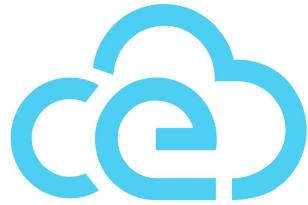




cloudevents



A specification for describing event data in a common way

Why CloudEvents?

Events are everywhere, yet event publishers tend to describe events differently.

Consistency

The lack of a common way of describing

Accessibility

No common event format means no

Portability

The portability and productivity we can achieve



to write new event handling logic for each event source.

and infrastructure for delivering event data across environments.

CloudEvents provides SDKs for **Go**,

JavaScript, Java,

C#, Ruby, PHP,

PowerShell,

Rust, and

Python that can

be used to build event routers, tracing systems, and other tools.

What is CloudEvents?

CloudEvents is a **specification** for describing event data in a common way. CloudEvents seeks to dramatically simplify

Contribute to the CloudEvents project

CloudEvents is organized via the CNCF's **Serverless Working Group** and everyone is



beyond!

CloudEvents is a new effort and it's still under active development. However, its working group has received a surprising amount of industry interest, ranging from major cloud providers to popular SaaS companies. The specification is now under the **Cloud Native Computing Foundation**.

please collaborate with us in the **CloudEvents Github org**, join our weekly call every Thursday at **9AM PT** via **Zoom**, check the **meeting notes**, and review our **Governance** model to familiarize yourself with our process.

CloudEvents 1.0.2 release

On February 5, 2022 the CloudEvents project released v1.0.2 of its specifications. Aside from minor clarifications to the specifications, there were a few noteworthy additions made to the set of deliverables:

- a new Powershell SDK was introduced
- batching support was added to the Protobuf format
- work was started to translate the specifications to Chinese

See the **release notes** for more details. Additionally, the 'specs' github repository was reorganized to accommodate the newer specifications



CloudEvents 1.0.1 release

On December 10, 2020 the CloudEvents project released v1.0.1 of its specifications. This release addresses several clarifications to the v1.0 specification, as well as adding some new features such as a WebSocket protocol binding. Please see the [release note](#) for the complete list of changes. Note that this release is compatible with the existing CloudEvents v1.0 specification.

CloudEvents 1.0 release

On October 24, 2019 the CloudEvents project had two significant achievements. First, the CNCF's [Technical Oversight Committee](#) approved the project as an “incubator” project (thus graduating it from the CNCF “sandbox”). Second, the CloudEvents specification released version 1.0!

This is the first major release of the specification and represents two years' worth of hard work by a truly great team of people from across the entire serverless community. We've had just about every major cloud provider participate, several “end user” companies as well as many individual participants all working diligently on producing a specification that will hopefully continue to see increased adoption now that this milestone has been reached.

Aside from the [core CloudEvents specification](#), there's also the [Primer](#) and protocol and format specifications, all of which can be found in the [GitHub repo](#). Additionally, there are many [SDKs—Go](#),



The CNCF Serverless Working Group will be deciding what to focus on next (e.g. additional CloudEvents related activities, or perhaps address some other interoperability pain-point the community is experiencing). So, if you're interested please join the regular [weekly calls](#). Additionally, there is the work being done on the [workflow specification](#).

Thanks and congratulations to everyone who has participated in the CloudEvents project!

CloudEvents Adopters



Adobe I/O Events

Adobe I/O Events enables event-driven architecture to streamline workflows, improve marketing performance, and more by allowing developers to programmatically react to user behavior, resulting in near real-time customer experiences that are effective and personal.



Alibaba Cloud EventBridge



A serverless event bus that receives CloudEvents compliant events from cloud services, SaaS/custom apps, and routes to various targets.

Argo Events



Argo Events is a CloudEvents compliant event-driven workflow automation framework for Kubernetes.

Awakari

Subscription-based instant messaging. Broadcast to everyone.



Receive only what is relevant. Uses CloudEvents for both publishing.

Azure Event Grid



Event Grid natively supports events in the [JSON implementation of CloudEvents v1.0](#) and the [HTTP protocol binding](#).

