

Test Hyper Automation

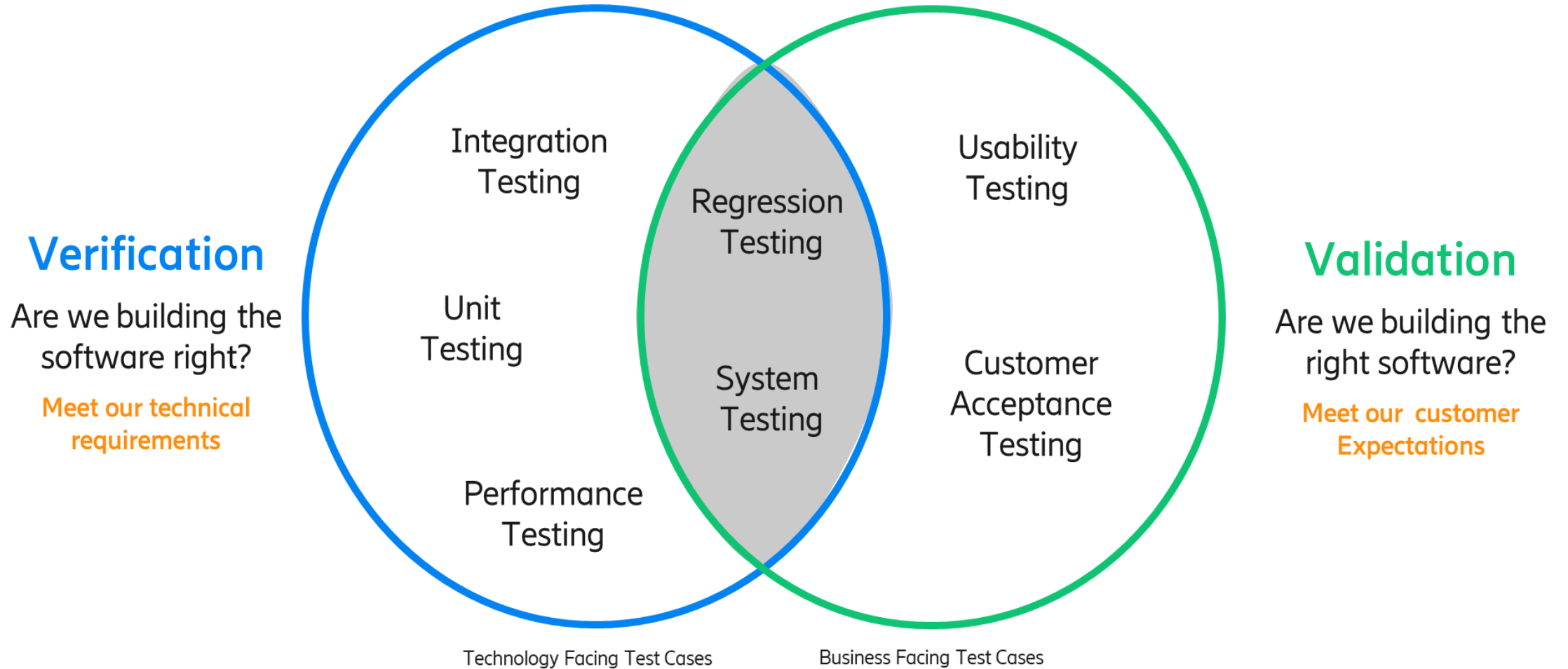


Diego Chedufau
Head of Software Delivery Pipelines Transformation

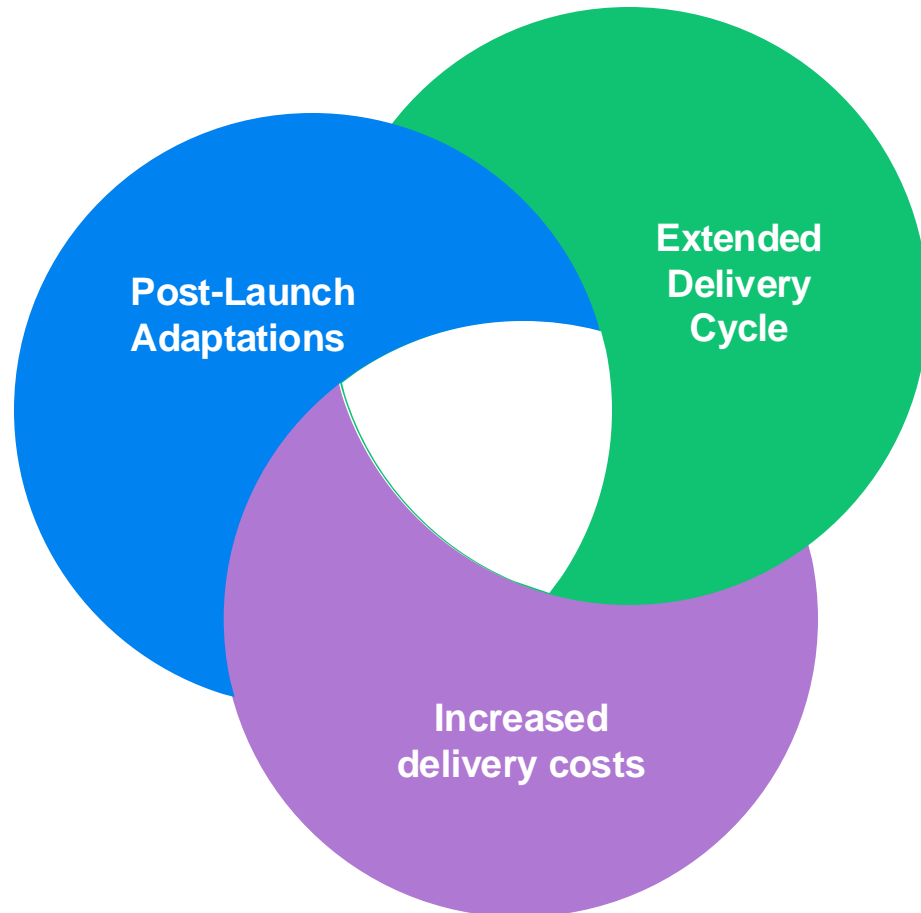
Hyper automation aims to create an end-to-end automation system that integrates across all layers of an organization, resulting in increased operational efficiency, improved accuracy, reduced costs, and a more agile business environment.



Starting point



Business Problem



Post-Launch Adaptations

High variability in customer testing and integration needs increases complexity and operational strain. Global Scale.

Extended Delivery Cycle

Custom validation processes lead to longer timelines and increased resource demands.

