



# **Designated Function Tests for PolicyCenter Cloud API – Detailed Design**

**Guidewire SurePath Reference Implementation for  
PolicyCenter**



**Prepared by Guidewire**

## Table of Contents

Introduction	5
Overview	5
Intended Audience	5
Applicable Product Versions	5
Terms of Use	5
Installation Guide	5
Zip File Extraction	5
New Files – GT: API Test Content for PolicyCenter Designated Functions	6
Modified Files – GT: API Test Content for PolicyCenter Designated Functions	6
Setting Up PolicyCenter	6
Loading Sample Data	7
Generating Endpoints	7
Start Application with TestUtil APIs Enabled	7
Executing Tests	7
Viewing Test Results	7
Note about running tests in integrated environment	8
Functional Design	8
Test Scenarios	8
Technical Design	8
Behavior Layer	9
Mapping Layer	9
Action Layer	9
Test Suites	10
Document Information	10
Document History	10



## Introduction

### Overview

This package contains GT: API Test Scenarios that provide coverage for PolicyCenter Designated Functions, which should be met as part of the Guidewire Cloud testing standards. These test scenarios are behavior tests written in a common language using Cucumber's Gherkin syntax. The tests use Personal Auto LOB as a representative example, and the tests provide guidance on the approach and patterns compliant with the Guidewire Cloud testing standards. The tests can be used as a reference implementation for other lines of business to meet designated function coverage.

This document provides instructions for using this test content for Guidewire PolicyCenter Cloud Implementation projects.

### Intended Audience

This document is intended for developers and test automation resources who will be implementing, deploying, or extending this reference implementation. It is also intended for implementation business analysts, subject matter experts, and quality assurance analysts who will be using, evaluating, or testing this reference implementation. PMO colleagues also may gain value from this document.

Please read the latest version of the GT: API product documentation, as these documents will guide you in best practices for planning, developing, and executing Functional API tests.

### Applicable Product Versions

These reference tests were implemented on the Jasper release of Guidewire Testing Framework (GT: Framework 2024.02.0) to be run against the Jasper release of PolicyCenter Cloud.

### Terms of Use

We are providing this document and the corresponding Content Module and making it available to you to help accelerate your implementation and provide a standardized configuration pattern for this package. This document and its related content are provided "as-is," which means that we do not offer you any assurances with respect to them. You will be solely responsible for any changes made to your configuration as a result of implementing any of the Content materials. In addition, any mention of known issues or planned future enhancements in this document does not represent formal commitments on product direction by Guidewire.

You also understand that we own the intellectual property rights to any documentation or code that we make available to you. You must not use them in any way that would adversely affect our rights under applicable law.

## Installation Guide

This Content package can be installed by extracting the contained files referenced in this section and placing them in specific directories in your GT: API installation. This section provides specific guidance on modifications made to existing files so that your installation does not inadvertently revert any other code written in those files by your implementation.

The installation procedure assumes that the GT Framework has been installed. For GT Framework installation procedures, refer to the "Install Guidewire Testing Framework" section in *Guidewire Testing Framework Installation*.

### Zip File Extraction

Extract the contents of the Zip file into the `gt-framework` directory. Many files will be extracted. The content of the Zip file is intended to be an overlay on top of the files in `gt-framework/api` and `gt-framework/behavior`. Most of the files are extracted into the corresponding `pc` or `pc/api` directories.

## New Files – GT: API Test Content for PolicyCenter Designated Functions

The following files provided with this package are newly created and can be placed into your installation without any other manual merge activities. If prompted, select **Overwrite** to replace the corresponding files.

