

# **Application Performance Management Parameter Information Product Documentation**



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# Parameter Information

## Components and Frameworks Supported by OpenTelemetry Scheme

Last updated : 2024-06-19 16:31:30

### Java Versions and Frameworks Supported by the OpenTelemetry Java Agent Enhanced Edition

#### Supported Java Versions

Tencent Cloud OpenTelemetry Java Agent Enhanced Edition supports Java versions 8 and above, with Java 8, Java 11, Java 17, and other LTS versions recommended.

#### Supported Dependencies and Frameworks

Tencent Cloud OpenTelemetry Java Agent Enhanced Edition performs automatic Event Tracking on commonly used open-source components and frameworks, including Servlet, Spring Web MVC, Apache Dubbo, etc. For a detailed list, see [List of Dependencies and Frameworks Supported by OpenTelemetry Java Agent](#).

In addition, Tencent Cloud OpenTelemetry Java Agent Enhanced Edition also enhances Event Tracking for XXL-JOB 2.2.0+ and Apache Thrift 0.9.3+.

#### Supported Application Servers

Tencent Cloud OpenTelemetry Java Agent Enhanced Edition supports commonly used application servers. For a detailed list, see [List of Application Servers Supported by OpenTelemetry Java Agent](#).

### Components and Frameworks Supported by OpenTelemetry-Go Scheme

#### Supported Go Versions

The official Go versions supported are currently 1.21 and 1.22. For lower versions, connecting is theoretically possible, but the community does not maintain full compatibility. For details, see the community [Compatibility Description](#).

#### Supported Dependencies and Frameworks

For commonly used Go-related dependency libraries and frameworks, the OpenTelemetry-Python Scheme offers an SDK-based reporting solution. For a detailed list, see the [Complete List](#) provided by the community.

## Components and Frameworks Supported by OpenTelemetry-Python Scheme

### Supported Python Versions

3.6+

### Supported Dependencies and Frameworks

The OpenTelemetry-Python Scheme provides automatic Event Tracking for commonly used Python-related dependency libraries and frameworks, including Flask, Django, FastAPI, MySQL Connector, etc., enabling link information reporting without needing to modify the code. For other dependency libraries and frameworks that support automatic Event Tracking, see the [Complete List](#) provided by the community.

## Components and Frameworks Supported by OpenTelemetry-JavaScript Scheme

### Supported Node.js Versions

Node.JS v14+

### Supported Dependencies and Frameworks

The OpenTelemetry-JavaScript Scheme provides automatic Event Tracking for commonly used Node.js dependency libraries and frameworks, enabling link information reporting without needing to modify the code. For other dependency libraries and frameworks that support automatic Event Tracking, see the [Complete List](#) provided by the community.

# Frameworks and Components Supported by SkyWalking

## Frameworks Supported by Java Agent

Last updated : 2024-05-29 10:05:27

This document lists the Java frameworks and components supported by APM.

Component	Project
HTTP Server	<a href="#">Tomcat 7</a> <a href="#">Tomcat 8</a> <a href="#">Tomcat 9</a> <a href="#">Spring Boot Web 4.x</a> Spring MVC 3.x, 4.x 5.x with servlet 3.x <a href="#">Nutz Web Framework 1.x</a> <a href="#">Struts2 MVC 2.3.x -&gt; 2.5.x</a> <a href="#">Resin 3</a> <a href="#">Resin 4</a> <a href="#">Jetty Server 9</a> <a href="#">Spring WebFlux 5.x</a> <a href="#">Undertow 1.3.0.Final -&gt; 2.0.27.Final</a> <a href="#">RESTEasy 3.1.0.Final -&gt; 3.7.0.Final</a> <a href="#">Play Framework 2.6.x -&gt; 2.8.x</a> <a href="#">Light4J Microservices Framework 1.6.x -&gt; 2.x</a> <a href="#">Netty SocketIO 1.x</a>
HTTP Client	<a href="#">Feign 9.x</a> <a href="#">Netflix Spring Cloud Feign 1.1.x -&gt; 2.x</a> <a href="#">Okhttp 2.x -&gt; 3.x -&gt; 4.x</a> <a href="#">Apache httpcomponent HttpClient 2.0 -&gt; 3.1, 4.2, 4.3, 5.0, 5.1</a> <a href="#">Spring RestTemplate 4.x</a> <a href="#">Jetty Client 9</a> <a href="#">Apache httpcomponent AsyncClient 4.x</a> <a href="#">AsyncHttpClient 2.1+</a> JRE HttpURLConnection
HTTP Gateway	<a href="#">Spring Cloud Gateway 2.0.2.RELEASE -&gt; 3.x</a>
JDBC	MySQL Driver 5.x, 6.x, 8.x Oracle Driver H2 Driver 1.3.x -> 1.4.x <a href="#">ShardingSphere 3.0.0, 4.0.0, 4.0.1, 4.1.0, 4.1.1, 5.0.0-beta</a> PostgreSQL Driver 8.x, 9.x, 42.x

