compliance with organizational and security policies

2.2 Operational Efficiency

- Automate request creation, categorization, routing, and assignment
- Reduce dependency on manual coordination between users and network teams
- Enable auto-assignment to the correct network support group
- Minimize errors caused by incomplete or incorrect request details

2.3 User Experience Improvement

- Provide a user-friendly Service Catalog for network requests
- Enable real-time request status tracking

- Reduce follow-ups and escalations
- Ensure faster resolution through predefined workflows

2.4 Governance and Compliance

- Maintain an audit trail of approvals and changes
- Enforce approval workflows for sensitive network changes
- Align with ITIL best practices (Request Fulfillment)
- Support compliance requirements for security and access control

2.5 Scalability and Future Readiness

- Design the solution to support future network services
- Enable easy configuration changes without heavy customization
- Support integration with monitoring tools and CMDB

3. Functional Scope

3.1 In-Scope Functionalities

3.1.1 Service Catalog Management

- Creation of a **Network Request Catalog**
- Multiple catalog items such as:
    - New Network Access Request
    - VPN Access Request
    - Firewall Change Request
    - IP Address Allocation
    - Bandwidth Upgrade Request
- Dynamic forms based on request type

3.1.2 Request Submission

- End users submit requests via Service Portal
- Mandatory fields to ensure complete information
- Auto-population of user details (name, department, location)
- Validation rules to prevent incorrect submissions

3.1.3 Workflow Automation

- Automated flow triggered on request submission
- Routing to appropriate approval authority
- Assignment to correct network support group
- SLA tracking for request fulfillment

3.1.4 Approval Management

- Manager approval for standard requests

- Multi-level approval for high-risk changes (e.g., firewall rules)
- Conditional approvals based on request category
- Auto-approval for low-risk requests (if applicable)

3.1.5 Task and Assignment Management

- Automatic creation of Network Tasks
- Assignment based on request type and location
- Support for reassignment and escalation
- Status tracking (New, In Progress, On Hold, Completed)

3.1.6 Notifications and Communication

- Email notifications for:
    - Request submission
    - Approval required
    - Approval/rejection
    - Request completion
- System-generated comments and work notes

3.1.7 Reporting and Dashboards

- Request volume by category
- SLA compliance reports
- Pending approvals and overdue tasks
- Network team workload analysis

3.2 Out-of-Scope Functionalities

- Network device configuration automation
- Real-time network monitoring
- Third-party firewall rule execution
- Non-network IT service requests

4. Stakeholder Mapping

4.1 Stakeholder Identification

4.1.1 Business Stakeholders

- **End Users**: Employees requesting network services
- **Department Managers**: Approve network access requests
- **IT Leadership**: Define policies and monitor performance

4.1.2 Technical Stakeholders

- **Network Support Team**: Fulfill and resolve requests
- **ServiceNow Administrator**: Configure and maintain the platform

- **ServiceNow Developer**: Implement workflows, scripts, and integrations

4.1.3 Governance Stakeholders

- **Information Security Team**: Ensure security compliance
- **Audit and Compliance Team**: Review logs and approvals

4.2 Stakeholder Roles and Responsibilities

Stakeholder	Responsibilities
End User	Submit network requests and track status
Manager	Review and approve/reject requests
Network Engineer	Analyze and fulfill network tasks
ServiceNow Admin	Maintain tables, forms, and access
ServiceNow Developer	Build flows, UI policies, and automation
Security Team	Validate security-sensitive requests
IT Management	Monitor KPIs and SLA performance

4.3 Stakeholder Communication Plan

- Email notifications for approvals and updates
- Dashboards for IT management
- Periodic review meetings with network and security teams

5. Execution Roadmap

5.1 Phase 1: Requirement Gathering

- Conduct discussions with network and IT teams
- Identify request types and approval rules
- Document business rules and SLAs
- Finalize scope and success criteria

5.2 Phase 2: Planning and Design

- Design data model (tables and relationships)
- Define catalog structure and form layouts
- Design workflow logic and approval flows
- Define roles, groups, and access controls

5.3 Phase 3: Development and Configuration

- Create custom tables (Network Request, Network Task)
- Configure Service Catalog items
- Build flows using Flow Designer

- Configure UI policies, client scripts, and business rules

5.4 Phase 4: Testing

- Unit testing of catalog items and workflows
- User acceptance testing (UAT)
- Approval and notification validation
- SLA and performance testing

5.5 Phase 5: Deployment

- Migrate solution to target instance
- Assign roles and permissions
- Enable production workflows
- Communicate go-live to users

5.6 Phase 6: Post-Implementation Support

- Monitor system performance
- Handle user feedback and enhancements
- Continuous improvement based on reports
- Add new network services as required

6. Conclusion

The Requirement Analysis & Planning phase ensures that the Automated Network Request Management solution aligns with business goals, user needs, and technical standards. By clearly defining objectives, scope, stakeholders, and execution strategy, this phase minimizes risks and lays a strong foundation for successful implementation in ServiceNow.

This structured approach enables faster request fulfillment, improved transparency, better governance, and a scalable platform for future network service automation.