

ORACLE

# Interconnect and Automate Your Organization's Ecosystem



OCI Blockchain Platform





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# Enable real-time transactions and securely share tamper-proof data across a trusted business network



OCI [Blockchain Platform](#) provides the most comprehensive, pre-assembled blockchain managed service for building and integrating blockchain applications and smart contracts using a tamper-proof distributed ledger.



## Increase business velocity

Create a trusted network to rapidly automate multi-party business processes across and beyond the enterprise. Optimize business decisions with real-time information visibility across your company's ecosystem. Enable new business models and revenue streams with tokenization.



## Reduce operations costs

Accelerate transactions and eliminate the cumbersome offline reconciliations by using a trusted shared fabric of common information. Eliminate intermediaries and related costs, possible single points of failure, and time delays by using a peer-to-peer business network.



## Reduce the cost of fraud, audits, and regulatory compliance

Gain the security of knowing that business-critical records are tamper-proof via securely replicated, cryptographically-linked blocks to protect against hacking, insider tampering, and single points of failure. Simplify audits with verifiable ledger of linked transactions.

# What is Enterprise Blockchain?

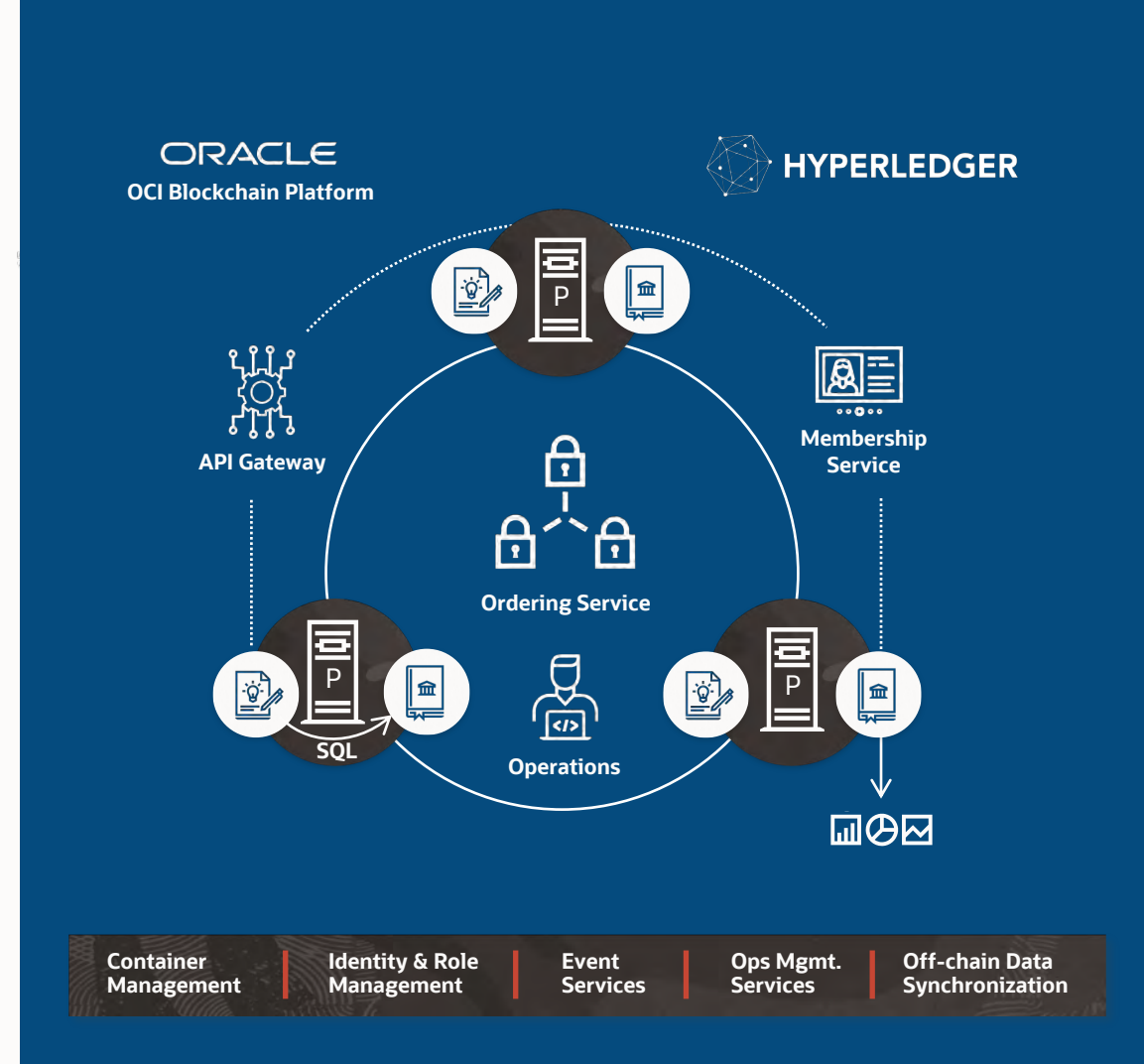
## A unique peer-to-peer distributed ledger network

At the core of the enterprise blockchain is a distributed ledger – an append-only, tamper-proof distributed system of record accessible to the participating nodes. Business logic necessary to map the data and enforce agreed business rules is provided by application components known as smart contracts or chaincodes – these are executed on the nodes and provide multi-party endorsements. The resultant transactions are digitally signed and provably endorsed by relevant participants for non-repudiation, which can be verified via transaction history in the cryptographically-secured ledger.

A key factor distinguishing enterprise blockchain from public blockchains is the membership governance that makes this a permissioned network of invited or authorized participants. This avoids the use of compute- and energy-expensive Proof of Work or Proof-of-Stake algorithms making enterprise blockchains much faster than their public counterparts and drastically reducing energy consumption and CO<sub>2</sub> emissions. It also enables privacy and confidentiality by securing transactions via access control policies.

OCI Blockchain Platform comprises a network of validating peer nodes that maintain the ledger and execute smart contracts, ordering nodes that sequence transactions and create cryptographically linked blocks, and certificate authority to manage members' identities. These are supplemented by a Console for service administration, which is accessible via Web UI and REST APIs, bi-directional API gateway for exposing chain codes via REST APIs and managing event subscriptions, and a low-code development tooling: Blockchain App Builder.

[Read more about OCI native blockchain](#)

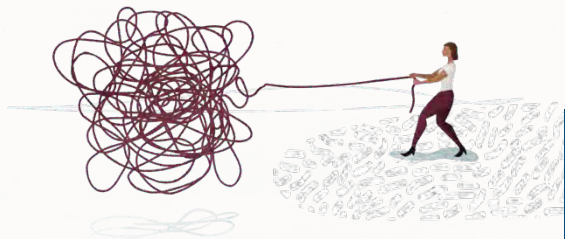


- Membership & Governance**  
 Identity management, permissioned access, and policies, auditing
- Shared ledger**  
 Append-only distributed system of record shared across a business network
- Privacy & Confidentiality**  
 Transactions are secure with appropriate visibility and access control
- Smart contracts**  
 Business terms and rules executed as transactions with multi-party endorsements
- Proof**  
 Transactions are digitally signed and provably endorsed by relevant participants





# Blockchain offers solutions to common problems









## The world has never been as interconnected as it is today.

With significant dependence on sharing data and conducting business across a diverse ecosystems, companies are becoming much more dependent on the accuracy of the data and real-time visibility across their siloed systems. Trust in transactions involving their customers, suppliers, banks, and other partners is paramount – human errors and risk of fraud can be very costly, particularly when working with far-flung companies around the world.

