

CodeArts TestPlan

Service Overview

Issue	03
Date	2026-08-24



Copyright © Huawei Cloud Computing Technologies Co., Ltd. 2026. All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Cloud Computing Technologies Co., Ltd.

Trademarks and Permissions



HUAWEI and other Huawei trademarks are the property of Huawei Technologies Co., Ltd.

All other trademarks and trade names mentioned in this document are the property of their respective holders.

Notice

The purchased products, services and features are stipulated by the contract made between Huawei Cloud and the customer. All or part of the products, services and features described in this document may not be within the purchase scope or the usage scope. Unless otherwise specified in the contract, all statements, information, and recommendations in this document are provided "AS IS" without warranties, guarantees or representations of any kind, either express or implied.

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Huawei Cloud Computing Technologies Co., Ltd.

Address: Huawei Cloud Data Center Jiaoxinggong Road
Qianzhong Avenue
Gui'an New District
Gui Zhou 550029
People's Republic of China

Website: <https://www.huaweicloud.com/intl/en-us/>

Contents

1 What Is CodeArts TestPlan.....

1

2 Advantages.....

3

3 Application Scenarios.....

5

4 Features.....

8

5 Security.....

10

5.1 Authentication and Access Control.....

10

5.2 Data Protection Technologies.....

10

5.3 Auditing and Logging.....

11

5.4 Certificates.....

11

6 Constraints.....

13

1 What Is CodeArts TestPlan

Overview

CodeArts TestPlan is a one-stop test management platform developed by Huawei, covering the entire test process of plan, design, cases, execution, and evaluation. The platform originates from Huawei's years of high-quality software test engineering methodologies and practices, and aims to help enterprises with collaborative, efficient, and trustworthy test activities before product release.

- **Test design**

Visualized and heuristic test design is performed on mind maps. Requirements are converted to test scenarios, test points, and then draft test cases which can be archived later. Finally, an overall test scheme is output.

- **Test management**

CodeArts TestPlan incorporates concepts such as full-lifecycle tracing, multi-role collaboration, agile tests, and requirement-driven tests. It manages requirements, tasks, progress, coverage, results, bugs, test reports, and dashboards at one stop. You can customize test management for different teams and processes and evaluate product quality from multiple perspectives.

- **Automated API testing**

You can generate API script templates by importing API URLs or Swagger files, and then quickly orchestrate API automation test cases by using the templates. Tests can be integrated to pipelines. Microservice tests are supported. You do not have to code test cases. The technical barrier is low. Different roles, such as API developers, API consumers, testers, and service personnel, can run tests with ease. You can import a Swagger API definition in a few clicks to automatically generate a script template, based on which you can orchestrate and manage automated test cases of APIs. This feature supports HTTP and HTTPS, a visualized case editing interface, various preset check points, built-in variables, custom variables, parameter transfer, and continuous automated testing.

Key Features

- **Case management**

Manual test cases and API automation test cases are designed in a unified manner. Test case classification, prerequisites, procedure, and expected results are provided to guide test case design.

- **Test suite management**

Assemble test cases into manual test suites or API automation test suites. A test suite manages a group of test cases and can be used to perform multiple rounds or iterative regression tests. You can create manual or API automation suites based on the test case type.

- **API automation test cases**

API automation test cases simulate an HTTP client to establish a session with the server and send a request to the target API or web page to complete the API function test. An API test case contains a series of test requests, test check points, and test logic.

 NOTE

By default, only APIs that can be accessed from the public network can be tested. For details about the enterprise intranet API test solution, contact the customer service.

- **Manual test case execution and results setting**

You can set results step by step or in batches, apply the last execution result in one-click mode, and add screenshots to the result. Reproduction procedure can be automatically filled in during defect creation.

- **API automation test case execution and execution history**

- Case execution: Test cases can be executed in parallel or serial mode or in the pipeline. Quality gate can be configured.
- Execution history: Each execution result and logs are recorded in detail.

- **Quality report**

You can view the requirement coverage, defect distribution, case pass rate, and case completion rate. You can also customize reports.

2 Advantages

Large-Scale Efficient Collaborative Test

For high-quality product release, this one-stop test management platform integrates test management and automated testing, and enables hierarchical management of hundreds of millions of test cases, as well as efficient collaboration on test activities including test case design, test execution, bug submission, and statistic reports.

Test resources can be synchronized or migrated among versions, enabling accumulation and reuse of test assets.