- All files in `behavior/features/pc/api/*`.
- All files in `behavior/steps/pc/api/*`.
- All files in `behavior/suites/pc/api/*`.
- The following files in `api/actions/pc/`:
  - All files in `api/actions/pc/account/*`.
  - All files in `api/actions/pc/activity/*`.
  - All files in `api/actions/pc/job/*`.
  - All files in `api/actions/pc/maintenance/*`.
  - All files in `api/actions/pc/notes/*`.
  - All files in `api/actions/pc/policy/*`.
  - `api/actions/pc/emptyRequest.json`
  - `api/actions/pc/headers.js`
  - `api/actions/pc/PolicyUtil.java`
  - `api/actions/pc/user-config.js`

## Modified Files – GT: API Test Content for PolicyCenter Designated Functions

The following files provided with this package exist in the base installation and have been modified for this package. If you have not made any changes to the files, you can overwrite the base files with the ones provided in the Zip file. If you have made changes, you will need to manually merge the changes for each file.

- All files in `api/datacreation/pc/*`.
- The following files in `api/actions/pc/`:
  - All files in `api/actions/pc/admin/*`.
  - All files in `api/actions/pc/groups/*`.
  - All files in `api/actions/pc/organizations/*`.
  - All files in `api/actions/pc/producerCodes/*`.
  - All files in `api/actions/pc/users/*`.
  - `behavior/build.gradle`
  - `behavior/karate-config.js`

## Setting Up PolicyCenter

This content uses the base configuration of PolicyCenter with a few adjustments. You can run tests against a PolicyCenter application that is either running locally or running on the cloud platform. For simplicity, the following instructions assume that PolicyCenter is running on the cloud platform with basic authentication enabled.

## Loading Sample Data

The test content expects ClaimCenter to be running with Sample Data loaded. Log in to the running ClaimCenter instance using the su/gw credentials, press **Alt-Shift-T**, and then select **Internal Tools – CC sample Data** from the tabs on top. Click **Load** for the small data set.

If you are running PolicyCenter in an integrated environment, you must load Sample Data for all applications. Load sample data in the following order: ContactManager, BillingCenter, PolicyCenter, ClaimCenter (load Demo sample data).

## Generating Endpoints

Because the reference test content calls line of business-specific Cloud APIs, you must generate these APIs before you can begin testing. This content relies on the personal auto (PA) line of business (LOB). To correctly set up the LOB, follow the instructions in “The base configuration Personal Auto product” section of the *PolicyCenter Cloud API Developer Guide*.

## Start Application with TestUtil APIs Enabled

GT: API test cases rely on the TestUtil APIs being reachable by the InsuranceSuite applications. See [instructions on how to set up the application with TestUtil APIs](#).

## Executing Tests

To execute tests can either:

- Go to the `behavior/suites/pc/api` directory and open the `PCDesignatedFunctionCucumberScenarioRunner.java` file. This is a test suite class that is configured to run all the behavior tests shipped with this package. Choose **Run...** from the context menu and select the **test** task to run the suite.
- In the terminal window of your IDE, run the command: `./gradlew behavior:runTestSuite -DtestSuite=PCDesignatedFunctionCucumberScenarioRunner`.

## Viewing Test Results

Verify that all scenarios are run successfully. The results are displayed in the terminal window, similar to the following:

```

Run: PCDesignatedFunctionCucumberScenarioRunner
Test Results 1min 31sec
  ✓ pc.api.PCDesignatedFunctionCucumberScenarioRunner 1min 31sec
    ✓ Search for an account with account holder's name 6 sec 70 ms
    ✓ Adding an activity to an account 1 sec 126 ms
    ✓ Adding an activity to a policy 8 sec 563 ms
    ✓ Adding a note to an account 779 ms
    ✓ Adding a note to a policy 6 sec 809 ms
    ✓ Search for a policy with policy number 6 sec 939 ms
    ✓ Search for a policy by account 6 sec 744 ms
    ✓ Creating a Bound submission 6 sec 892 ms
    ✓ Creating an Issued submission 7 sec 63 ms
    ✓ "Issue Policy" activity created when binding a submission 7 sec 330 ms
    ✓ Generating policy number when binding a submission 6 sec 456 ms
    ✓ Checking Underwriting issues when binding submission 2 sec 839 ms
    ✓ Create a draft submission 1 sec 964 ms
    ✓ Creating a Quoted submission 2 sec 532 ms
    ✓ Payment info being determined after a submission is quoted 2 sec 369 ms
    ✓ Cannot quote submission for a vehicle with an invalid VIN due to 2 sec 153 ms
    ✓ Cannot quote a submission for a vehicle with no VIN due to valid 1 sec 660 ms
  ✓ Tests passed: 18 of 18 tests – 1 min 31 sec
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Binding."Issu
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Binding.Gener
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Binding.Gener
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Binding.Check
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Binding.Check
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Creat
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Creat
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Creat
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Creat
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Payme
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Payme
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Canno
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Canno
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Canno
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Submission Quoting.Canno
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Renewal.Start renewal wi
    pc.api.PCDesignatedFunctionCucumberScenarioRunner > Renewal.Start renewal wi
  