	<a href="#">Mariadb Driver 2.x</a> , 1.8 <a href="#">InfluxDB 2.5</a> -> 2.17 <a href="#">Mssql-Jtds 1.x</a> <a href="#">Mssql-jdbc 6.x</a> -> 8.x <a href="#">ClickHouse-jdbc 0.3.x</a> <a href="#">Apache-Kylin-Jdbc 2.6.x</a> -> 3.x -> 4.x
RPC Frameworks	<a href="#">Dubbo 2.5.4</a> -> 2.6.0 <a href="#">Dubbox 2.8.4</a> <a href="#">Apache Dubbo 2.7.x</a> -> 3.x <a href="#">Motan 0.2.x</a> -> 1.1.0 <a href="#">gRPC 1.x</a> <a href="#">Apache ServiceComb Java Chassis 0.1</a> -> 0.5, 1.x <a href="#">SOFARPC 5.4.0</a> <a href="#">Armeria 0.63.0</a> -> 0.98.0 <a href="#">Apache Avro 1.7.0</a> - 1.8.x <a href="#">Finagle 6.44.0</a> -> 20.1.0 <a href="#">Brpc-Java 2.3.7</a> -> 2.5.3 <a href="#">Thrift 0.10.0</a> -> 0.12.0 <a href="#">Apache CXF 3.x</a> <a href="#">JSONRPC4J 1.2.0</a> -> 1.6
MQ	<a href="#">RocketMQ 4.x</a> <a href="#">Kafka 0.11.0.0</a> -> 2.8.0 <a href="#">Spring-Kafka</a> Spring Kafka Consumer 1.3.x -> 2.3.x <a href="#">ActiveMQ 5.10.0</a> -> 5.15.4 <a href="#">RabbitMQ 5.x</a> <a href="#">Pulsar 2.2.x</a> -> 2.9.x
NoSQL-Redis	<a href="#">Jedis 2.x</a> <a href="#">Redisson</a> Easy Java Redis client 3.5.2+ <a href="#">Lettuce 5.x</a>
NoSQL-MongoDB	<a href="#">MongoDB Java Driver 2.13-2.14</a> , 3.4.0-3.12.7, 4.0.0-4.1.0
NoSQL-Memcached Client	<a href="#">Spymemcached 2.x</a> <a href="#">Xmemcached 2.x</a>
NoSQL-Elasticsearch	<a href="#">transport-client 5.2.x-5.6.x</a> <a href="#">transport-client 6.7.1-6.8.4</a> <a href="#">transport-client 7.0.0-7.5.2</a> <a href="#">rest-high-level-client 6.7.1-6.8.4</a> <a href="#">rest-high-level-client 7.0.0-7.5.2</a>
NoSQL-Solr	<a href="#">SolrJ 7.x</a>
NoSQL-Cassandra 3.x	<a href="#">cassandra-java-driver 3.7.0-3.7.2</a>

