

What's New for Oracle Blockchain Platform

Here's an overview of the new features and enhancements that were recently added to Oracle Blockchain Platform. This document is organized by the date a specific feature or capability became available.

Topics

- [Release 23.3.3 — October 2023 \(Blockchain App Builder 23.4.1\)](#)
- [Release 23.3.3 — October 2023](#)
- [Release 22.4.2 — September 2023 \(Blockchain App Builder 23.3.3\)](#)
- [Release 22.4.2 — December 2022 \(Blockchain App Builder 22.4.2\)](#)
- [Release 22.4.2 — December 2022](#)
- [Release 22.3.2 — August 2022](#)
- [Release 22.2.1 — June 2022 \(Blockchain App Builder 22.2.3\)](#)
- [Release 22.2.1 — April 2022](#)
- [Release 21.4.1 — November 2021](#)

Release 23.3.3 — October 2023 (Blockchain App Builder 23.4.1)

Feature	Description
Blockchain App Builder v23.4.1	<p>The new version of Blockchain App Builder includes the following features:</p> <ul style="list-style-type: none"> • Methods to support locking non-fungible tokens (NFTs). See the following topics: <ul style="list-style-type: none"> – TypeScript Methods for ERC-721 NFT Locking – Go Methods for ERC-721 NFT Locking – TypeScript Methods for ERC-1155 NFT Locking – Go Methods for ERC-1155 NFT Locking <p>Download Blockchain App Builder from the Developer Tools tab in your Oracle Blockchain Platform instance.</p> <p>See: Build Chaincodes with Low-Code Blockchain App Builder</p>

Release 23.3.3 — October 2023

Feature	Description
Hyperledger Fabric v2.5.3	New instances of Oracle Blockchain Platform are now based on Hyperledger Fabric v2.5.3.
Support for transferring NFTs from Oracle Blockchain Platform to Ethereum	<p>The <code>atomicTransactions</code> REST API now supports transferring non-fungible tokens (NFTs) from Oracle Blockchain Platform to an Ethereum or Polygon network.</p> <p>See: Ethereum Interoperability and Atomic Transactions REST Endpoints</p>
Ethereum Virtual Machine (EVM) enhancements	<p>An enhanced version of the EVM chaincode is now downloadable from the Oracle Blockchain Platform console. You can use the EVM chaincode to deploy and interact with smart contracts on Ethereum Virtual Machine (EVM) chaincode that is deployed on Oracle Blockchain Platform, either via REST proxy or fab3 proxy. New methods allow you to configure the gas value in EVM chaincode. Additionally, the REST proxy now supports JSON format input when calling deployed smart contract functions.</p> <p>See: Run Solidity Smart Contracts with EVM on Oracle Blockchain Platform and Configuring the Fab3 Proxy</p>

Release 22.4.2 — September 2023 (Blockchain App Builder 23.3.3)

Feature	Description
Blockchain App Builder v23.3.3	<p>The new version of Blockchain App Builder includes the following features:</p> <ul style="list-style-type: none"> • Support for fractional non-fungible tokens (NFTs) when you use the extended version of the ERC-1155 token standard. A new sample fractional NFT application is also provided. See ERC-1155. • Methods to support a new role of organization administrator (<code>OrgAdmin</code>) when you use the extended Token Taxonomy Framework standard. The organization administrator can manage tokens and token accounts for a particular organization. See Tokenization Support, Scaffolded TypeScript Project for Token Taxonomy Framework, and Scaffolded Go Project for Token Taxonomy Framework. • Methods to support enabling, disabling, and deleting token accounts that use the extended ERC-721 and ERC-1155 standards. See the following topics: <ul style="list-style-type: none"> – TypeScript Methods for ERC-721 Token Account Status – Go Methods for ERC-721 Token Account Status – TypeScript Methods for ERC-1155 Token Account Status – Go Methods for ERC-1155 Token Account Status • Postman collection generation, so that you can automatically generate a complete set of API requests from a specified chaincode. See Generate a Postman Collection Using the CLI and Generate a Postman Collection Using Visual Studio Code. • Automatic dependency checks that run when you upgrade Blockchain App Builder, to ensure that your system meets the prerequisites. You can also run a prerequisites check manually. See Troubleshoot Blockchain App Builder CLI and Troubleshoot Blockchain App Builder Visual Studio Code Extension. • Support for using a secondary instance of Oracle Blockchain Platform for disaster recovery in tokenization scenarios. See Disaster Recovery Support for Tokenization. <p>Download Blockchain App Builder from the Developer Tools tab in your Oracle Blockchain Platform instance.</p>