If your business runs on data, the massive increase in data sharing and the attendant reliability and security concerns are top of mind. You may be using EDI, point-to-point APIs or B2B file sharing, or perhaps your employees email spreadsheets – but these approaches can be brittle, costly if intermediaries are involved, with limited scalability for a larger ecosystem, and involve additional reconciliation efforts. Often these approaches fall short of what’s needed for real-time, tamper-proof, trusted transactions. These limitations and lack of automation lead to trust deficits between the parties and potential for cross-system discrepancies that impact operations.

## Common challenges & situations where customers use blockchain:

-  **High reconciliation cost** and operations impact of **siloed** data across divisional or company boundaries  
*Question #1, Question #3*
-  **Lack of verifiability, risk of human errors or fraud** among your partners or ecosystem participants  
*Question # 1*
-  **Cost, risk, and delays from intermediaries** the business operations depends on  
*Question # 3*
-  **Lack of real-time visibility** among suppliers, distributors, or customers due to batch data updates  
*Question #1, Question #2*
-  **Poor traceability** or lack of audit trail for regulatory compliance or internal best practices  
*Question #2, Question #4*
-  **Inability to track** physical or digital assets effectively and leverage their value in a tokenized economy  
*Question #5*

## Can your enterprise answer yes to these questions?

- Q 1:** Do your applications rely on external data ingested via spreadsheets, B2B file transfers, EDI, or point-to-point APIs?
- Q 2:** Do you need to simplify your infrastructure and provide highly efficient Distributed Ledger Technology to your application teams and lines of business for transactions that extend across multi-party ecosystems?
- Q 3:** Are you working to accelerate delivery and respond to the competition faster, but are struggling to link data across disparate siloes, reduce the impact of discrepancies and cost of reconciliation across multiple systems?
- Q 4:** Do you rely on SaaS applications or Oracle Fusion applications on premises for enterprise processes that need to be extended beyond the enterprise boundaries?
- Q 5:** Are you looking to track physical or digital assets effectively and leverage their value in a tokenized economy?

# Can Oracle blockchain platform help?

## OCI Blockchain Platform helps solve these problems

by making it easy to build secure, traceable, auditable, and verifiable applications that share trusted single source of truth using distributed ledger and implement business logic as multi-party smart contracts that handle transactions and update the ledger in near real time.

**Q1:** Do your applications rely on external data ingested via spreadsheets, B2B file transfers, EDI, or point-to-point APIs?

### A: Enterprise-grade cloud platform

- Quickly deploy the blockchain network to create a distributed ledger as a single source of truth.
- Dynamically scale the members & transaction volumes.
- Ensure continuous operations with resilience, high availability, and automatic recoverability.
- Secure access with permissioned blockchain using Oracle Identity Cloud with SSO and OCI Vault.
- Set up confidential channels and private data collections to securely conduct private transactions.

**Q3:** Are you working to accelerate delivery and respond to the competition faster, but are struggling to link data across disparate siloes, reduce the impact of discrepancies and cost of reconciliation across multiple systems?

### A: Speed to market with low-code and rich integrations

- Link multiple siloed apps into a single source of truth using distributed ledger.
- Automatically create smart contracts from declarative specifications. Extend with custom methods if needed.
- Simplify the integration for cloud or on-premises applications using REST APIs to/from blockchain.
- Use single sign-on to connect Oracle SaaS applications with OBP.

**Q2:** Do you need to simplify your infrastructure and provide highly efficient Distributed Ledger Technology to your application teams and lines of business for transactions that extend across multi-party ecosystems?

### A: Managed Blockchain PaaS

- Provision and configure blockchain resources rapidly and use built-in dashboards to detect bottlenecks in real time.
- Rapidly add partners to create a flexible blockchain network with dynamic configuration.
- Leave updates, monitoring, and other operational worries behind with Oracle managed services.



**Built on the Linux Foundation's open source Hyperledger Fabric project**, it is an industry leading pre-assembled managed enterprise blockchain platform, available in the cloud and on-premises with financially backed **99.95%** availability, integrated identity management, bi-directional API gateway, low-code development tooling, rich integration options across Oracle's leading industry solutions and 3rd party applications, and real-time analytics capabilities.



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**Q4:** Do you rely on SaaS applications, Oracle Fusion, or traditional applications on premises for enterprise processes that need to be extended beyond the enterprise boundaries?

### A: Extend enterprise boundaries

- Speed up business processes through blockchain integration using accelerators, such as Oracle Integration Adapters, to easily leverage B2B transactions and partner data from enterprise applications.
- Enable new business models and revenue streams by reaching untapped markets leveraging blockchain verified identity and offerings.

**Q5:** Are you looking to track physical or digital assets effectively and leverage their value in a tokenized economy?

### A: Tokenize Enterprise Assets

- Tokenization in enterprise ties assets status, custody, and business rules to enable efficient handling of assets by the enterprise systems.
- OCI Blockchain enables use of tokens to represent digital assets or digital twins of physical assets, which can reduce costs & open new revenue opportunities.



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# How does blockchain benefit my industry?

## Example customer use cases

### Banking and Financial Services

- Accelerating cross-border funds transfer
- e-KYC for rapid customer on-boarding
- Intercompany financial reconciliation
- Secure real-time AML/CFT Watch/Sanctions list updates
- Asset tokenization in wealth management securities services
- Mutual funds-to-Brokerage window transfers
- Automated parametric insurance issuance and claims processing
- Insurance Back-office Payments and Reconciliation

### Manufacturing and Logistics

- Product content and royalties tracking for certified manufacturing ecosystem
- Sustainable and ethical sourcing of critical and conflict minerals
- Intercompany billing and reconciliation
- B2B platform for inventory visibility, SLA enforcement, geo-origin and authenticity
- Optimizing overall equipment effectiveness and predictive maintenance
- Maritime shipping logistics and documentation
- Export/Import Secure Logistics Document Exchange

### Education and Training

- Smart education credentials in Higher Ed & Continuous Education
- Transcript sharing and transfer credit & articulation
- Study abroad matching and certifications
- Employment training certification

### Food, agriculture, and CPG

- Authenticity of protected origin or geographical indication products
- Farm product pricing using smart contracts & provenance traceability
- FDA Food Safety Modernization Act (FSMA) traceability
- Tracking cattle genomics and CO2 emissions
- Trusted value chain for CPG product sustainability and provenance certification