Increased delivery costs

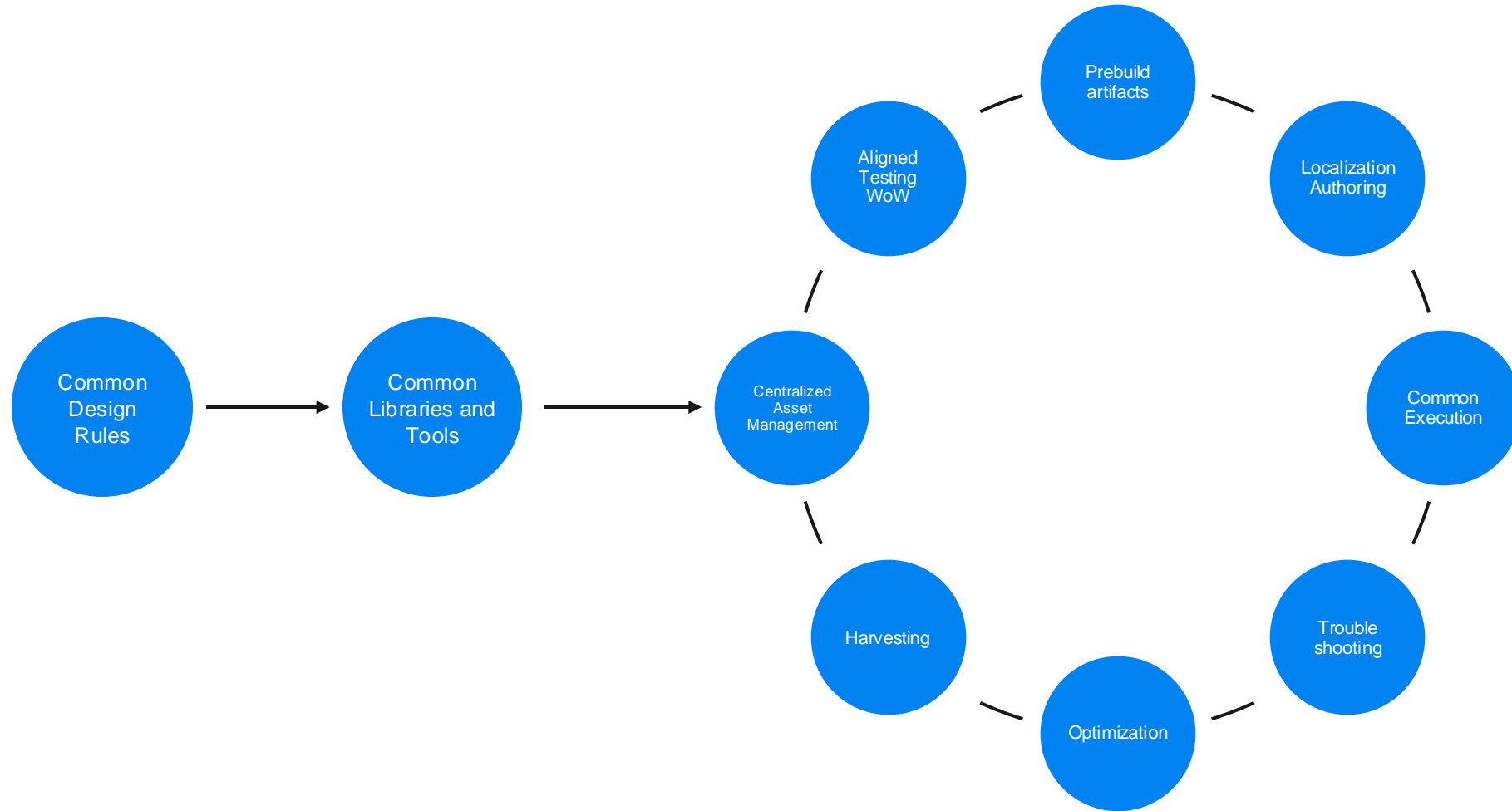
Higher delivery costs and deployment complexity arise from managing diverse client requirements.