NoSQL-HBase	<a href="#">hbase-client</a> HTable 1.0.0-2.4.2
NoSQL-Neo4j	<a href="#">Neo4j-java</a> 4.x
Service Discovery	<a href="#">Netflix Eureka</a>
Distributed Coordination	<a href="#">Zookeeper</a> 3.4.x (Optional <sup>2</sup> & Except 3.4.4)
Spring Ecosystem	Spring Bean annotations 3.x and 4.x Spring Core Async SuccessCallback /FailureCallback /ListenableFutureCallback 4.x Spring Transaction 4.x and 5.x
Hystrix	1.4.20 -> 1.5.18
Sentinel	1.7.0 -> 1.8.1
Scheduler	<a href="#">Elastic Job</a> 2.x <a href="#">Apache ShardingSphere-Elasticjob</a> 3.x <a href="#">Spring @Scheduled</a> 3.1+ <a href="#">Quartz Scheduler</a> 2.x <a href="#">XXL Job</a> 2.x
Canal	1.0.25 -> 1.1.2
JSON	<a href="#">GSON</a> 2.8.x <a href="#">Fastjson</a> 1.2.x <a href="#">Jackson</a> 2.x
Vert.x Ecosystem	Vert.x Eventbus 3.2+ Vert.x Web 3.x
Thread Schedule Framework	<a href="#">pring @Async</a> 4.x and 5.x <a href="#">Quasar</a> 0.7.x JRE Callable and Runnable
Cache	<a href="#">Ehcache</a> 2.x <a href="#">GuavaCache</a> 18.x -> 23.x
Kotlin	<a href="#">Coroutine</a> 1.0.1 -> 1.3.x
GraphQL	<a href="#">Graphql</a> 8.0 -> 15.x
Pool	<a href="#">Apache Commons DBCP</a> 2.x <a href="#">Alibaba Druid</a> 1.x <a href="#">HikariCP</a> 3.x -> 4.x
Logging Framework	<a href="#">log4j</a> 2.x



	<a href="#">log4j2</a> 1.2.x <a href="#">logback</a> 1.2.x
ORM	<a href="#">MyBatis</a> 3.4.x -> 3.5.x

# Frameworks Supported by Python Agent

Last updated : 2023-12-25 16:04:30

This document lists the Python frameworks and components supported by APM.

Project	Python Version - Lib Version	Plugin Name
<a href="#">AIOHTTP</a>	Python >=3.10 - NOT SUPPORTED YET; Python >=3.6 - ['3.7.4'];	sw_aiohttp
<a href="#">Celery</a>	Python >=3.6 - ['5.1'];	sw_celery
<a href="#">Django</a>	Python >=3.6 - ['3.2'];	sw_django
<a href="#">Elasticsearch</a>	Python >=3.6 - ['7.13', '7.14', '7.15'];	sw_elasticsearch
<a href="#">Hug</a>	Python >=3.10 - ['2.5', '2.6']; Python >=3.6 - ['2.4.1', '2.5', '2.6'];	sw_falcon
<a href="#">Flask</a>	Python >=3.6 - ['1.1', '2.0'];	sw_flask
<a href="#">http.server</a>	Python >=3.6 - ['*'];	sw_http_server
<a href="#">Werkzeug</a>	Python >=3.6 - ['1.0.1', '2.0'];	sw_http_server
<a href="#">kafka-python</a>	Python >=3.6 - ['2.0'];	sw_kafka
<a href="#">psycopg-binary</a>	Python >=3.6 - ['3.0'];	sw_psycopg
<a href="#">psycopg2-binary</a>	Python >=3.10 - NOT SUPPORTED YET; Python >=3.6 - ['2.9'];	sw_psycopg2
<a href="#">PyMongo</a>	Python >=3.6 - ['3.11'];	sw_pymongo
<a href="#">PyMySQL</a>	Python >=3.6 - ['1.0'];	sw_pymysql
<a href="#">Pyramid</a>	Python >=3.6 - ['1.10', '2.0'];	sw_pyramid
<a href="#">Pika</a>	Python >=3.6 - ['1.2'];	sw_rabbitmq
<a href="#">Redis</a>	Python >=3.6 - ['3.5'];	sw_redis
<a href="#">Requests</a>	Python >=3.6 - ['2.26', '2.25'];	sw_requests
<a href="#">Sanic</a>	Python >=3.10 - NOT SUPPORTED YET; Python >=3.7 - ['20.12']; Python >=3.6 - ['20.12'];	sw_saniconic

Tornado	Python >=3.6 - ['6.0', '6.1'];	sw_tornado
urllib3	Python >=3.6 - ['1.26', '1.25'];	sw_urllib3
urllib.request	Python >=3.6 - ['*'];	sw_urllib_request

**Note:**

The Celery server running "celery-A..." needs to run with the HTTP protocol, because Celery uses multiprocessing by default, which is incompatible with the current gRPC protocol implementation in SkyWalking.

# Agent Version Information

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This document presents the version information of Tencent Cloud's self-developed APM agent and provides a download address. For details on agents or SDKs provided by the open-source community, including OpenTelemetry, Skywalking, Jaeger, etc., see the corresponding open-source community documentation.