Bidirectional Traceability

Test requirements, cases, defects, and results are associated with each other, and changes are logged. In this way, you can visualize the evidence chain of the test process, monitor and identify risks in time, accelerate tracking and closure, and effectively reduce missing tests from organization and project perspectives.

Heuristic Design with Mind Maps

The service provides mind map design templates for different test types. Requirements can be broken down into scenarios, test points, and test cases to improve test completeness and reduce product test omissions.

It offers data factors to generate test cases covering all value combinations, avoiding incomplete test coverage caused by manual operations.

Automated Testing

CodeArts TestPlan quickly orchestrates APIs based on API URLs or Swagger documents, integrates with CodeArts Pipeline, and supports microservice and layered automated tests. Execution strategies can be scheduled flexibly to improve test execution efficiency, which shortens the product time to marketing.

Multiple groups and rounds of automated tests can be driven by data sets imported with a few clicks.

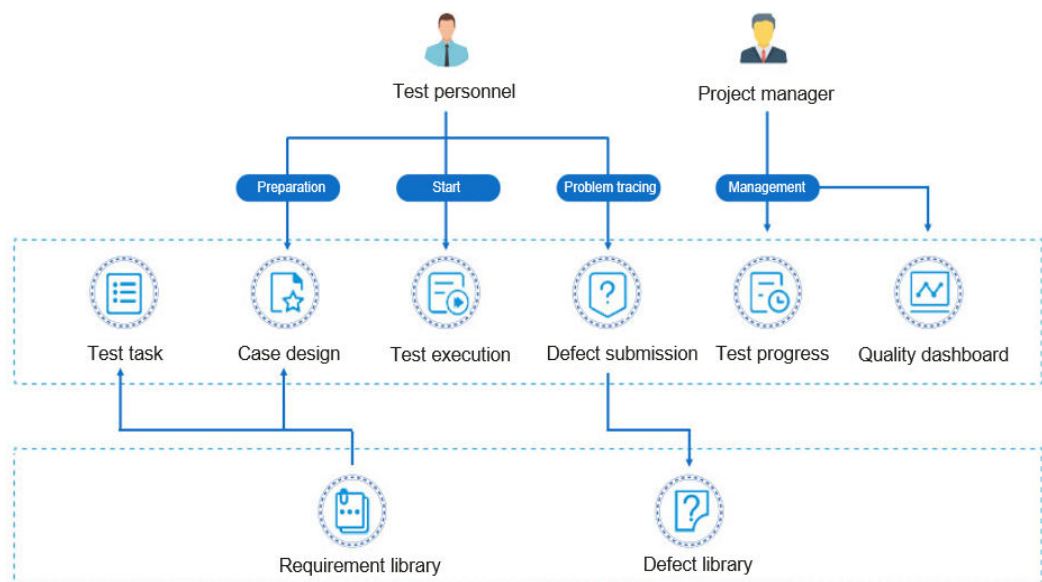
Visualized Design and Measurement

The quality report displays real-time test statistics on the test progress, bugs, and requirement coverage for evaluating test quality and making rollout decision.

3 Application Scenarios

Software Test Quality Management

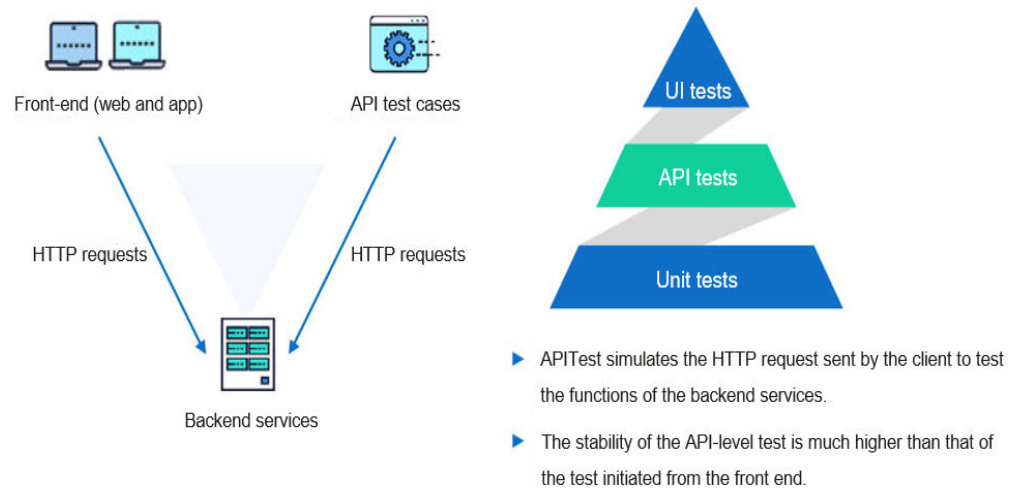
- Higher test efficiency and coverage
Agile test processes are available for teams of different scales. The requirement-driven method prevents missing or false testing.
- Efficient collaboration between development and testing
Different roles can collaborate efficiently with bidirectional tracing of requirements, cases, and bugs.
- Multi-dimensional quality dashboards
A multi-dimensional quality dashboard facilitates comprehensive quality evaluation and efficient product acceptance.