### Healthcare and Life Sciences

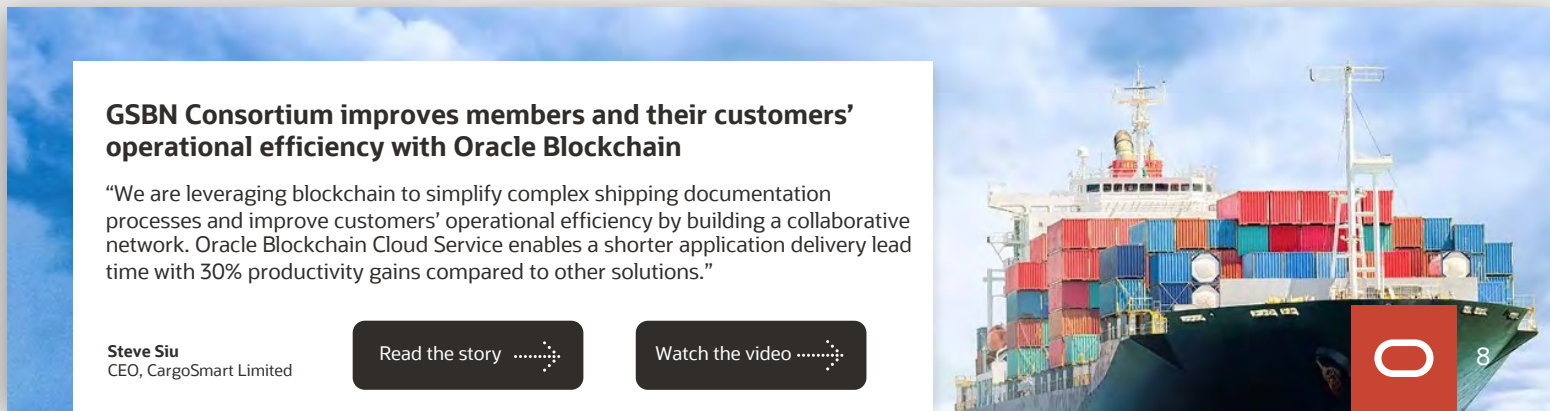
- Immutable and verifiable rapid testing results sharing for public health agencies
- Remote tracking of patient vitals for distributed healthcare team
- Electronic Health Records (EHR) sharing
- Anti-fraud tracking in pharmaceuticals distribution
- Pharmacological supplies traceability in clinical studies
- Verifiable immunity and test status certification

### Retail

- Authenticated provenance for luxury goods
- Ethical and verified sourcing for fashion products
- Real-time retail rewards linked across ecosystem
- Franchise ecosystem invoicing & inventory tracking
- Traceable sourcing of recycled plastics used in making consumer and industrial goods.

### Government and Public Services


- Export license issuance and excise tax tracking
- Forensic evidence verifiable chain of custody across agencies
- Immigration document and visa tracking
- Verifiable country-of-origin and other trade certifications
- Verifiable lottery tickets and winnings redemption ledger
- Multi-tiered grants distribution and tracking
- Local decision-making and voting by citizens residing abroad





**GSBN Consortium improves members and their customers' operational efficiency with Oracle Blockchain**

"We are leveraging blockchain to simplify complex shipping documentation processes and improve customers' operational efficiency by building a collaborative network. Oracle Blockchain Cloud Service enables a shorter application delivery lead time with 30% productivity gains compared to other solutions."

Steve Siu  
CEO, CargoSmart Limited

Read the story 

Watch the video 







“Oracle delivers an enterprise-grade blockchain platform with high resiliency, scalability, and security. The built-in features, such as identity management and data encryption, made it an ideal choice given our industry requirements and compliance needs.”



**Ayman Qadoumi**  
Deputy General Manager,  
Information Technology and Security,  
Arab Jordan Investment Bank (AJIB)

<b>Banking and Financial Services</b>	Food, agriculture, and CPG	Retail	Manufacturing and Logistics	Healthcare and Life Sciences	Government and Public Services	Education and Training
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**Accelerating cross-border funds transfer**

Oracle Blockchain helps AJIB to provide bank customers with nearly instant cross-border funds transfer for payments, remittances, corporate or personal accounts and ensures full auditability and AML/CFT compliance.

[AJIB Story](#) | [Blog](#) | [Tahawul Tech Article](#) | [Video](#)

**e-KYC for rapid customer on-boarding**

Ahli Jordan Bank, using Oracle Blockchain Platform, helps banks’ clients to speed through individual account creation process and manages complex KYC document collection requirements for corporate services by providing a tamper proof digital identity.

[News Release](#) | [Blog](#)

**Intercompany financial reconciliation**

Connects multiple ERPs and other systems across related entities to automate tracking and reconciliation of financial transactions, subsequent billing, and settlements using smart contracts that codify intercompany agreements and accounting rules, while creating a tamper-proof audit trail using distributed ledger.

[Watch the Webinar](#) | [Blog](#)

**Secure real-time AML/CFT Watch/Sanctions list updates**

Eastnets ensures that the financial institutions get real-time access to high-quality Dow Jones sanctions alerts tracked on a blockchain network. This updates AML screening engines automatically and helps to transform a manual process that suffers from delays and is risk prone to fully automated, secure and real time sanction list updates.

[News Release](#) | [Video](#) | [Marketplace](#)

**Asset tokenization in wealth management securities services**

OCI Blockchain Platform enables banks to offer their customers services to tokenize securities and deposits for fractional trading and integrate with digital exchanges, providing 24x7 settlement and lower costs. Complemented by a tokenized solution to facilitate the issuance of retail bank deposits backed by FSCS protected fiat funds to enable consumers to receive economic benefits from longer-tenor deposits while maintaining flexible and easy access to their deposited money. A Standard Chartered Bank entry submitted and accepted by [FCA Regulatory Sandbox](#) (Cohort 5) in the UK.

[Whitepaper](#) | [FinanceFeeds Article](#)

**Mutual funds-to-brokerage window transfers**

OCI Blockchain Platform streamlines transfers between mutual fund accounts and self-directed brokerage accounts using distributed ledger with smart contracts, which benefits customers by reducing errors and overnight delays, and enables multiple daily transfers.

**Automated parametric insurance issuance and claims processing**

OCI Blockchain Platform inks micro-policy creation, issuance, and execution across members’ blockchain nodes using smart contracts, automating premium setting and claims settlement for parametric insurance, which reduces processing costs and increase customer trust.

[Blog](#)

**Insurance back-office payments and reconciliation**

Tokenization-based insurance back-office system with accounts reconciliation helps to avoid discrepancies between siloed accounting and settlement systems. Eliminate effort and cost of manual reconciliation between insurers and brokers, while reducing the risk of human errors, fraud, and regulatory compliance issues. Streamline re-insurance accounting and reconciliation of book values with settlement values for profit calculations.

[Supermoney Article](#) | [Blog](#)





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“We believe that buyers and growers deserve a world in which authenticity and quality are not only valued but verified. Managing traceability with blockchain technology is the logical progression of the whole traceability process for our Bellucci Premium Extra Virgin Olive Oil. We are using Oracle Blockchain to track shipments of our EVOO from our bottling facility in Italy to the port of arrival in the US. Oracle Blockchain Platform easily integrates with our partners’ systems, and we can create smart contracts between supply and distribution actors, thus reducing operational costs.”



