



## What's new with Corda Enterprise 4? •

The Corda Enterprise logo, with 'c-rda' in red and 'enterprise' in white, set against a background of a curved, textured surface made of small circles.

**c-rda**  
enterprise

Corda Enterprise 4 focuses on mission-critical features for large-scale enterprise deployments. Architectural enhancements deliver a 100% increase in Transactions Per Second (TPS) performance. Advances in multi-node capabilities, Docker support and a new performance test suite simplify the setup and management of High Availability nodes.

## New features and key enhancements

### Multiple Nodes Behind a Single Firewall

Every node requires a firewall, which can be costly. Providing a single firewall with one IP address where multiple nodes can be hosted makes it easier for customers to deploy multiple nodes, reducing cost and complexity while providing increased security for end users.

### Hardware Security Module (HSM) Support

Corda Enterprise 4 includes support for the holding of signing keys in a hardware security module, providing clients with increased security. HSMs store and safeguard cryptographic keys in tamper-proof hardware, and are standard in many enterprise organizations. The vendors which are currently supported include Azure Key Vault, Gemalto and Utimaco.

### Architecture Improvements

Enterprise 4 introduces architectural improvements that optimize larger scale deployments, reduce the cost of infrastructure, and minimize the operational complexity of multi-node hosting. Additional improvements include:

- The need for a third-party load balancer in hot-cold HA architecture has been eliminated.
- Management of multiple clustered hot-cold nodes and HA Corda firewalls on a single shared infrastructure for multiple identities. Available with or without Zookeeper, for greater flexibility.
- Shareable Artemis messaging servers across nodes allows for less infrastructure components in a multi-node configuration. Additionally, we have added support for the RedHat distribution of Artemis.



### Docker Distribution Package for Nodes\*

Corda Enterprise 4 components are being 'containerized' in a standard Docker image making it easier and faster to test and deploy nodes within one's infrastructure. This allows for quick provisioning of Corda nodes for clients who want to use Docker containers and ensures components are always up-to-date.

### Performance Test Suites

Corda Enterprise 4 features a performance test suite and guidelines for testing of nodes and measuring transactions per second (TPS). Using this test framework, firms can test and validate their infrastructure performance and determine whether or not improvements are needed before going live.

### Additional Enhancements\*

- **Signature Constraints:** Signature Constraints are a new CorDapp upgrade process that allows for simpler, yet secure, CorDapp upgrades. This new process allows for less choreography between node administrators.
- **Reference States:** Transactions can now reference states on ledger without requiring those states to be consumed. This unique ability allows for easy creation of master contracts, reference data or other dependencies between states.
- **User Accounts:** User accounts allow for the representation of an individual entity on the ledger of a node. This allows a node to maintain a set of identities that can be used to map directly to entities only known to the node. This feature facilitates a large set of entities to be managed by a node while ensuring those entities are able to transact with other nodes on a Corda network.

\*Also available in Corda open source 4

## Get started with Corda Enterprise 4

Download a free trial of Corda Enterprise 4 at [r3.com/corda-enterprise](https://r3.com/corda-enterprise), or via cloud templates on Microsoft Azure Marketplace or AWS Marketplace.

Learn more at [r3.com/corda-enterprise](https://r3.com/corda-enterprise).



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