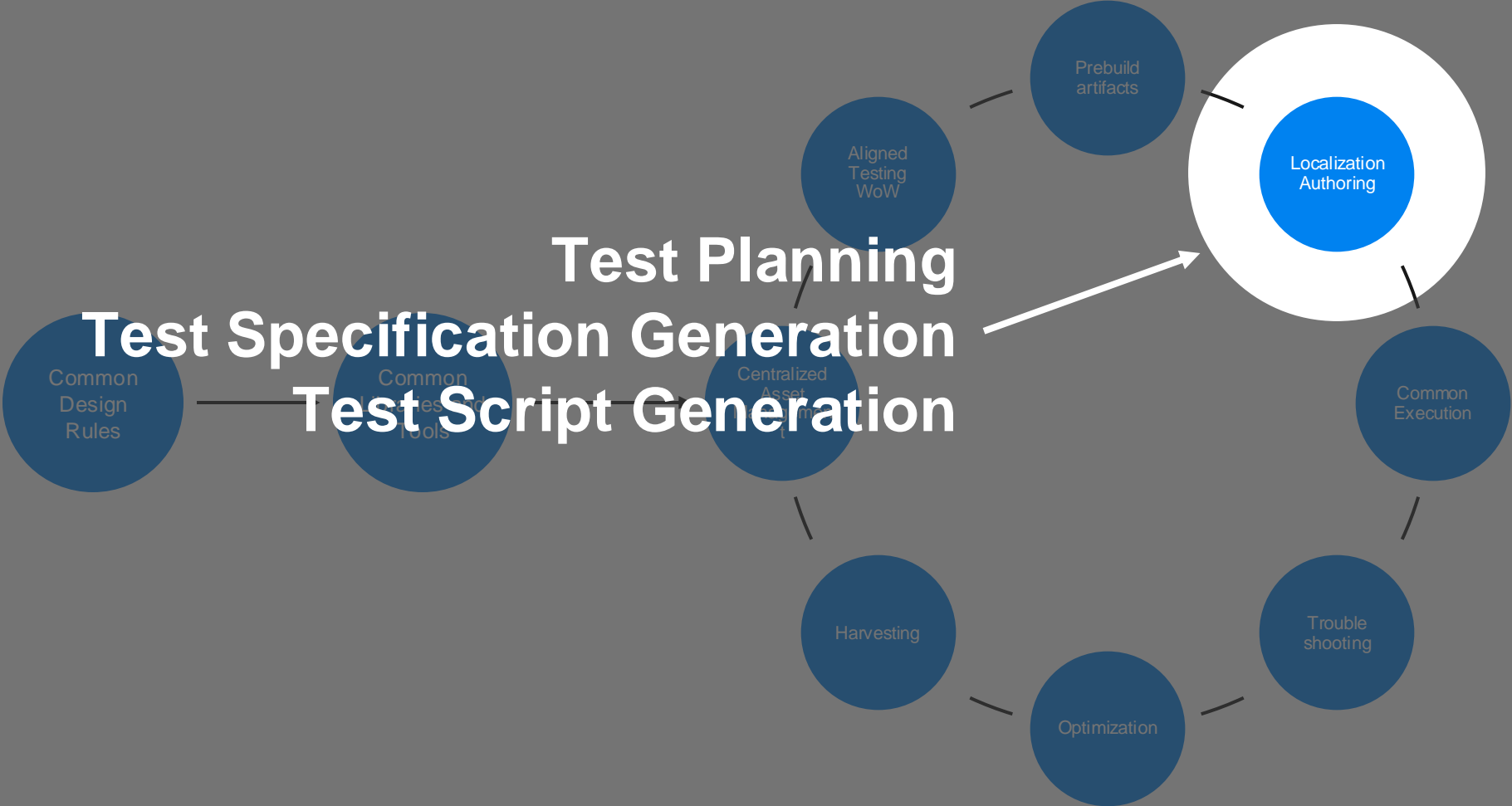
45%
Test Authoring

55%
Test Execution and Troubleshooting

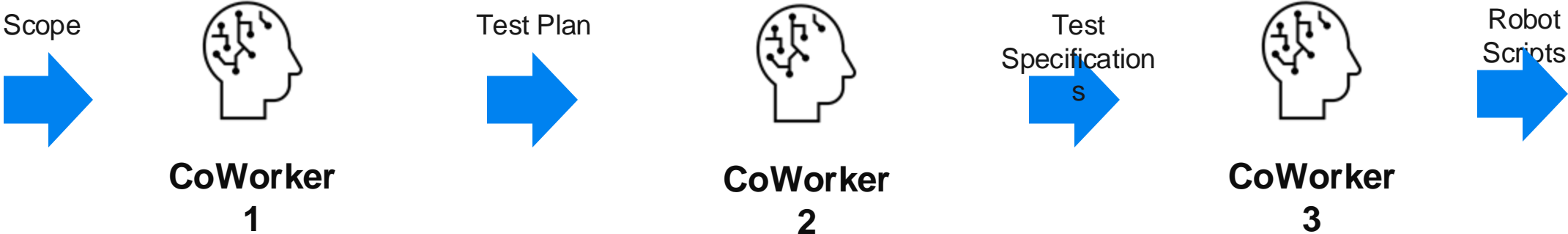
The Journey



The Journey



Test Automation CoWorkers



The mastermind behind test planning, ensuring all bases are covered

