Automated Network Request Management in ServiceNow

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1. Introduction

Level 2 Testing represents the **second phase of validation** for the *Automated Network Request Management in ServiceNow* project. While Level 1 testing focused on validating internal automation logic, Level 2 testing focuses on **end-to-end functional validation** of the complete system.

This phase ensures that all system components—user interface, automation workflows, approvals, notifications, and record updates—work together seamlessly to deliver the intended business functionality.

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2. Purpose of Level 2 Testing

The primary purpose of Level 2 testing is to validate the **complete network request lifecycle** under realistic usage conditions. This phase confirms that the system behaves correctly when accessed by actual users and roles.

The objectives include:

- Verifying request submission through the Service Catalog
- Validating form input and field behavior
- Confirming approval routing and decision handling
- Ensuring correct status transitions
- Verifying notification delivery
- Ensuring data consistency across records

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3. Scope of Level 2 Testing

3.1 In-Scope Components

Level 2 testing includes:

- Service Catalog request forms
- Dynamic field behavior and validations
- Approval workflows
- Notification mechanisms
- Request tracking and status updates
- Record lifecycle management

3.2 Out-of-Scope Components

The following were not included:

- Performance and load testing
- Security penetration testing
- External system integrations
- Production environment validation

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4. Test Environment

Level 2 testing was performed in a controlled ServiceNow environment designed to simulate real-world usage.

Parameter	Description
Platform	ServiceNow Developer Instance
Testing Type	Functional & End-to-End Testing

Parameter	Description
Modules Involved	Service Catalog, Flow Designer, Approvals, Notifications
User Roles	End User, Approver, Network Team
Browser	Google Chrome

The environment ensured realistic execution while maintaining safe testing conditions.

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5. Testing Approach and Methodology

Level 2 testing followed a **black-box testing approach**, where the system was tested from the user's perspective without focusing on internal implementation details.

Methodology:

1. User submits network request
2. System validates form data
3. Automation workflows are triggered
4. Approvals are routed
5. Notifications are sent
6. Request status is updated
7. Request is completed and closed

Each step was validated for correctness and consistency.

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6. Service Catalog Request Validation

The Service Catalog serves as the primary entry point for users.

Validation Areas:

- Form loading time
- Mandatory field enforcement
- Dynamic field visibility
- Accurate data capture
- Successful request submission

The form behaved as expected and captured all required details correctly.

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7. Approval Workflow Validation

Approval workflows were tested to ensure governance and compliance.

Validation Focus:

- Correct identification of approvers
- Timely approval notifications
- Handling of approve/reject actions
- Conditional approval paths
- Approval history tracking

Approvals were routed correctly and reflected accurately in the system.

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8. Notification Validation

Notifications were tested to ensure proper communication throughout the request lifecycle.

Notifications Tested:

- Request submission confirmation
- Approval request notifications

- Approval decision notifications
- Status change notifications

All notifications were delivered with correct content and timing.

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9. Request Status & Lifecycle Validation

Each request passes through multiple states.

States Validated:

- New
- Pending Approval
- Approved
- In Progress
- Completed / Closed

Status transitions occurred automatically and correctly based on workflow execution.

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10. Data Integrity & Audit Validation

This phase ensured backend data accuracy.

Validation Points:

- Request records updated correctly
- Approval decisions recorded accurately
- Audit logs maintained
- No data loss or inconsistency observed

Data integrity was preserved throughout execution.

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11. Error Handling & Exception Scenarios

The system’s ability to handle unexpected situations was evaluated.

Scenarios Covered:

- Approval rejection
- Delayed approval response
- Incomplete optional inputs
- User navigation errors

The system handled exceptions gracefully without failure.

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12. Test Results Summary

Test Area	Result
Request Submission	Pass
Form Validation	Pass
Approval Routing	Pass
Notification Delivery	Pass
Status Updates	Pass
Data Integrity	Pass

No critical defects were identified during Level 2 testing.

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13. Observations

- End-to-end flow executed smoothly
- User interaction was intuitive

- Automation significantly reduced manual effort
- Communication and transparency improved

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14. Limitations

- Testing conducted in developer instance
- Real enterprise load not simulated
- External dependencies not tested

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15. Conclusion

Level 2 testing successfully validated the **functional completeness and reliability** of the Automated Network Request Management system. The system met all functional requirements and demonstrated readiness for deployment and real-world use.

This phase confirmed that the automated solution delivers efficient, transparent, and consistent network request processing.

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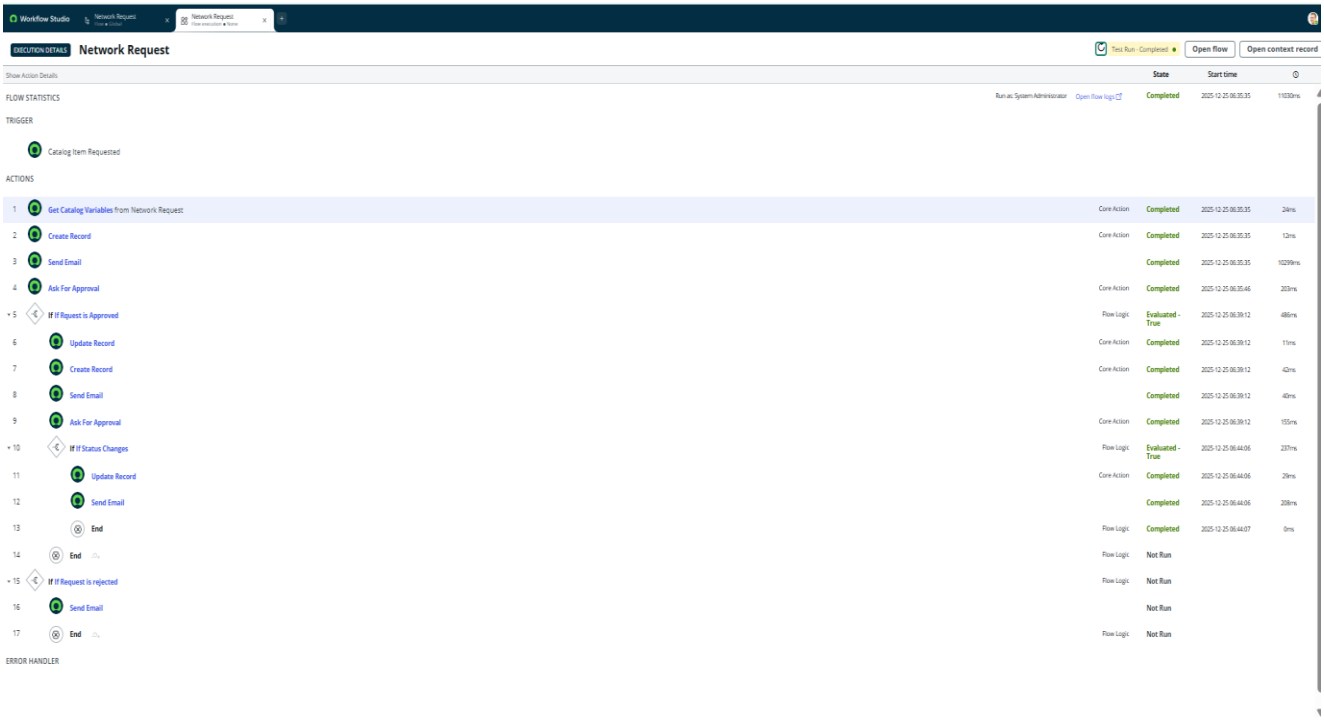
16. Evidence



Level 2 Testing – End-to-End Network Request Execution