Continuous Automated Testing

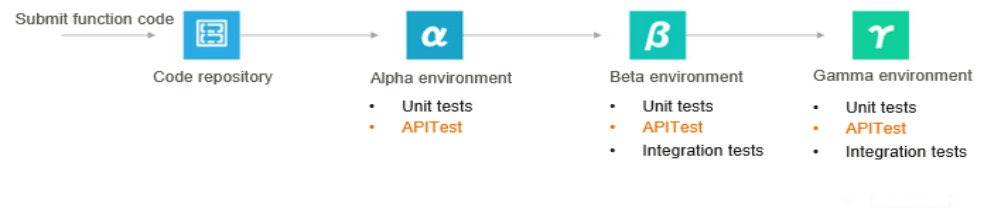
- Automated API tests
The test pyramid is applied to run automated function tests on APIs.

Compared with UI tests, API tests have low development cost, short running period, and high running stability, implementing quick and accurate test feedback.



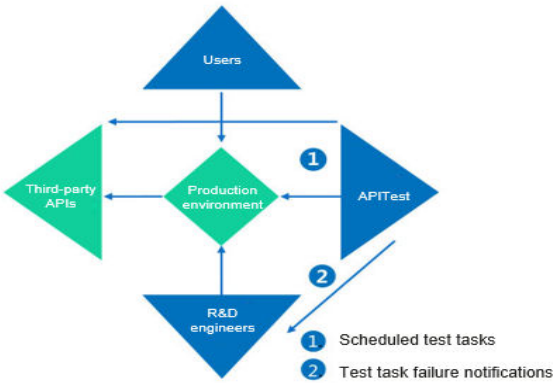
- Continuous integration of automated tests

Continuous integration is achieved through pipelines that integrate builds, deploy, and tests. Problems can be detected in time during quick tests, preventing faulty artifacts from moving on to the next phase or environment.



- Monitoring production environment and third-party dependency APIs

24/7 API-level test monitoring is established for monitoring products or third-party dependency APIs in the production environment to detect live network problems before customers do and rectify the problems in time.



24/7 monitoring of the health status of services in the production environment and third-party dependent APIs, earlier problem detection than users, and notifications to engineers to solve the problems in a timely manner

4 Features

Table 4-1 Features

Service	Feature
CodeArts TestPlan	• Test design: Uses heuristic mind maps to design and review test cases, which is more intuitive and efficient. You can directly import Xmind files to generate mind maps and edit them online. On mind maps, you can design tests on four layers (feature, scenario, function point, and case), cover all test scenarios by using data factors, and generate test cases in batches in one click. All test types are covered, such as function, API, and security tests. You can use test strategy templates to create test cases quickly, or customize templates and save them as your own test assets. • Test management: In this mature test case management system, you can design and execute test cases, and view quality reports to improve efficiency. Changes can be recorded to avoid missing or false tests, facilitate tracing and auditing, and standardize test process. This feature incorporates concepts such as full-lifecycle tracing, test planning, multi-role collaboration, agile testing, and requirement-driven testing. It allows one-stop management of test task assignment, execution, progress, coverage rate, results, reports, and dashboards. You can tailor test management for different teams and processes. • Automated API test: You can quickly write API test cases based on the API script template generated by API URLs or Swagger files. Tests can be integrated to pipelines. Microservice tests are supported. You do not have to code test cases. The technical barrier is low. Different roles, such as API developers, API consumers, testers, and service personnel, can run tests with ease. You can import a Swagger API definition in a few clicks to automatically generate a script template, based on which you can orchestrate and manage automated test cases of APIs. This feature supports HTTP and HTTPS, a visualized case editing interface, various preset check points, built-in variables, custom

Service	Feature
	variables, parameter transfer, and continuous automated testing.

5 Security

5.1 Authentication and Access Control

Authentication

You can access CodeArts TestPlan using its UI, APIs, and SDKs. Regardless of the access mode, your requests are sent through REST APIs provided by CodeArts TestPlan.