Product Information

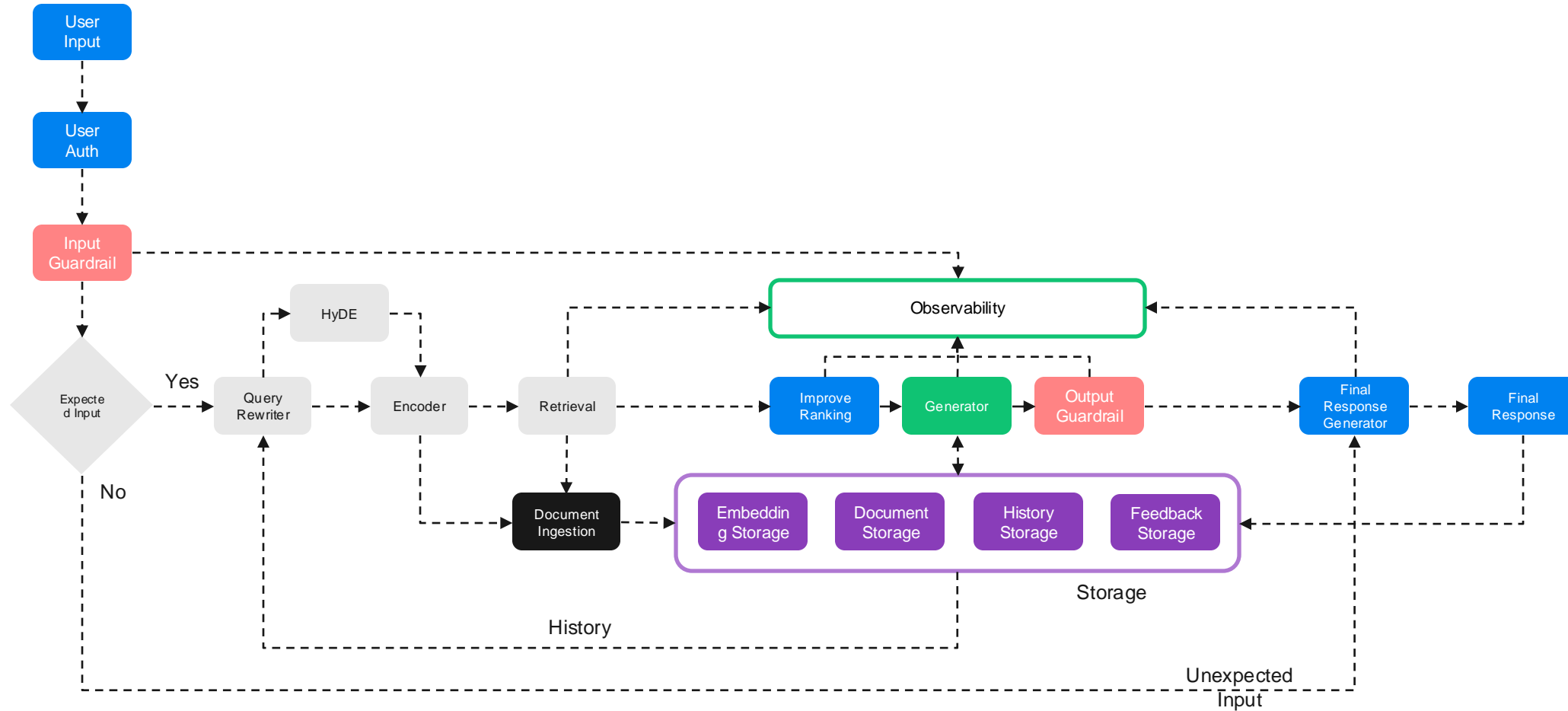
The expert at transforming plans into detailed specifications.

Interfaces, SW Changes

The adept at automating and refining test scripts for efficient testing.