Feature	Description
	See: Build Chaincodes with Low-Code Blockchain App Builder

Release 22.4.2 — December 2022 (Blockchain App Builder 22.4.2)

Feature	Description
Blockchain App Builder for Oracle Blockchain Platform v22.4.2	<p>The new version of Blockchain App Builder includes the following features:</p> <ul style="list-style-type: none"> • Support for an extended version of the ERC-1155 token standard, which you can use to work with and exchange fungible tokens and non-fungible tokens (NFTs). See ERC-1155. • Methods to support converting between fungible tokens that use the extended Token Taxonomy Framework standard. See TypeScript Methods for Fungible Token Conversion and Go Methods for Fungible Token Conversion. • Methods to support enabling, disabling, and deleting token accounts for fungible tokens that use the extended Token Taxonomy Framework standard. See TypeScript Methods for Fungible Token Account Status and Go Methods for Fungible Token Account Status. • Support for Oracle Linux 7.9 and 8.0. <p>Download Blockchain App Builder from the Developer Tools tab in your Oracle Blockchain Platform instance.</p> <p>See: Build Chaincodes with Low-Code Blockchain App Builder</p>

Release 22.4.2 — December 2022

Feature	Description
Ethereum support for atomic transactions (two-phase commit)	<p>You can now run Ethereum transactions as part of an atomic transaction workflow by using the <code>atomicTransactions</code> REST API, where the combined transactions are either all committed or all rolled back.</p> <p>See: Make Atomic Updates Across Chaincodes and Channels, Ethereum Interoperability, and Atomic Transactions REST Endpoints</p>
Support web3-based interactions with Ethereum smart contracts via the proxy	<p>You can use the <code>web3</code> library and the <code>fab3</code> proxy to deploy and interact with smart contracts on Ethereum Virtual Machine (EVM) chaincode that is deployed on Oracle Blockchain Platform peer nodes.</p> <p>See: Configuring the Fab3 Proxy</p>
Upgrade of instances running Hyperledger Fabric v2.2.4	<p>You can now upgrade the version of Oracle Blockchain Platform that is running on instances that are based on Hyperledger Fabric v2.2.4.</p> <p>See: Upgrade an Instance</p>
Rich queries in the console UI	<p>You can run and analyze rich queries on the state database for a specified chaincode and channel in the console's Channels tab by using the More Actions menu.</p> <p>See: Rich Queries in the Console</p>
Chaincode package deletion	<p>To free up disk space, you can delete obsolete or unused chaincode packages by using the REST API or the console UI.</p> <p>See: Delete a Chaincode and Delete Installed Chaincode Package</p>
OAuth 2.0 support for REST proxy event callbacks	<p>In addition to mutual TLS, REST proxy event subscription callbacks now support invoking callback endpoints that are secured with OAuth 2.0 authorization.</p> <p>See: Subscribe to an Event</p>

Release 22.3.2 — August 2022

Feature	Description
Atomic transactions (two-phase commit)	<p>You can now use the REST API to combine a group of transactions across multiple channels into a single (atomic) transaction. Atomic transactions use the two-phase commit protocol, so that the combined transactions are either all committed or all rolled back. You can use this function to work around Hyperledger Fabric limitations related to atomic cross-channel updates.</p> <p>See: Use Atomic Transactions and Atomic Transactions REST Endpoints</p>
Oracle Blockchain Platform support for global distributed transactions	<p>Oracle Blockchain Platform now supports the X/Open group XA (eXtended Architecture) standard, which specifies the interface between a global transaction manager and local transactional resource managers. The XA standard is based on a two-phase commit protocol. Oracle Blockchain Platform now provides a Java library that can be used as an XA resource manager, allowing global transaction managers to coordinate and sequence a series of atomic operations that can include Oracle Blockchain Platform blockchain transactions alongside databases, queueing systems, and other XA-capable resources.</p> <p>See: Use the XA Java Library</p>

Release 22.2.1 — June 2022 (Blockchain App Builder 22.2.3)

Feature	Description
Blockchain App Builder for Oracle Blockchain Platform v22.2.3	<p>The new version of Blockchain App Builder includes the following features:</p> <ul style="list-style-type: none"> • Support on Microsoft Windows for the latest Blockchain App Builder features, including non-fungible token (NFT) support. • Support for TypeScript 4.6. <p>Download Blockchain App Builder from the Developer Tools tab in your blockchain instance.</p> <p>See: Using Blockchain App Builder</p>