```

## Note about running tests in integrated environment

If you are running tests in an integrated environment, you might see test failures due to billing issues the first time you run tests. These errors occur when `loadAdminData` is called for the first time because it creates new data that must synchronize with Billing Center. The `policyDataContainer.json` file is created the first time tests run, and then the same data is reused for later runs. Therefore, this issue will not occur after the first run unless you delete `policyDataContainer.json`. If you are running in TeamCity on a fresh installation each time, you can uncomment `Thread.sleep` in the `loadAdminData` section of the `PolicyAdminData.java` file to allow time for the newly created data to synchronize with Billing Center.

## Functional Design

### Test Scenarios

All GT: API Test Scenarios in this package reside in the `behavior/features/pc/api` directory.

Tests for LOB-Agnostic Designated Functions reside in the `common` subdirectory. Tests for LOB-Specific Designated Functions reside in the `pa` subdirectory. Personal Auto LOB is used as a representative example for LOB-Specific Designated Functions.

- LOB-Agnostic Scenarios:
  - `COM-AccountSearch.feature` - Contains scenarios that test the ability to search for an account.
  - `COM-AddingActivities-Activities.feature` - Contains scenarios that test the ability to add an activity to an account or policy.
  - `COM-AddingNotes-Notes.feature` - Contains scenarios that test the ability to add a note to an account or policy.
  - `COM-PolicySearch.feature` - Contains scenarios that test the ability to search for a policy.
- LOB-Specific Scenarios:
  - `PA-BindSubmission.feature` - Contains scenarios that test the ability to bind a submission.
  - `PA-QuoteSubmission.feature` - Contains scenarios that test the ability to quote a submission.
  - `PA-Renewal.feature` - Contains scenarios that test the ability to identify the policies due for renewal.

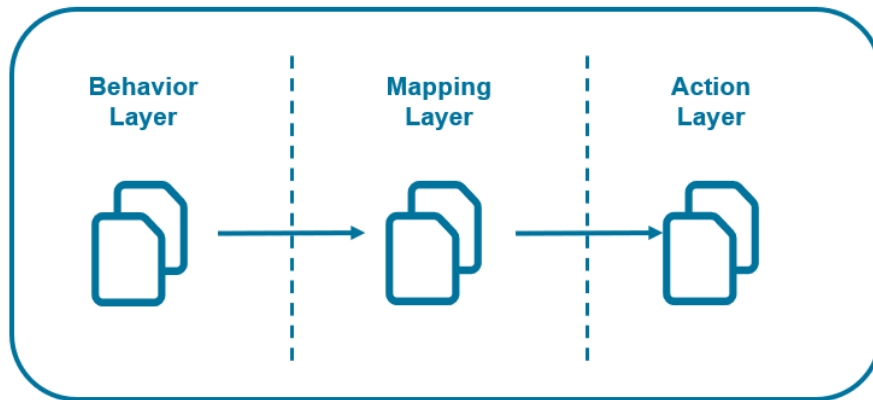
If the implementation utilizes Guidewire Rating Management, and the `PCRatingPlugin` has been enabled for use in API tests, you must modify the implementation of the scenarios in the following feature files to reflect the actual rating plugin implementation:

- `COM-AddingActivities-Activities.feature`
- `COM-AddingNotes-Notes.feature`
- `COM-PolicySearch.feature`
- `PA-BindSubmission.feature`
- `PA-QuoteSubmission.feature`
- `PA-Renewal.feature`

## Technical Design

The behavior tests included with this package use the following design for easier maintenance and to be compliant with the cloud testing standards.