**Andrea Biagianti**

Chief Information Officer,  
Certified Origins Italia Srl

Banking and Financial Services	<b>Food, agriculture, and CPG</b>	Retail	Manufacturing and Logistics	Healthcare and Life Sciences	Government and Public Services	Education and Training
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**Authenticity of protected origin or geographical indication products**

Certified Origins Italia is a leader in authenticated provenance of Italian Extra Virgin Olive Oil (EVOO). They are tracking the EVOO from thousands of olive farms and hundreds of pressing and bottling facilities to the warehouses and retailers across the world. Certified Origins thinks consumers should know where their food comes from – which is why they leverage a blockchain-based open ledger and other cutting-edge technology to provide deeper insight into the food supply chain and increase traceability. They believe in growing trust greater food supply chain transparency.

[Certified Origins Story](#) | [Video](#)

**Farm product pricing based on smart contracts and provenance traceability**

Milk farmers across the EU depend on the lab analysis of their products before the prices are set for their deliveries. Smart contracts set prices and manage milk farmers’ cooperative payment process based on contract terms and real-time laboratory data insights. Verifying traceability and laboratory data in real-time via OriginTrail Decentralized Network (ODN) makes pricing transparent for all and ensures that farmers can maximize their returns from the high-quality products they supply.

[Medium Article](#) | [News Release](#) | [Video](#)

**FDA Food Safety Modernization Act (FSMA) traceability**

Solution helps to implement FDA’s new requirements for those who manufacture, process, pack, or hold foods included on the Food Traceability List (FTL) to maintain records containing Key Data Elements (KDEs) associated with different Critical Tracking Events (CTEs) up and down the supply chain.

[Coin Telegraph Article](#) | [Blog](#)

**Tracking cattle genomics and CO<sub>2</sub> emissions**

Helping Irish farmers breed dairy and beef cattle for greater efficiency and sustainability requires bringing together information from shoppers, retailers and farmers. It combines ICBF’s massive data stores that include one of the world’s largest integrated animal databases, containing data on animal ancestry and DNA, birth details, performance records and laboratory results with data sourced from their retail and restaurant customers. The aim is to create a tamper-proof ledger tracking each animal’s history and use that data to explore how farmers can best produce the steaks that shoppers want to buy and eat, while breeding cattle that minimizes methane CO<sub>2</sub> emissions.

[ICBF Whitepaper](#) | [Medium Article](#) | [Video](#)

**Trusted value chain for CPG product sustainability and provenance certifications**

Sustainable agriculture is an important priority across the globe. The concerns range from reduction in forest cover, emission of Green House Gases and CO<sub>2</sub> emissions from peat lands, to authenticity of bio-diversity and organic certifications, food safety, and ethical labor practices. Helping companies to maintain a distributed tamper-proof ledger of all certification and supplier data for all Farmer-to-Factory and Factory-to-Consumer steps promotes consumer trust, helps to ensure food safety, and narrow recall impacts.

[Watch the Webinar](#)





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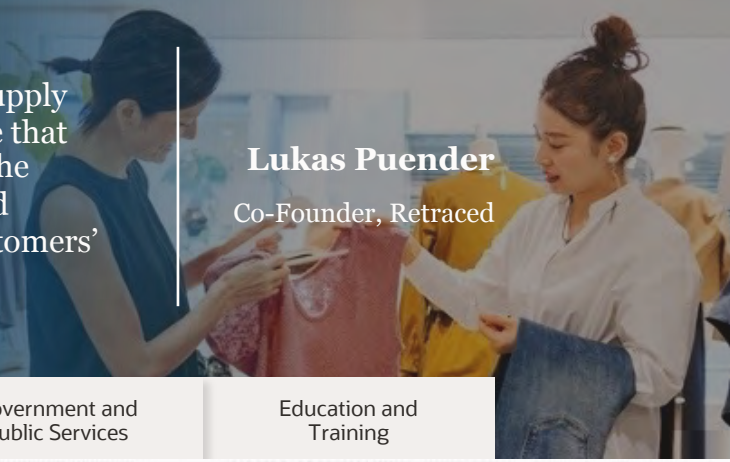
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“Globalization makes fashion supply chains very complex. We are bringing information from the supply chain to the end consumer so that he or she can really make their own mind... We had to make sure that the data we collect is actually correct and is not manipulated by anyone. With blockchain we have the chance to really make sure that the data that is stored is actually tamper-proof and can’t be changed afterwards.. Going to a proven blockchain solution helps us to really scale up the business. Our customers’ products are verified 100% sustainable with Oracle Blockchain.”

Lukas Puender  
Co-Founder, Retraced



### Authenticated provenance of luxury goods

Everledger provides retailers and consumers with trusted provenance information across the entire product journey, linking raw materials, certifications, and manufacturing processes for diamonds and fashion products. This ability to transparently track, using OCI Blockchain Platform, the provenance and lifetime journey of assets as they move across global supply chains is especially critical for high value goods, which are more susceptible than most to theft, fraud and counterfeit. The high confidence this brings to retail transactions, helps to drive repeat business for retailers. The key to Everledger’s success is enabling the ease of systems interaction and providing end clients more innovative capabilities, in particular with improved time to market for business intelligence.

[News Release](#) | [Blog](#) | [Video](#) | [Forbes Article](#) | [FashNerd article](#)

### Real-time retail rewards linked across ecosystem

OCI Blockchain Platform enables a network that united the world of sports-enthusiasts, clubs, teams, and events—on one platform built by Dhimahi for a large sports retailer, Decathlon. It tracks tokens customers earn by shopping in any of the Decathlon stores in certain regions, and seamlessly redeem the rewards at one of the partners on the blockchain network – to buy tickets to a game, lessons, club memberships, etc.

[Blog](#) | [TechData Article](#)

### Traceability of recycled plastics used in making consumer and industrial goods

Powered by OCI Blockchain technology, Oceanworks and Keep Sea Blue provide traceability platforms and certifications that are used to encourage effective plastic waste collections from oceans and beaches, linked to sustainable reuse and certification of products made from the recycled materials. Oceanworks uses Oracle’s [Intelligent Track & Trace](#) SaaS application built on OCI Blockchain Platform, and Keep Sea Blue uses a custom application built on the same platform.

[Keep Sea Blue Story](#) | [Video](#) | [Oceanworks Story](#) | [Oracle for Startups Video](#)

### Franchise ecosystem invoicing & inventory tracking

OCI Blockchain Platform helped to remove inefficiencies and improve trust in the franchise ecosystem handling invoicing transactions for over 3M people and document exchanges of over 200 document types, including orders, delivery notes, receipt acceptances, and invoices, among many others. SERES has developed a decentralized application that increased transparency and security of EDI-based invoicing transactions, while speeding up exchange of over 100 million documents annually for franchisors and franchisees. This helped to make acceptance of goods by franchisees more efficient and eliminated settlement delays caused by discrepancies in discount-coupon payments, as well as reducing delays, risk, and high fees of intermediaries.