CodeArts TestPlan APIs can be accessed only after requests are authenticated.

CodeArts TestPlan supports two authentication modes:

- Token: Requests are authenticated using tokens. By default, token authentication is required to access the CodeArts TestPlan console.
- AK/SK: Requests are encrypted using an AK/SK. This method is recommended because it provides higher security than token-based authentication.

Access Control

CodeArts TestPlan controls user operations in two ways.

- Role permission control: Roles and permissions are required for adding, deleting, modifying, and querying objects such as test plans, cases, suites, reports, and customized settings of CodeArts TestPlan.
- Fine-grained permission control (IAM): Operations such as querying tenant projects, setting project creators, and managing tenant project member lists require fine-grained authorization from IAM.

5.2 Data Protection Technologies

CodeArts TestPlan uses multiple methods to secure data.

Method	Description
Transmission encryption (HTTPS)	To secure data transmission, CodeArts TestPlan uses HTTPS.
Personal data protection	This service controls access to data and records logs for operations performed on the data.
Privacy protection	CodeArts TestPlan does not consume or store sensitive user data.
Data destruction	When you delete service data or deregister your account: • Non-key data is physically deleted in real time. • Key data will be marked as soft deleted and then physically deleted 15 days later.

5.3 Auditing and Logging

Auditing

Cloud Trace Service (CTS) records operations on the cloud resources in your account. You can use the logs generated by CTS to perform security analysis, track resource changes, audit compliance, and locate faults.

After you enable CTS and configure a tracker, CTS can record management and data traces of CodeArts TestPlan for auditing.

For details about how to enable and configure CTS, see [Getting Started with CTS](#).

Logs

Log Tank Service (LTS) provides one-stop log collection, log search in seconds, massive log storage, log structuring and transfer. Graphical application O&M, visual analysis of network logs, and operation analysis make organization tracking easier.

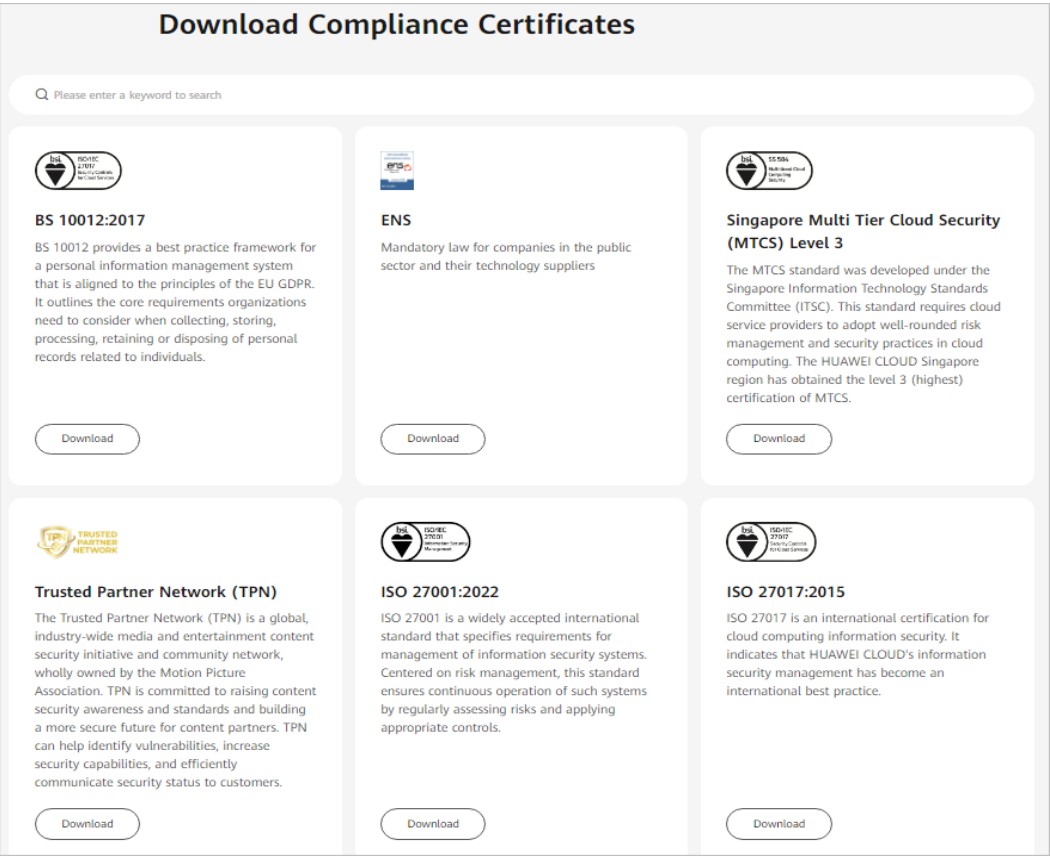
For analysis, CodeArts TestPlan records system running logs to LTS in real time and stores the logs for three days.