## Behavior Layer

This layer contains Cucumber test scenarios expressed in common language using Gherkin Syntax. All feature files that contain the Cucumber scenarios are stored in the `behavior/features/pc/api` directory:

- `behavior/features/pc/api/*`
  - `common/*` - Behavior tests for LOB-Agnostic Designated Functions .
  - `pa/*` - Behavior tests for Personal Auto LOB-Specific Designated Functions.

## Mapping Layer

This layer contains step scenarios that map the Cucumber scenarios to action scenarios that make actual API calls. The mapping layer provides a strong separation between the business description of behaviors and the implementation details for those behaviors. All feature files that contain the step scenarios are stored in the `behavior/steps/pc/api` directory:

- `behavior/steps/pc/api/`
  - `account/*` - Step scenarios that operate on Accounts.
  - `activity/*` - Step scenarios that operate on Activities.
  - `admin/*` - Step scenarios that operate on Admin data creation.
  - `job/*` - Step scenarios that operate on Policy Jobs.
  - `maintenance/*` - Step scenarios that relate to system maintenance, such as running a batch process.
  - `note/*` - Step scenarios that operate on Notes.
  - `policy/*` - Step scenarios that operate on Policies.

## Action Layer

This layer contains simple Karate scenarios that provide implementation detail and make API calls to test business behaviors. All feature files that contain action scenarios are stored in the `api/actions/pc` directory:

- `api/actions/pc`
  - `account/*` - Action scenarios and API request payloads that operate on Accounts.
  - `activity/*` - Action scenarios and API request payloads that operate on Activities.
  - `job/*` - Contains action scenarios and API request payloads that operate on Policy Jobs.

- `maintenance/*` - Action scenarios and API request payloads that perform system maintenance, such as running a batch process.
- `note/*` - Action scenarios and API request payloads that operate on Notes.
- `policy/*` - Action scenarios and API request payloads that operate on Policies.

## Test Suites

Cucumber scenarios in the behavior layer are grouped by `@DesignatedFunction` tag and tags that identify the designated functions targeted by tests. All test suites are stored in the `behavior/suites/pc/api/` directory:

- `behavior/suites/pc/api/*`
  - `designatedfunctions/*`
    - `PCAccountSearchCucumberScenarioRunner.java` - Test Suite that runs all scenarios targeting “Searching for an account” Designated Function.
    - `PCAddActivityCucumberScenarioRunner.java` - Test Suite that runs all scenarios targeting “Adding activities” Designated Function.
    - `PCAddNoteCucumberScenarioRunner.java` - Test Suite that runs all scenarios targeting “Adding notes” Designated Function.
    - `PCBindSubmissionCucumberScenarioRunner.java` - Test Suite that runs all scenarios targeting “Binding a policy for a submission” Designated Function.
    - `PCIssueSubmissionCucumberScenarioRunner.java` - Test Suite that runs all scenarios targeting “Issuing a policy for a submission” Designated Function.
    - `PCPolicySearchCucumberScenarioRunner.java` - Test Suite that runs all scenarios targeting “Searching for a policy” Designated Function.
    - `PCQuoteSubmissionCucumberScenarioRunner` - Test Suite that runs all scenarios targeting “Creating a Quote for a submission” Designated Function.
    - `PCRenewalCucumberScenarioRunner` - Test Suite that runs all scenarios targeting “Renewal processing” Designated Function.
    - `PCDesignatedFunctionCucumberScenarioRunner.java` - Test Suite that runs all scenarios targeting all Designated Functions.

## Document Information

### Document History

Version Number	Revision Date	Summary of Changes
1	June 2021	Initial version
2	November 2021	Updated version for the Dobson release (2021.11)
3	May 2022	Updated version for the Elysian release (2022.05)
4	April 2023	Updated version for the Garmisch release (2023.02)
5	April 2024	Updated version for the Jasper release (2024.02)

