# MicroProfile 6.0

## 22nd Dec, 2022

MicroProfile Community

# What is MicroProfile?

- MicroProfile is an open-source community specification for Enterprise Java microservices

- A community of individuals, organizations, and vendors collaborating within an open source Eclipse Foundation Working Group to bring microservices to the Enterprise Java  community

# MicroProfile Working Group

- In October 1st, 2020, MicroProfile became a member of the Eclipse Working Group to close its intellectual property gap

- The MicroProfile Charter defines the MicroProfile Working Group vision and scope, governance, membership, and more.

- MicroProfile component specifications follow the MicroProfile Specification Process, a compatible specialization of the Eclipse Specification Process.

- MicroProfile 4.1 is the first release delivered under the MicroProfile Working Group with compatible implementation declared

# Release Compatible Implementation

Defined the compatible implementation for MicroProfile 6.0

- [Required] Passing the 8 MicroProfile Specification TCKs and Jakarta EE 10 Core Profile TCKs
  - MicroProfile Config 3.0
  - MicroProfile Fault Tolerance 4.0
  - MicroProfile Health 4.0
  - MicroProfile JWT Authentication 2.1
  - MicroProfile Metrics 5.0
  - MicroProfile OpenAPI 3.0
  - MicroProfile Telemetry 1.0
  - MicroProfile Rest Client 3.0
  - Jakarta EE 10 Core Profile
- Use Java SE 11 or higher

# Working Group Corporate Members

# Current MicroProfile [Implementations](#)
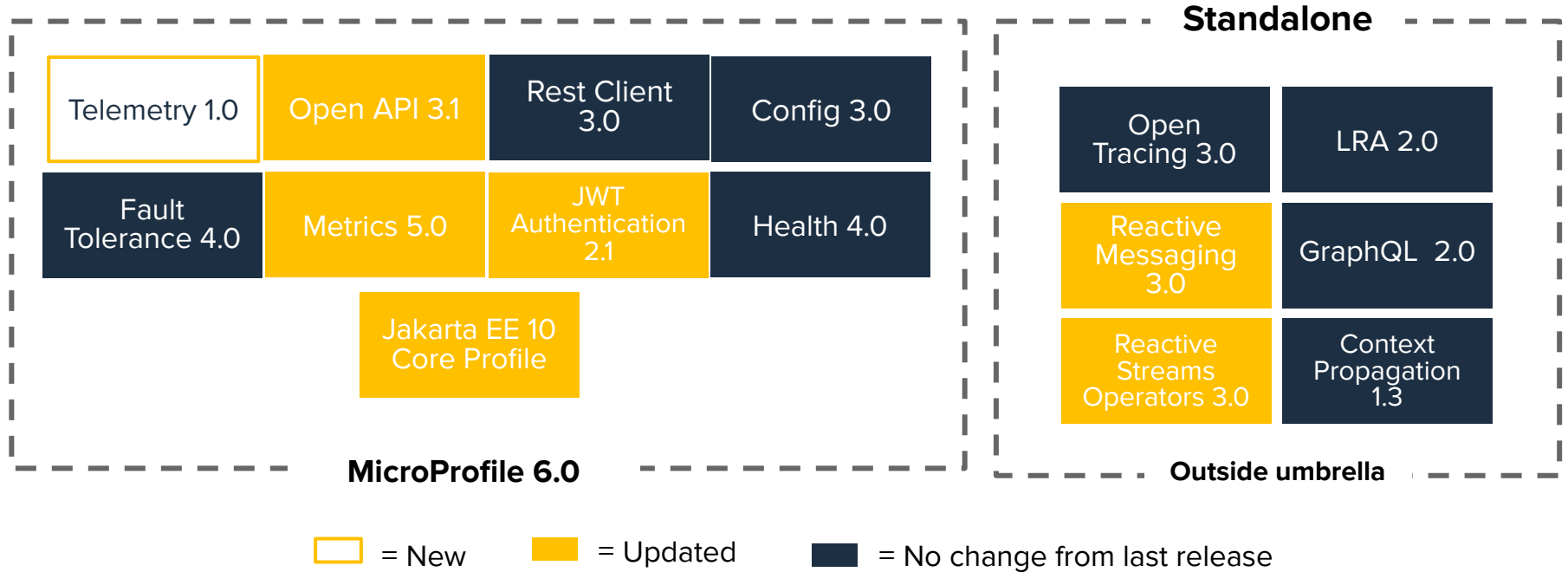
# MicroProfile 6.0 Released!

Released Dec 22nd, 2022

Offered in the release:

- Updated 4 MicroProfile Component specifications (Telemetry, Metrics, JWT and OpenAPI) and adopts Jakarta EE 10 Core Profile

