



Release Notes CWM 1.0

This section contains the following topics:

- [Intro, on page 1](#)
- [Product overview, on page 1](#)
- [Features, on page 1](#)
- [Known issues and limitations, on page 3](#)
- [Compatibility information, on page 5](#)

Intro

This document provides information about Cisco Crosswork Workflow Manager 1.0, including product overview and features, known issues and limitations, compatibility information and VM requirements.

Product overview

The Crosswork Workflow Manager architecture is a microservice-based solution that operates on top of the Kubernetes container orchestration system.

With CWM 1.0, you can build your own workflows to automate network management tasks, making them repeatable and low-risk. CWM can integrate to existing external systems and applications through the use of Adapters. You can tailor your custom adapters to fit your environment using the **Adapter SDK**, or use our two pre-built adapter solutions:

- adapter for Cisco Network Services Orchestrator (NSO), and
- a generic Representational State Transfer (REST) adapter which can be used with any external system that supports REST APIs.

Features

This section contains the features' descriptions available in CWM 1.0.

Table 1: Features released with CWM 1.0

Feature	Description
Workflow management platform	CWM offers workflow lifecycle management, with an event history log and options to execute, re-run or cancel multiple workflow executions.
Workflow creation based on Serverless Workflow Specification and DSL	CWM leverages vendor-neutral domain-specific language (DSL) for workflow definitions based on Serverless Workflow Spec.
Graphical User Interface	CWM offers a graphical user interface for its core functionalities. Features available through CWM GUI: <ul style="list-style-type: none"> • storing and executing workflow definitions. • managing workflow definitions and workflow executions. • checking logs and history for workflow executions. • adding workers. • administrative activities: managing user access and permissions.
Easy installation using OVA file with VMware vSphere	CWM is installed as a guest virtual machine by deploying an OVA image using the vSphere vCenter.
Swagger-enabled REST APIs for northbound integration and API Postman collections	CWM API is exposed via Swagger and also available as Postman collections.
Ready-to-use adapters for NSO and REST API	CWM is shipped with two adapters allowing integrations with Cisco NSO and systems enabled for REST API.
SDK for building custom adapters	Customers can build adapters to enable integration with external systems and applications.
Fault-tolerance for workflows	Workflows are recoverable from a failure within the system.
Access management supporting LDAP and SAML SSO authentication	Admins can manage user access and permissions via GUI. CWM enables Single Authentication Agent, supporting local, LDAP and SAML users.
Health management and logs	CWM offers health management via the Kubernetes command-line tool (kubectl) and the availability to view logs with Grafana Loki.

Feature	Description
Sample workflows	CWM contains ready-to-use sample workflows that can be run immediately, speeding up the learning curve of creating workflows consumed in Crosswork Workflow Manager.

Known issues and limitations

This section contains the description of known issues and limitations:

Table 2: Known issues and limitations

Issue/Limitation	Description
Limited feature support for Serverless Workflow	<p>CWM 1.0 supports a subset of features offered by the Serverless Workflow specification:</p> <ul style="list-style-type: none"> • Custom Function Types mapping to Adapter Activities • Workflow States: <ul style="list-style-type: none"> • Operation States • Switch State (Data Conditions only) • Sleep State • Inject State • ForEach State • Parallel State • Retry Definitions • Workflow Data <ul style="list-style-type: none"> • Data Input • Data Filters <ul style="list-style-type: none"> • State Data Filters • Action Data Filters • Data Merging • Workflow Expressions — defined using JQ version 1.6 • Workflow Actions <ul style="list-style-type: none"> • Calling Function Refs • Workflow Compensation
Minor Accessibility Issues	<p>There are some known issues where it is not possible to access elements on UI using keyboard (tab or label), tab sequence does not follow the fields as displayed on UI and item that has focus is not easily identifiable.</p>
Minor memory leaks when creating workers	<p>There is a small memory leak when creating a new worker. The issue doesn't affect system performance in vast majority of standard use cases.</p>

Compatibility information

This section contains the compatibility information:

Table 3: Compatibility information

Hardware/Software	Supported Version
Protocol Buffers (Protobuf)	v3
Serverless Workflow Specification	v0.8
Swagger	v2.0
VMware vCenter	vSphere 7.0