[SERES Story](#) | [SERES Site & Video](#)

### Ethical and verified sourcing for fashion industry products

Retraced developed a platform to enable fashion brands to verify, using OCI Blockchain Platform, sustainable sourcing of materials and authenticity of artisanal production and provide end-to-end supply chain visibility to the consumers. Global fashion Industry is cloaked in mistrust and uncertainty. Little is known about how our clothing items are made, under what labor conditions, which raw materials are used, and how the process is affecting our planet. Dynamic supply chains and frequent supplier churn makes the tracing more complex and cost intensive. Retraced solution enables tracing between suppliers, manufacturers across various tiers down to employees and out to consumers along with impact data collection for environmental, social impact and animal well-being, e.g., CO<sub>2</sub> & water use footprint.

[Retraced Story](#) | [Blog](#) | [Tech Blog](#) | [Ecotextile News Article](#) | [Video](#) | [Forbes Article](#)







“To build the underlying blockchain network for its global trade operating system, GSBN partnered with Oracle to harness its Oracle Blockchain platform in Oracle Cloud, which is recognized as one of the leading distributed ledger platforms for building an enterprise-grade, permissioned blockchain. By using blockchain technology, GSBN is able to enable collaboration between disparate and often competing market participants.”

Bertrand Chen  
CEO, GSBN



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### Maritime shipping logistics and documentation

Global Shipping Business Network (GSBN) is a decentralized consortium of container carriers and ports, whose members handle 1-in-3 shipping containers in the world uses IQAX solution on OCI Blockchain Platform’s distributed ledger to replace one-to-one connections with trusted collaboration, increasing efficiency, providing shipment visibility and transparency through a single source of truth, effectively removing the need for third parties. It facilitates tracking, automated cargo release, and trusted interaction with the banks providing trade finance.

[Oracle Customer Success Stories](#) | [Video](#) | [Blog](#) | [Ledger Insights Article](#) | [Container News Article](#)

### Product content and royalties tracking in certified manufacturing ecosystem

Manufacturing supply chains that transform raw materials into intermediate products and ultimately final consumer or industrial products depend critically on integrity of information and transactions flowing through the ecosystem. Using OCI Blockchain to represent raw materials, intermediate, and final products as tokens, allows patent owners and their supply chain partners to more effectively track inventory and shipments of these digital twins as well as calculate the royalties accrued and payments based on shipments. Multi-tiered product composition tracking helps to ensure authenticity to retailers and consumers.

### Export/Import Secure Logistics Document Exchange

Structured document management and exchange for trade logistics using OCI Blockchain Platform. Launched by India Ministry of Commerce, SLDE platform built by CargoExchange enables structured, secured and transparent blockchain-based digital document management and exchange platform where all the logistics stakeholders can collaborate in real time for customs clearance, international trade facilitation, cargo handling at seaports, as well as information and registration systems for freight operations and vehicles. Banks can use India government-sponsored SLDE to manage Letters of Credit (LCs) and other trade documentation.

[The Economic Times Article #1](#) | [News Release](#) | [The Economic Times Article #2](#)

### Intercompany billing and reconciliation among conglomerate’s divisions

By creating a distributed ledger of intercompany POs and Invoices, validated and reconciled by smart contracts, OCI Blockchain delivers near real-time matching, validation rules and controls codified in smart contracts, robust bi-directional ERP integration, and netting-based settlement. Built in collaboration with Deloitte, this core intercompany financials solution is extended with automated exception/dispute tracking and sophisticated analytics.

[Watch the Webinar](#) | [GE Conference Presentation](#) | [Blog](#) | [Hyperledger Showcase](#)

### Sustainable and ethical sourcing of critical and conflict minerals

Oracle Blockchain-enabled Circular traceability platform for high-risk critical raw materials across the electric vehicle batteries supply chain ensures trusted provenance from legitimate mines and producers through component and battery manufacturers, and tracks CO2 emissions related to production of battery units and transportation of the materials they depend on for auto makers, like Volvo, Polestar, Jaguar, Mercedes, etc.

[Cointelegraph Article](#) | [Video](#) | [Blog](#) | [Conference Presentation](#) | [Ledger Insights Article](#)

### B2B platform for inventory visibility, SLA enforcement, geo-origin and authenticity

A secure B2B transaction platform, markets[N], deployed on OCI Blockchain Platform by KoineArth for Hindalco Industries, enables enterprises with suppliers, channel partners, banks, and contract manufacturers to coordinate work order progress in the contract manufacturing network, gain real-time visibility into vendor’s inventory, certify and trace geo-origin & authenticity of products, enforce SLAs with smart contracts, perform continuous audit, and submit information for invoice financing.

[Podcast](#) | [Blog](#) | [Express Computer Article](#) | [Inc42 Article](#)

### Optimizing overall equipment effectiveness and predictive maintenance

OCI Blockchain Platform allows multiple factories to securely share granular data from CNC machines on component failures and repaired & replaced equipment to provide preventive and predictive maintenance analytics. This historical data enables AI/ML models that optimize machine and operator performance and guides best practices for machine operators.





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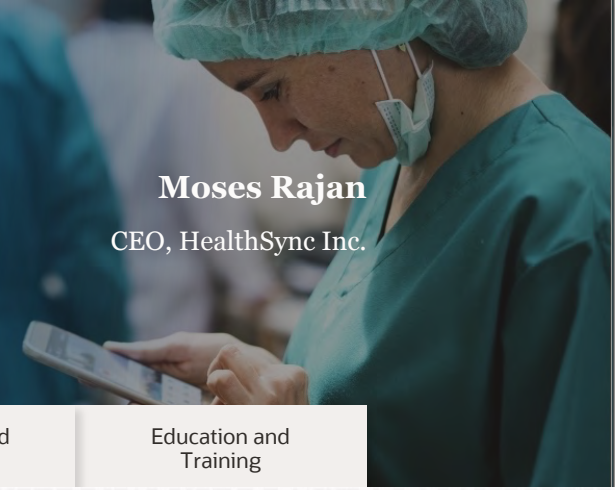
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“Healthcare infrastructures rely on siloed data, with each institution keeping independent records of the same information. Oracle Blockchain Platform enables our HealthSync Platform to aggregate data in a distributed ledger, giving providers a secure, single source of truth for better decision making.”



Moses Rajan  
CEO, HealthSync Inc.

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### Anti-fraud tracking in pharmaceuticals distribution

Fighting the growing problem of fake or compromised drugs using OCI Blockchain Platform’s distributed blockchain ledger and IoT to register and track all touchpoints in the drug’s movement, leaving no scope for tampering. This solution spans all the participants from the manufacturer to the point of sale and integrates tracking data from key enterprise and distribution systems: ERP, Inventory, CRM, and POS as well as geo-location data and temperature excursions reported by IOT sensors.

[Financial Express Article](#) | [Oracle Article](#) | [Government Report \(Use Case #2\)](#)

### Pharmacological supplies traceability in clinical studies

The pharmaceutical clinical supply chain often relies on spreadsheets and manual updates to record the movement of medicines involved in clinical trials. This can cause problems with the regulatory reporting, hamper the drug accountability at trial sites, and make it harder to track the investigational product through the different hand-offs before it reaches the patients involved in the trials, as well as through returns handling of any unused products. Using OCI Blockchain Platform to track digital inventory and events in the pharmaceutical clinical supply chain enables greater trust, automated hands-off processing, and simplifies regulatory reporting with built-in audit trails.