5.4 Certificates

Compliance Certificates

Huawei Cloud services and platforms have obtained various security and compliance certifications from authoritative organizations, such as International Organization for Standardization (ISO). You can [download](#) them from the console.

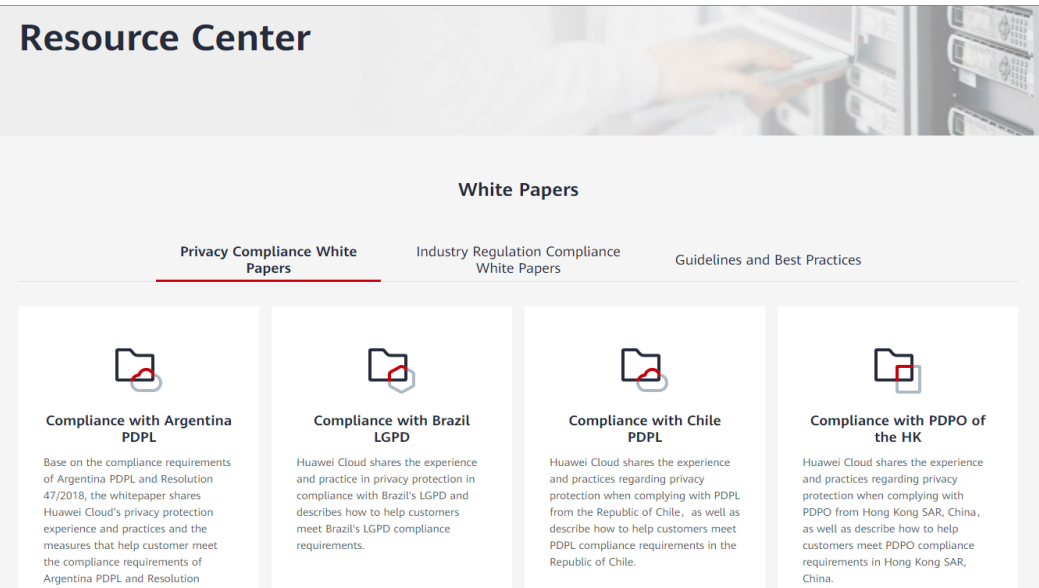
Figure 5-1 Downloading compliance certificates



Resource Center

Huawei Cloud also provides the following resources to help users meet compliance requirements. For details, see [Resource Center](#).

Figure 5-2 Resource center



6 Constraints

Table 6-1 describes the constraints on the use of CodeArts TestPlan.

Table 6-1 Constraints

Category	Item	Limit
Browser	Type	The following browsers are supported: • Chrome: The latest three stable versions are supported and tested. • Firefox: The latest three stable versions are supported and tested. • Edge: Windows 10 uses Edge by default. The latest three stable versions are supported and tested. Chrome and Firefox are recommended.
Resolution	Resolution	1280 × 1024 or higher is recommended.
Constraints on a project	Maximum test cases per version	20,000
	Maximum versions per project (including the baseline)	6
	Maximum size of a single attachment (MB)	10
	Maximum tags per test case	10
	Maximum directories per project	5,000

Category	Item	Limit
	Maximum test cases per requirement	500
	Maximum requirements per test plan	100
	Maximum test cases per test plan	15,000
	Maximum custom states per manual test case	10
	Maximum custom results per manual test case	10
	Maximum custom states per manual test suite	10
	Maximum custom results per manual test suite	10
	Maximum executions per manual test case	10,000
	Maximum environments for auto API tests per project	50
	Maximum parameters per auto API test environment	150
	Maximum duration per API test task (minute)	10
	Maximum test cases per manual test suite	1,000
	Maximum test cases per auto API test suite	150
	Maximum test suites per project	10,000
	Maximum mind maps per project	10,000
	Maximum breadth (nodes) per mind map	40
	Maximum size of a file or image that can be uploaded to a mind map (MB)	20

Category	Item	Limit
	Maximum size of an Xmind file that can be imported to a mind map (MB)	20
	Maximum test cases that can be archived at a time per mind map	500
	Maximum factors in the test factor center	5,000
	Maximum directories in the test factor center	1,000
	Maximum directory depth of the test factor center	10