Libraries, Interfaces, Design Rules

RAG Enterprise Architecture





Play

Time for Demo

Validate Specification

Generate Code

Validate Code

Fix Code

Describe Code

The Test Specification functionality allows you to either validate an existing test specification or provide details about what you want the test case to achieve. GenAI assists in formatting your input using a predefined template created by the TAR team. This template ensures that your test case is structured correctly to proceed to the next step: Generate Code.

```
1 Test Specification Document
2 Title: Create Party in CBEV System
3 Test ID: [CBEV_0001_PARTY_Registration]
4 Test Description: This test verifies the successful creation of a party in in the CBEV system.
5 Preconditions:
6 • The necessary API endpoints for the CBEV system are available and accessible.
7 • The testing environment is configured with the required templates for party and customer creation.
8 Test Scope:
9 • Register a postpaid customer in the CBEV system.
10 Test Data:
11 • MSISDN (Subscriber Number)
12 • Party template data
13 Test Steps:
14 Provisioning:
15 1. Create a Party:
16 o Send a POST request to the BSSF API to create a party using the party template data.
17 o API Endpoint: "{bae_host:port}/bae/bssfIndividualPartyManagement/v1/individualParty"
18 o Expected Response: "Successful"
19 Expected Results:
20 • Provisioning: The responses for creating a party and a postpaid customer should be "Successful".
21 Postconditions:
22 • Verify that all operations return a successful response.
23 • Ensure the notification is correctly sent as part of the administration step.
24 Pass/Fail Criteria:
25 • Pass: All API operations return a "Successful" response, and the notification is correctly sent.
26 • Fail: Any API operation fails to return a "Successful" response, or the notification is not sent.
27 Test Environment:
28 • CBEV System: [SD-CBEV-ENV]
```



Validate Specification

- Validate Specification
- Generate Code
- Validate Code
- Fix Code
- Describe Code

The Test Specification functionality allows you to either validate an existing test specification or provide details about what you want the test case to achieve. GenAI assists in formatting your input using a predefined template created by the TAR team. This template ensures that your test case is structured correctly to proceed to the next step: Generate Code.

```

1 | Title: Create Party in CBEV System
2 | Test ID: CBEV_0001_PARTY_Registration
3 | Product: CBEV
4 | Version: 23.1
5 | Test Description: This test verifies the successful creation of a party in the CBEV system.
6 | Preconditions:
7 | - The necessary API endpoints for the CBEV system are available and accessible.
8 | - The testing environment is configured with the required templates for party and customer creation.
9 |
10 | Test Scope:
11 | - Register a postpaid customer in the CBEV system.
12 |
13 | Test Steps:
14 |
15 | Step 1:
16 |   Test Data:
17 |   - MSISDN (Subscriber Number)
18 |   - Party template data
19 |
20 |   Test Action:
21 |   - Send a POST request to the BSSF API to create a party using the party template data.
22 |   - API Endpoint: "{bae_host:port}/bae/bssfIndividualPartyManagement/v1/individualParty"
23 |
24 |   Expected Results:
25 |   - The response for creating a party should be "Successful".
26 |
27 | Test Environment:
28 | - System: SD-CBEV-ENV
    
```

Validate please again

Test Specification Valid

The updated test specification contains all the mandatory fields required by the template, including the Title, Product, Version, Test Description, and detailed Test Steps with Test Action and Expected Results. No additional changes are necessary.