[Applied Clinical Trials Article](#)

### Electronic health records sharing

Healthcare industry has been struggling to achieve holistic views of patient’s health information in light of fractured data siloes maintained by hospitals, clinics, labs, individual doctors, pharmacies and others. The challenges of security and privacy across diverse data repositories are solved by a distributed ledger providing an index that stores patient visit and interaction events with location and verifiable hashes for the actual health records maintained by various providers. Patients are uniquely in charge of providing permissions to their doctors, which can self-register in the system and be granted controlled access to any records maintained by other providers.

[Blog](#) | [Pharmaphorum Article](#) | [Blog #2](#)

### Immutable and trusted testing results reporting for public health surveillance

OCI Blockchain Platform helps with tamper-evident recording of health test results and related data to ensure transparency in capturing, recording, and reporting of relevant statistics. With wider availability of rapid testing kits and their use outside the traditional labs, results reporting to state and national agencies needed a reliable, tamper-proof, and secure solution. Using OCI Blockchain nodes to link test venues, manufacturers, and government agencies ensured real-time results reporting protecting integrity of data and identities.

[Blog](#) | [Solution Description & Demo](#) | [Webcast](#)

### Remote tracking of patient vitals for distributed healthcare team

In healthcare giving the right data to the right people at the right time can save lives. Using OCI Blockchain Platform’s technology creates a seamless ecosystem that keeps the patient’s distributed team of care providers in sync in real-time. Frequent telemetry reports from wearable or at-home devices, such as heart rate, blood pressure, etc. can provide early alerts of onset of dangerous conditions. Tracked and correlated on blockchain and transparently visible to the distributed team of care providers, these alerts can trigger timely intervention and response.

[Healthsync Story](#) | [Video](#)

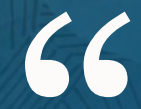
### Verifiable immunity and test status certification

While policies in different countries and voter sentiments disagree about immunity passports, in November 2021 over 60% of Swiss citizens voted for use of certificates to show proof of COVID19 vaccination, recent immunity or a negative test. Based on a solution built on OCI Blockchain Platform, such a digital, indelible, and 100% GDPR compatible immunity and vaccination certificate can be presented with one click from a smartphone at any time to any store, restaurant or government authority who requests it.

[Blog](#) | [Le Temps Article](#)







The Pilot has successfully demonstrated the potential of the solution to enhance efficiency of Excise Operations of Nigeria Customs Service. By leveraging the blockchain Service, we will be able to generate irrefutable records of all transactions thereby guaranteeing revenue assurance for the NCS as well as improving international acceptability of Nigerian exports. It is expected that once the Excise Trade Automation on Blockchain is fully completed, NCS will see a revenue growth increase of about 50%.

**Abbe Benjamin**  
Assistant Controller General  
CIO Nigeria Customs Service



**Export license issuance and excise tax tracking**

Customs service in an African country developed an Oracle blockchain-based replacement for an inefficient and fraud-attracting export licensing process and excise tax collection to reduce fraud and improve compliance with excise taxes.

[Video](#)

**Forensic evidence verifiable chain of custody across agencies**

National criminal investigations in Europe track evidence chain of custody on an Oracle blockchain that connects multiple divisions and forensic labs to provide full visibility of custody changes and integrity of digital evidence, which simplifies consensus with internal and external partner agencies and increases public trust.

**Explainable and trackable AI/ML in government operations**

The growing use of AI/ML in government come concerns about the accuracy of their results and potential biases from the training datasets. One US agency explored using an immutable ledger in Oracle blockchain to track the training datasets, ML model versions, and execution trace of its models to provide better visibility of the history over the lifecycle of the model in order to ensure stronger controls over the outcomes and identify any reasons for their divergence.

**Verifiable country-of-origin and other trade certifications**

Cross-border Open Trade Blockchain (OTB) initiated in Singapore connects many countries in Asia to allow companies to register country-of-origin certificates and supporting documentation, enabling their customers to easily and quickly verify their authenticity. It also ensures effective compliance with contractual terms and obligations, which are encoded directly in the system, improving efficiency, reducing cost and fraud in cross-border trade.

[Ledger Insights Article](#) | [GeTS Presentation](#)

**Immigration document and visa tracking**

Oracle Blockchain Platform helps manage visa cases and track documents in the Middle East as immigrant workers transfer across employers to improve efficiency and transparency across partner agencies, employers, and other stakeholders, accelerating the processing and helping to prevent fraud.

**Multi-tiered grants distribution and tracking**

US government grants are often sub-divided by the grantees into smaller grants to other recipients, which makes tracking more complex and auditability harder to manage. Using a permissioned blockchain for end-to-end tracking of the grant awards, related documentation, payments distribution and expense categories across multi-tiered chain of recipients provides immediate visibility, automates controls via smart contracts, reduces fraud and waste, and simplifies audits with integrated reporting and analytics. This ultimately frees researchers' time for more research.

[GCN Article](#)

**Local decision-making and voting by citizens residing abroad**

Some municipal initiatives began to leverage blockchain e-voting when selecting candidates, answering referendum questions and other local decision-making processes. And some countries and provinces with large numbers of citizens living abroad are looking to provide better tools for their citizens to participate in the election processes with secure remote voting mechanisms that ensure transparency, privacy, and eliminate fraud. Solutions using OCI Blockchain Platform to track verified identities of voters to issue ballots and enabling anonymous tracking of actual ballot responses help to improve the voters' experience and raise voter's confidence in election integrity.

[Blog](#)

**Verifiable lottery tickets and winnings redemption ledger**

A socially-responsible gaming company in Asia operated under Ministry of Finance developed a solution on Oracle blockchain to provide traceability and immutable records for the users of its betting pools to manage digital bet slips and track winning tickets.





“When we moved to Oracle Cloud, we reduced our working time and optimized our performance time with universities. While using the Oracle Blockchain platform, it is nice that software developers can focus more on the chain code...rather than building a chain.”

Dr. Jinho Lim  
Deputy CEO  
Technology Research  
Institute, Dain Leaders

Banking and Financial Services	Food, agriculture, and CPG	Retail	Manufacturing and Logistics	Healthcare and Life Sciences	Government and Public Services	<b>Education and Training</b>
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### Smart education credentials in Higher Ed and Continuous Education

OCI Blockchain Platform enables colleges and professional education providers to issue tamper-proof credential certifications along with verifiable transcripts for self-sovereign access sharing by students. This solution can be deployed by a single academic institution, in a consortium of Universities, and even across a state or national system of Higher Education. It is also used by professional education providers whose courses support the continuous education requirements in legal, medical, accounting, and other fields.