## Tencent Cloud OpenTelemetry Java Agent Enhanced Edition

Tencent Cloud OpenTelemetry Java Agent Enhanced Edition is based on the openTelemetry-java-instrumentation from the open-source community and developed further under Apache License 2.0. It includes a reference to the OpenTelemetry License within the agent packet. Building on the open-source agent, the Tencent Cloud OpenTelemetry Java Agent Enhanced Edition has made significant improvements in areas such as Event Tracking density, advanced diagnosis, performance protection, and enterprise-level capabilities. In addition, the Tencent Cloud OpenTelemetry Java Agent Enhanced Edition also adheres to the OpenTelemetry protocol standards. When the automatic Event Tracking does not meet user scenarios, you can see [OpenTelemetry official documentation](#) for customizing business Event Tracking.

Versions	Release Notes	Release Date	VPC Private Network Download Address	
1.16-20240328 (Latest Version) <a href="#">Download</a> <a href="#">Probe</a>	Optimize agent stability in high-load scenarios.	March 28, 2024	Singapore	

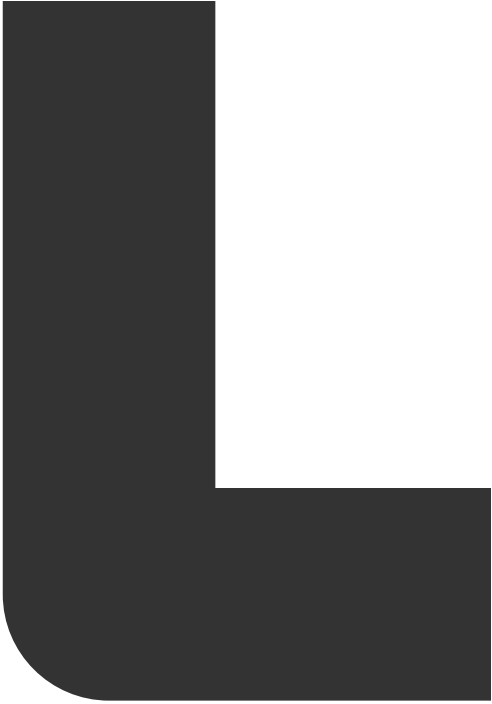
`https://tencentcloud-otel-java-agent-s`

					
					<a href="https://tencentcloud-otel-java-agent-h">https://tencentcloud-otel-java-agent-h</a>

1.16-20240305 <a href="#">Download Probe</a>	1. Support for thread pool, connection pool metric reporting. 2. Analyze the root cause of CPU/memory high load issues through flame graphs.	March 5, 2024	Singapore	
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				<div>https://tencentcloud-otel-java-agent-s</div>
			Hong Kong (China)	<div></div>



				 <a href="https://tencentcloud-otel-java-agent-h">https://tencentcloud-otel-java-agent-h</a>
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## Agent Support Cycle

To continuously enhance the product capabilities and stability of Tencent Cloud OpenTelemetry Java Agent Enhanced Edition, support new versions of open-source components, and promptly fix agent defects and security vulnerabilities, APM will continuously iterate the agent, regularly releasing new versions. It is recommended to follow the release cadence and update the agent version timely.

Each officially released Tencent Cloud OpenTelemetry Java Agent Enhanced Edition, from the release date, has a fixed support period of 6 months. Starting from the 4th month, APM will notify you in the console that the agent is nearing expiration. From the 6th month, APM will notify you in the console that the agent has expired. After the agent expires, it will not affect the use of APM; if you need technical support for the agent, it is recommended to upgrade the agent version first. For upgrading, see [Upgrading Agent Version](#).

## Other Agents

Besides Tencent Cloud OpenTelemetry Java Agent Enhanced Edition, other agents are provided by the open-source community, including the OpenTelemetry community, and Skywalking community. See the connect guide for agent installation.

For applications deployed on TKE, the Tencent Cloud Observability team provides an Operator scheme: tencent-opentelemetry-operator. Built upon the community opentelemetry-operator, it enables agent auto-injection, facilitating

applications to connect APM quickly. Currently, tencent-opentelemetry-operator supports the following agent versions:

Language	Agent Versions
Python	0.41b0
Node.js	0.44.0
.Net	1.2.0