Validate Specification

Generate Code

Validate Code

Fix Code

Describe Code

The Generate Code function allows you to automatically generate a Test Script for use in ESSVT, based on the details provided in the Test Specification from the previous step or from a manual description you input directly.

```
1 Title: Create Party in CBEV System
2 Test ID: CBEV_0001_PARTY_Registration
3 Product: CBEV
4 Version: 23.1
5 Test Description: This test verifies the successful creation of a party in the CBEV system.
6 Preconditions:
7 - The necessary API endpoints for the CBEV system are available and accessible.
8 - The testing environment is configured with the required templates for party and customer creation.
9
10 Test Scope:
11 - Register a postpaid customer in the CBEV system.
12
13 Test Steps:
14
15 Step 1:
16 Test Data:
17 - MSISDN (Subscriber Number)
18 - Party template data
19
20 Test Action:
21 - Send a POST request to the BSSF API to create a party using the party template data.
22 - API Endpoint: "{bae_host:port}/bae/bssfIndividualPartyManagement/v1/individualParty"
23
24 Expected Results:
25 - The response for creating a party should be "Successful".
26
27 Test Environment:
28 - System: SD-CBEV-ENV
```



Please generate code for test specification.



Validate Specification

Generate Code

Validate Code

Fix Code

Describe Code

The Generate Code function allows you to automatically generate a Test Script for use in ESSVT, based on the details provided in the Test Specification from the previous step or from a manual description you input directly.

```
1 *** Settings ***
2 Library    HttpxLibrary
3
4 *** Variables ***
5 ${API_URL}  {bae_host:port}/bae/bssfIndividualPartyManagement/v1/individualParty
6
7 *** Test Cases ***
8 CBEV_0001_PARTY_Registration
9   [Documentation]  This test verifies the successful creation of a party in the CBEV system.
10  Step 1
11
12 *** Keywords ***
13 Step 1
14   [Documentation]  Send a POST request to the BSSF API to create a party using the party template data. The
15   Create Session  BSSF_API    ${API_URL}
16   ${response}=   POST On Session  BSSF_API    /    json=${party_template_data}
17   Status Should Be  ${response}    200
18   Request Should Be Successful  ${response}
19
```



Please generate code for test specification.



This test case, `CBEV_0001_PARTY_Registration`, involves sending a POST request to the BSSF API to register a party using data from a party template. The test confirms that the party creation is successful by checking if the API response reflects a successful operation. The `HttpxLibrary` library is used to create a session and send the POST request. The response is then validated to ensure the registration is successful.



Validate Specification

Generate Code

Validate Code

Fix Code

Describe Code

The Validate Code functionality checks whether the Test Script entered in the left-hand box adheres to the design rules set by the TAR Design Rules. GenAI (LLM) applies these rules to verify the script and provides detailed feedback on any required adjustments.

```
1 *** Settings ***
2 Library    HttpxLibrary
3
4 *** Variables ***
5 ${API_URL}  {bae_host:port}/bae/bssfIndividualPartyManagement/v1/individualParty
6
7 *** Test Cases ***
8 CBEV_0001_PARTY_Registration
9   [Documentation]  This test verifies the successful creation of a party in the CBEV system.
10  ...              SLOGAN: Verify party creation in CBEV.
11  ...              PREREQ: BSSF system must be accessible and party template data should be available.
12  ...              STEPS: Step 1 - Send POST request to API to create a party. Verify response status code i
13  [Tags]    CBEV    SD-BCSD-BOS    GENERIC-CONFIG    VALIDFROM-22.1
14  Step 1
15
16 *** Keywords ***
17 Step 1
18   [Documentation]  Send a POST request to the BSSF API to create a party using the party template data. The
19   Create Session  BSSF_API    ${API_URL}
20   ${response}=   POST On Session  BSSF_API    /    json=${party_template_data}
21   Status Should Be    ${response}    200
22   Request Should Be Successful    ${response}
23
```

Please validate this code.

- 1. Naming Convention (Critical Rule):**
 - **Test Case Name:** `CBEV_0001_PARTY_Registration`
 - **Adhering:** The test case name follows the naming convention `__` using snake_case style.
 - **Test Suite Name:** Not provided in the script.
 - **Not Evaluated:** Unable to evaluate as the test suite name is not provided.
- 2. Test Case Tagging (Critical Rule):**
 - **Tags:** No tags are present in the test case.
 - **Not Adhering:** Mandatory tags are missing according to TAR Test Case Tagging rules.



6 hours



15 mins

Q&A