[Video](#) | [The Times of India Article](#) | [Video \(Chinese\)](#)

### Transcript sharing and transfer credit & articulation

Students transferring from one college or university to another depend on transfer articulation to apply credits earned in certain programs at one institution to programs at a second institution. Blockchain provides the tamper-evident digital ledger that facilitates collaborative efforts between institutions involving sharing transcripts and assessing how course credits map across programs in order to ultimately reflect previous coursework on students' transcripts as work that counts for new university's credit.

### Study abroad matching and certifications

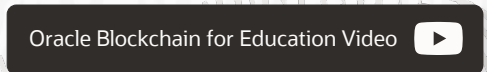
Study abroad is an exciting opportunity for many students, but it involves a lot of collaborative tasks and information sharing with the extended education ecosystem of the universities, accreditation and related agencies, as well as prospective employers. An Oracle Blockchain-based study abroad platform in South Korea is used for international student matching service that recommends appropriate study abroad courses according to the conditions set by the user and streamlines the process from blockchain-based online acceptance to proven broker matching, and post-entry stay management.

[Dain Leaders Story](#) | [Insider Article](#) | [Blog](#)

### Employment training certifications

In the rapidly evolving economies around the world, re-training employees for new jobs is a top priority. With this, there's a need for efficient and trusted secure generation, authentication, sharing, and verification of any kind of training or academic certificates. A solution built on Oracle blockchain make this a snap and creates value for the entire ecosystem by delivering Trusted Credentials-as-a-Service.

[Video](#) | [Business Wire India Article](#)



# No assembly required

OCI Blockchain Platform comes with a complete set of infrastructure services and embedded resources that help you quickly set up and run a production-ready blockchain. The only managed enterprise blockchain service with financially-backed 99.95% SLA providing maximum availability via automatic deployment and replication across availability domains and fault domains in OCI regions.

Easily create an instance of OCI Blockchain Platform in many OCI regions around the world.

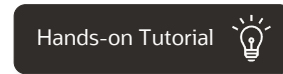
After you specify a few parameters, OCI provisions the comprehensive platform with:

- Underlying resources and infrastructure services: compute, containers, network, storage, secrets vault, identity management, metrics monitoring
- [Hyperledger Fabric](#) nodes including membership services, peer nodes, and ordering service deployed in a Standard or Enterprise configuration, which is automatically replicated for High Availability
- Plus Oracle value-add components: admin & operations Console, API gateway, off-chain data synchronization, and low-code Blockchain App Builder dev/test tooling

Connect via the [Console](#) and explore included samples or deploy your own chaincode on a production-ready Hyperledger Fabric blockchain and in minutes you can start invoking transactions using pre-configured REST APIs.

Need a partner to join your network? No problem. They can create an OCI Blockchain instance configured to join an existing network, either locally or globally. Provision the service in any supported Oracle Cloud region and complete the guided process by simply logging in to the OBP web console to complete the certificate exchange and join the existing blockchain network.

Exploring enterprise tokenization? Built-in support for auto-generation of token chaincodes in the low-code/no-code [Blockchain App Builder](#) dev/test tool makes it a snap to create and deploy token smart contracts to initialize, mint, transfer, and burn fungible tokens & NFTs. Add custom methods on top to create a custom tokenization solution.



## Pre-assembled blockchain platform

Start with a [production-ready](#) Hyperledger Fabric blockchain, including membership services, peer nodes, and ordering service, plus a bi-directional API Gateway and Operations Console from Oracle.

## Maximum availability architecture

The only managed enterprise blockchain platform-as-a-service with [99.95% financially-backed SLA](#) – Enterprise configuration is automatically deployed and replicated across three availability domains in OCI regions.

## Dynamic scalability

Start with a small configuration and easily [scale up or scale out](#) when workload needs higher capacity. Expand the compute or storage resources, or scale individual peers, orderers, and other components without a restart.

## Enterprise integration

Using built-in API gateway, easily integrate with client modules or enterprise applications via [REST APIs](#) to drive transactions, query the ledger, or subscribe to events. Extend integrations via [client SDKs](#) or pre-built [adapters](#) to many ERPs and other enterprise applications.

## Easy network expansion and partner on-boarding

Easily [add partner nodes](#) locally or globally in other OCI regions and complete the guided process to join the new organization. Easily join a 3rd party Hyperledger Fabric node from another cloud. Or add custom enrollments for client organizations on shared multi-member instances.

## Live analytics and AI/ML integration

Using built-in [off-chain data synchronization](#), enable connection to Oracle Database to stream transaction history and state changes to rich history database schema for [analytics](#) dashboards, data integration with other enterprise systems, or [machine learning](#).



# Let smart contracts' business logic enable automated updates and trusted transactions across the participating organizations

The value of the trusted business network goes beyond sharing static information. It's also about conducting trusted transactions, validating ledger updates based on codified rules, and triggering events to other systems. This is where smart contracts provide the business logic and multi-party endorsements to handle many ecosystem interactions, e.g.:

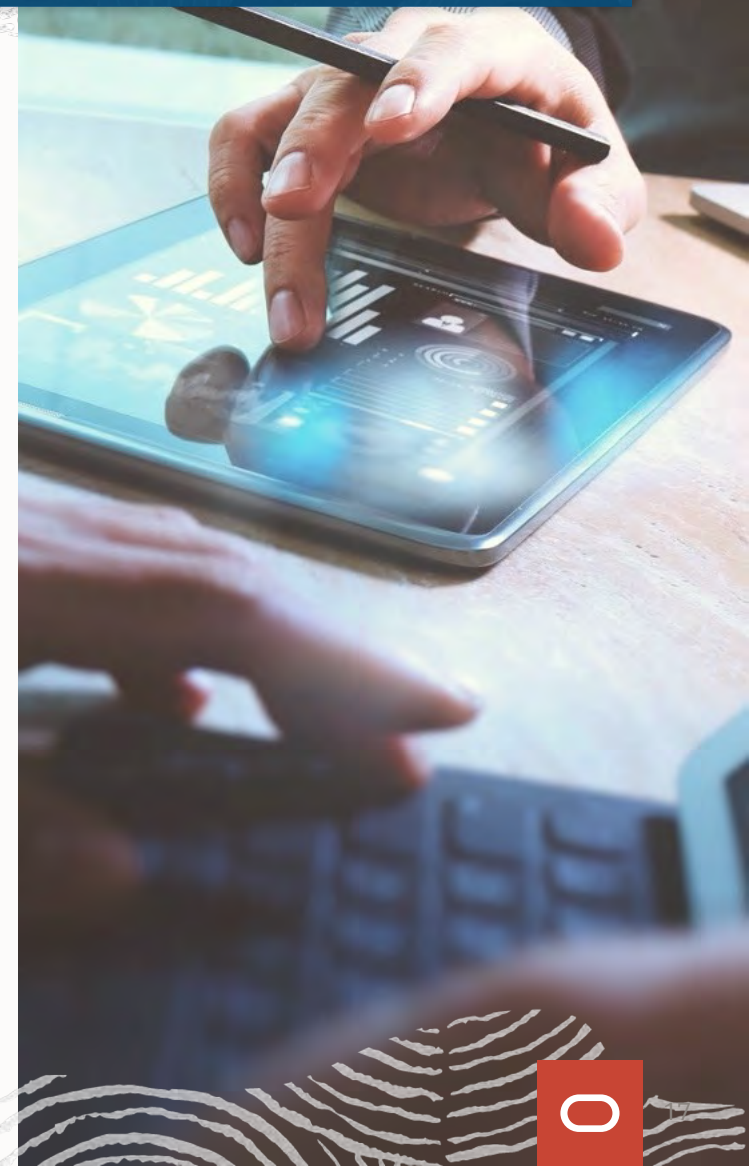
- Verify account balances and escrow conditions before transferring funds across banks' foreign subsidiaries.
- Check that a proposed sales order complies with certain requirements.
- Ensure that pharmaceuticals hand-offs in distribution chain are verified to avoid fraud.
- Mint and transfer tokens or other assets between parties after conditions are met.
- Match purchase and sales orders with shipping confirmations or reconcile invoices with purchase orders and verified receipts across multiple ERPs, then trigger payments.
- Update a product's provenance record based on verified origin or its composition as part of supply chain tracking.
- Record the solar panels output and calculate the CO<sub>2</sub> saving based on feed-in tariffs and replacement for utility-supplied energy.