Release 22.2.1 — April 2022

Feature	Description
Hyperledger Fabric v2.2.4 upgrades	<p>You can now upgrade existing instances of Oracle Blockchain Platform that are based on Hyperledger Fabric v1.4.7 to Hyperledger Fabric v2.2.4. You can upgrade instances that are part of a network that includes a single organization. To upgrade the platform version of a network with multiple organizations, contact Oracle support.</p> <p>For more information, see: Upgrade the Platform Version of an Instance.</p> <p>Hyperledger Fabric v2.2.4 uses a new chaincode life cycle and a new model that separates chaincode packages from chaincode definitions. You might need to update chaincode and client applications to work with the new version of Hyperledger Fabric. To learn more about the impact of a new version of Hyperledger Fabric on existing applications, see Updating Applications for a New Platform Version.</p>
Reliable callbacks for event subscriptions	<p>Oracle Blockchain Platform now supports more reliable delivery for subscribed events. If a callback fails, it is retried based on an exponential backoff policy. When you subscribe to chaincode events, you can specify the maximum number of times that a callback will be retried after a communication failure.</p> <p>See: Subscribe to an Event in the REST API documentation.</p>
Blockchain App Builder for Oracle Blockchain Platform v22.2.1	<p>The new version of Blockchain App Builder includes the following features:</p> <ul style="list-style-type: none"> • Support for non-fungible tokens (NFTs), including automatically generated methods and SDKs for NFTs. • A new command for applying patches to Blockchain App Builder projects. • New methods for filtering and paginating query results. • New SDK methods that support cross-chaincode function calls. • A local testing environment that is now based on Hyperledger Fabric v2.4. • Enhanced account creation for fractional fungible tokens, which includes an additional step to associate the token account with the token ID. <p>Download Blockchain App Builder from the Developer Tools tab in your blockchain instance.</p> <p>See: Using Blockchain App Builder</p>

The following table outlines changes that might cause incompatibilities with previous releases of Oracle Blockchain Platform.

Change	Notes
Hyperledger Fabric v2.2.4 does not automatically vendor the Go chaincode shim dependency as previous versions did. You must manually vendor the Go chaincode shim.	See <i>Vendor the Shim for Go Chaincodes</i> in <i>Write a Chaincode</i> .
Hyperledger Fabric v2.2.4 requires Go version 1.16.7 or later.	For instances based on Hyperledger Fabric v2.2.4 that run Go chaincodes, upgrade to Go version 1.16.7 or later.
Multiple versions of the Hyperledger Fabric SDKs are available. Use a version of the SDK that is compatible with the version of Hyperledger Fabric that your instance is based on.	For instances based on Hyperledger Fabric v2.2.4, use versions that are compatible with the Hyperledger Fabric v2.2 long-term support (LTS) release. Oracle Blockchain Platform was verified to work with the following versions for Hyperledger Fabric v2.2.4: <ul style="list-style-type: none">• Node.js SDK v2.2.9• Java SDK v2.2.2• Go SDK v1.0.0 For more information, see: <i>Use the Hyperledger Fabric SDKs to Develop Applications</i>

Release 21.4.1 — November 2021

Feature	Description
Hyperledger Fabric v2.2.4	You can now create instances of Oracle Blockchain Platform based on Hyperledger Fabric v2.2.4, which includes the following features: <ul style="list-style-type: none">• A new chaincode life cycle, with new procedures for installing chaincode on peers and starting it on a channel.• A new model that separates chaincode packages from chaincode definitions, which allows for more flexibility when deploying chaincodes.• Decentralized governance, so that multiple organizations must agree to chaincode parameters before deployment, instead of using one group of parameters set by the founder. See: <i>Deploy and Manage Chaincodes on Hyperledger Fabric 2.2.4</i>

Feature	Description
Private data collection enhancements	You can specify an endorsement policy to control access to a private data collection. You can also automatically prevent members of organizations that are not part of the collection from reading or writing private data. See: Add Private Data Collections
User-initiated upgrades	When a new release of Oracle Blockchain Platform is available, you can now use the Oracle Cloud Infrastructure console or the REST APIs to upgrade an instance at the time you choose. See: Upgrade an Instance

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Oracle Cloud What's New for Oracle Blockchain Platform on Oracle Cloud Infrastructure (Gen 2)

F26728-20

Copyright © 2020, 2024, Oracle and/or its affiliates

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle®, Java, MySQL, and NetSuite are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Inside are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Epyc, and the AMD logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.