- [Release](#)

# MicroProfile Releases in 2022

**Standalone**

| | | | |
|---|---|---|---|
| Telemetry 1.0 | Open API 3.1 | Rest Client 3.0 | Config 3.0 |
| Fault Tolerance 4.0 | Metrics 5.0 | JWT Authentication 2.1 | Health 4.0 |
| | Jakarta EE 10 Core Profile | | |

| | |
|---|---|
| Open Tracing 3.0 | LRA 2.0 |
| Reactive Messaging 3.0 | GraphQL 2.0 |
| Reactive Streams Operators 3.0 | Context Propagation 1.3 |

**MicroProfile 6.0**

**Outside umbrella**

☐ = New     🟧 = Updated     ◼ = No change from last release

8

# MicroProfile Config 3.0

*Provides an easy to use and flexible system for application configuration*

- What's new
  - Only TCK was updated to allow it running with either Jakarta EE 10 Core Profile or Jakarta EE 9.1

# MicroProfile Fault Tolerance 4.0

*Defines easy to use and flexible APIs for building resilient applications*

- What's new
  - Only TCK was updated to allow it running with either Jakarta EE 10 Core
    Profile or Jakarta EE 9.1

# MicroProfile Health 4.0

*Expose the availability of a MicroProfile runtime to underlying platform*

- What's new
  - Only TCK was updated to allow it running with either Jakarta EE 10 Core

    Profile or Jakarta EE 9.1

# MicroProfile JWT Authentication 2.1

*Using OpenID Connect(OIDC) based JSON Web Tokens(JWT) for role based access control(RBAC) of microservice endpoints.*

What's new

- Updated to use Jakarta EE 9 dependencies
- Specification [release](release) ([changes](changes))

# MicroProfile Metrics 5.0

*Define custom application metrics and expose platform metrics on a standard endpoint using standard formats*

What's new

- Supports multi-dimensional metrics

- Enable application application metrics to be grouped in custom scopes and allows querying of metrics by those scopes

- Backwards Incompatible changes

  - More ...

- Specification release (changes)

# MicroProfile Telemetry 1.0

*Trace request flows between service boundaries*

What's new

- Supports automatic tracing; manual tracing and agent instrumentation
- Provide integration with CDI, which allows Tracer, Span, Baggage to be injected
- New Specification [release](release)

# MicroProfile OpenAPI 3.1

*Provides Java interfaces and programming models to natively  produce OpenAPI v3 documents  from JAX-RS applications*

What's new

- Specification release (changes)

# MicroProfile Rest Client 3.0

*Type-safe rest client defined as Java interfaces*

What's new

- Updated to fix a potential CVE
- Specification [release](release)

# [start.microprofile.io](start.microprofile.io)

- Generate MicroProfile projects

- Visual Studio Code plugin

- IntelliJ Plugin

- Command line tooling



## MicroProfile Starter

Generate MicroProfile Maven Project with Examples

**groupId** *
```
com.example
```

**artifactId** *
```
demo
```

**MicroProfile Version**

**Java SE Version**

### Project Options

**Build Tool**

- Maven
- Gradle

**Examples for specifications**

**MicroProfile Runtime** *

DOWNLOAD

# MicroProfile Reactive Capabilities

**MicroProfile Reactive Streams Operators**
A set of operators to create new reactive streams, process the transiting data and consume them with ease

**MicroProfile Reactive Messaging**
Defines a development model for declaring CDI *beans* producing, consuming and processing messages. It relies on Reactive Streams Operators and CDI

**MicroProfile Context Propagation**
APIs for propagating contexts across units of work that are thread-agnostic

| **Reactive Streams Operators 3.0** |
| --- |
| - Project page<br>- Spec PDF doc<br>- Spec HTML doc<br>- Technology Compatibility Kit (TCK) |

| **MicroProfile Reactive Messaging 3.0** |
| --- |
| - Project page<br>- Spec PDF doc<br>- Spec HTML doc<br>- Technology Compatibility Kit (TCK) |

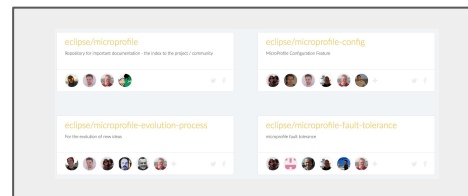| **Context Propagation 1.3** |
| --- |
| - Project page<br>- Spec PDF doc<br>- Spec HTML doc<br>- Technology Compatibility Kit (TCK) |

# Standalone Specifications

# Get Involved!

Google Groups

MicroProfile Projects

Bi-Weekly & Quarterly General community Meetings

YouTube Channel

# MicroProfile