Choria



All Life Cycle and Autonomous Agent events emitted by the Choria orchestration system are CloudEvents compliant.



commercetools

All services of the commercetools platform can emit CloudEvents compliant events



Debezium



Debezium, a distributed open-source change data capture platform, can emit change data events **in the CloudEvents format**

Direktiv

Direktiv, a serverless workflow engine, which can take in **CloudEvents** to trigger workflows





Europe an Commi ssion

A
CloudEvents
validation
service

Falco



Falco is a threat detection engine for Kubernetes that can emit CloudEvents for security policy violations at runtime

Flyte

Flyte is a cloud-native workflow orchestration platform built on top of Kubernetes. An LF AI & Data Foundation graduated project, Flyte provides an abstraction layer for guaranteed scalability and reproducibility of data and machine learning workflows. Progress of workflows and tasks is delimited by a series of events that Flyte can emit using CloudEvents



Golioth

Golioth is an IoT device management platform that uses CloudEvents for handling events coming from IoT-specific protocol gateways to internal services. Golioth also publishes IoT data “Output Streams” as CloudEvents



Google Cloud Eventarc



Eventarc is a managed infrastructure that allows you to build event-driven architectures with loosely coupled services that react to state changes

Harbor

Harbor is an open source registry and CNCF Graduated project that secures artifacts with policies and role-based access control, ensures images are scanned and free from vulnerabilities, and signs images as trusted



IBM Cloud Code Engine

Code Engine is a fully managed, serverless platform designed to

Keptn



Keptn builds upon CloudEvents for continuous delivery and automated operations and has its **specification**

Knative Eventing



All event data produced and consumed by Knative Eventing services is



images,
batch jobs,
or source
code. Code
Engine
allows you
to build
event driven
workloads
that react to
CloudEvents

Kogito

All events
emitted and
consumed
by Kogito
business
automation
applications
are
CloudEvents
compliant



Kubewatc h



A Kubernetes
watcher that
publishes
notification to
available
collaboration
hubs/notification
channels

OpenF aaS

CloudEvent
events are
one of the
many
available
triggers for
OpenFaaS
functions



Oracle Cloud

The Oracle
Cloud
Infrastructure
Events



SAP

Many SAP
applications
publish
events
complying to

Serverle ss.com Event Gatewa y



CloudEvents

specification.

A list of events can be found

[here](#).

Furthermore,

SAP Event

Mesh

supports

CloudEvents

functions receive from the Event Gateway is CloudEvents compliant

Serverless Workflow



All event definitions in the Serverless Workflow JSON/YAML model are CloudEvents compliant

Tekton Pipelines



Tekton is a cloud native framework for creating CI/CD systems that can emit CloudEvents as pipelines and tasks execute

Tencent Cloud EventBridge



EventBridge is a secure, stable, and efficient serverless event management platform that supports Tencent Cloud services, custom applications, and SaaS applications are connected in a



centralized
manner

Trigger Mesh

TriggerMesh makes use of CloudEvents in all its event sources and targets to build application flows



VMware Event Broker Appliance



VMware Event Broker Appliance (VEBA) publishes CloudEvents for changes in a vSphere cluster

Voxie

Voxie is a conversational messaging platform using SMS to help businesses engage 1:1 with their customers at scale



wasmCloud

wasmCloud, a cloud native WebAssembly host runtime (CNCF), uses CloudEvents for all event publication





on its control
interface

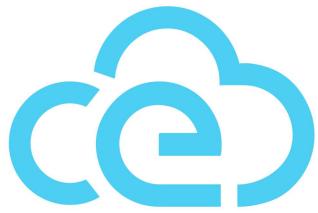
Resources

Videos

Title	Speakers	Event
CNCF CloudEvents Project: A Step Towards Serverless Interop	Doug Davis, IBM	KubeCon China 2019
Intro: CNCF Serverless WG / CloudEvents	Scott Nichols, Google and Klaus Deissner, SAP	KubeCon Europe 2019
Deep Dive: CNCF Serverless WG/CloudEvents	Clemens Vasters, Microsoft and Vlad Ionescu, Independent	KubeCon Europe 2019
Intro: CNCF Serverless WG / CloudEvents	Doug Davis, IBM & Cathy Zhang, Huawei	KubeCon North America 2018
The Serverless and Event-Driven Future	Austen Collins, Serverless	KubeCon Europe 2018



CloudEvents



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Specification

[Primer](#)

[Project](#)

SDKs

[Go](#)

[JavaScript](#)

[Java](#)

[C#](#)

[Ruby](#)

[PHP](#)

[Python](#)

[Rust](#)

[PowerShell](#)

CloudEvents

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[Alibaba Cloud](#)

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[Azure Event Grid](#)

[Choria](#)

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[Debezium](#)

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[European Commission](#)

[Falco](#)

[Flyte](#)

[Golioth](#)

[Google Cloud](#)

[Eventarc](#)

[Harbor](#)

[IBM Cloud Code Engine](#)

[Keptn](#)

[Knative Eventing](#)

[Kogito](#)

[Kubewatch](#)

[OpenFaaS](#)

[Oracle Cloud](#)

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[Serverless.com](#)

[Event Gateway](#)



[Tekton Pipelines](#)
[Tencent Cloud](#)
[EventBridge](#)
[TriggerMesh](#)
[VMware Event](#)
[Broker Appliance](#)
[Voxie](#)
[wasmCloud](#)



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