



New Release: Q3 2020

Corda and Corda Enterprise 4.6 •

Corda Enterprise 4.6 further advances enterprise tooling around Corda's flow framework to deliver greater administrative transparency and control and introduces new network management capabilities in the core platform.

Corda Enterprise 4.6

Flow management upgrades for node operators

Corda's flow framework provides intercompany workflow orchestration capabilities for business networks. New features simplify the developer and node operator experience and increase flow resiliency, providing new tools to manage in-process flows. New features include:

- **Flow analysis for node operators:** The ability to query, filter and inspect flow checkpoints via shell/RPC enables the retrieval of rich information on running flows. Users can query flows and filter by key criteria such as progress step or CorDapp to support troubleshooting and monitoring.
- **Greater control over flow retries:** Node operators no longer need to restart a node to trigger retries with the ability to retry hospitalized flows via Remote Procedure Call (RPC). Problematic flows (those that throw exceptions on repeated restarts) can be marked, preventing them from being retried automatically when a node is restarted.
- **Prevent duplicate flow starts:** A unique identifier can now be used when starting a flow to prevent accidental flow starts and identify flows that were never started at all (e.g. due to RPC connectivity).
- **Recover results of completed flows:** For any flow started with a unique identifier, the node operator can now retrieve the result of the flow even after it has completed. This can be retrieved by multiple different RPC clients.

Membership and network improvements*

New network management tools for CorDapp publishers and business network operators enable identification, representation and granular management of users across networks and applications, directly from Corda.

- **Greater control over network membership and user permissioning:** CorDapp developers and business network operators can now implement and manage granular user permissioning and privacy policies for applications and business networks through a defined interface.
 - Developers can represent users on CorDapps via membership attestations, membership lists and network meta-data enabling them to query participants' membership information in order to tailor the experience and end user access to features.

- This distributed membership information enables business network operators to more effectively manage network participation, independently of the network operator.

Operational enhancements

- **Monitor ledger statistics:** A new utility enables statistics related to the Corda ledger (e.g. transaction chain size; attachment count; status of transaction chain outputs) to be captured. This helps operators anticipate and address long transaction chains that require attention.
- **Additional support for TLS key storage in HSMs:** TLS keys used by the firewall to ensure secure connections to other Corda servers can now be stored in an HSM for any configuration.
- **New metering client:** Out-of-the box client for the metering collection CorDapp. Retrieves and further automates metering data collection from one or more nodes in a business network.

Developer experience

In this release improvements focus on helping developers to build even more resilient applications.

- **Automated detection of un-restorable checkpoints:** During development, the flow framework now automatically detects code that will lead to the creation of unrestorable checkpoints. For performance reasons this feature should be disabled in the node configuration when in production.

Additional enhancements

- **Easing Corda to Corda Enterprise upgrades*:** Harmonized database schemas between Corda and Corda Enterprise further simplifies migration from Corda to Corda Enterprise through in-place upgrades.
- **Enhanced performance for large networks:** Increased distribution performance of the network map list ensures a faster turnaround, even when a network exceeds several thousand nodes.

*Also included in Corda 4.6

Get started

Try Corda Enterprise 4.6 at r3.com/download-corda-enterprise or via cloud templates on Microsoft Azure Marketplace or AWS Marketplace.

Try Corda Enterprise Network Manager 1.4 at r3.com/download-corda-enterprisenetwork-manager/



Stay
connected
with R3

@inside_r3

New York

11 West 42nd Street,
8th Floor
New York, NY 10036

London

2 London Wall Place,
London, EC2Y 5AU

Singapore

18 Robinson Road,
Level 14-02
Singapore, 048547

São Paulo

Av. Angélica, 2529 – Bela Vista
6th Floor
São Paulo – SP, 01227-200, Brazil