### And much more...

Many manual or semi-automated processes that today rely on informal exchange via B2B file transfer, EDI, or emailed spreadsheet attachments with the risk of human errors and potential for fraud can be automated using trusted, real-time blockchain transactions. Whether implemented across a company's far flung business units or a consortium of organizations doing business together, the result is more flexible than point-to-point API integration, more real-time than B2B file transfers or EDI, more verifiable than emailed spreadsheets.

In addition OBP supports [tokenization](#), which enables users to represent physical or digital assets as tokens that can be created and recorded in a blockchain ledger and transferred between users. Beyond the use in financial services to represent financial assets and payments, tokenization applications exist in real estate, loyalty/reward programs, inventory management, royalties, carbon credits, intellectual property rights, and most lately – unique digital art, collectibles, fan engagement, and IP rights from the world of sports and entertainment using NFTs. In many innovative business models tokens can be exchanged with fiat currencies or with any other tokens to create value and enable trading or other modes of exchange in the system.

Watch a webinar about smart contracts in enterprise use cases



# Generate smart contracts from declarative specifications and automate deployment

To take faster advantage of the great infrastructure capabilities of OCI Blockchain, we include low-code Blockchain App Builder to help with Dev-Test-Deploy lifecycle. This toolset with a command line and Visual Studio Code extension GUI automatically generates smart contracts from declarative specs and aids in their further development, local testing, automated deployment, and maintenance.

In the [Blockchain App Builder](#), you can tailor an existing or create a new a specification in either YAML or JSON to define multiple assets, their attributes and validation rules along with CRUD methods to be generated and any custom methods you plan to add. In addition to generic asset types, assets can be defined as fungible (FT) or non-fungible tokens (NFT) with the expected behavior rules derived from the emerging tokenization standard - [Token Taxonomy Framework](#) and the de-facto ERC-20/ERC-721 implementations.

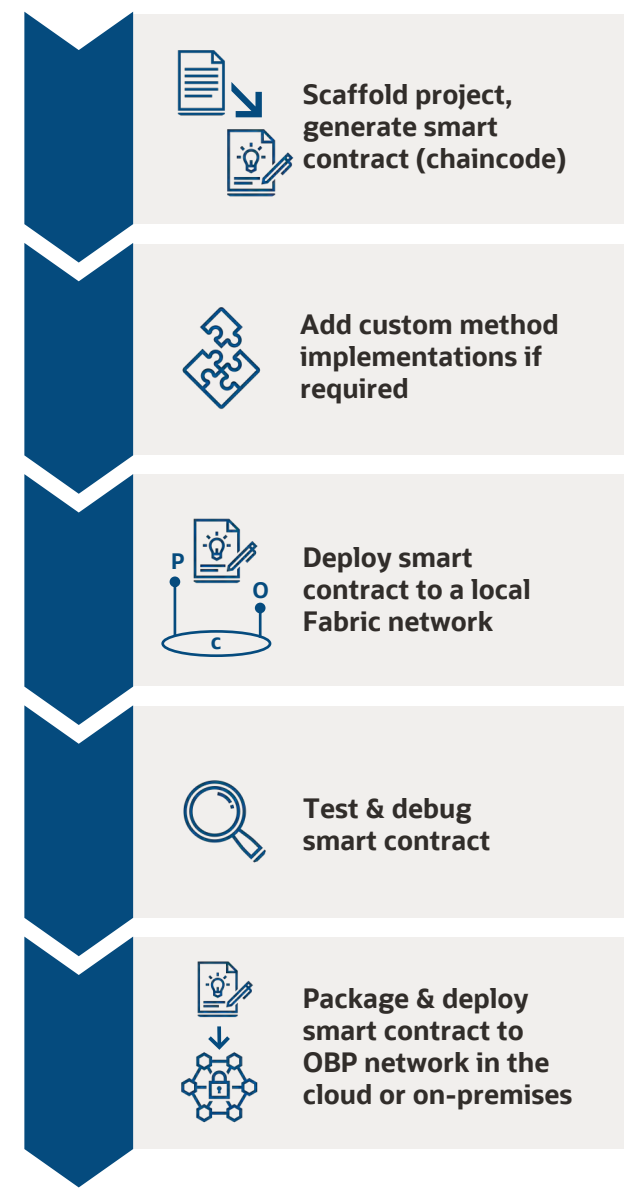
Using tailored specification the App Builder automatically generates Go or Typescript chaincode methods for the necessary Create/Read (Query)/Update/Delete (CRUD) operations on general assets or token lifecycle methods (Create/Transfer/Escrow/Burn...), extended with role-based security and many wrapper functions for simplified operations. These can be immediately invoked via published APIs or extended with custom methods.

The generated chaincode can be deployed onto the local Hyperledger Fabric network within the App Builder for rapid testing and debugging using VSC tools.

Once tested, you can easily package or deploy it to an OBP instance. After deployment, all the methods can be invoked via RESTful APIs as well as through the client SDKs. Maintenance is a breeze – update the specification and new chaincode is automatically re-generated and re-deployed as a new version to ensure consistency.

In addition to the easy to use, intuitive GUI delivered as Visual Studio Code extension for interactive development, a lightweight robust Command Line Interface is also available for power users and CI/CD automation.

This integrated dev/test/deploy tool greatly speeds up creation of blockchain applications and significantly improves developer productivity. You can easily generate, deploy, and try out new use cases in days. With automatic chaincode generation, no in-depth development skills are necessary for simple use cases using the CRUD operations or token lifecycle. Built-in token support on top of the secure, permissioned blockchain network opens the door to exploring numerous enterprise tokenization use cases.





# Flexible development options to create new and extend current applications

Start developing blockchain applications within minutes using the low-code **Blockchain App Builder**. Adopt API-first development strategy for cloud or on-premises applications using RESTful APIs to invoke smart contract transactions or query ledger data. Subscribe to events and use reliable callbacks to update back-office systems and trigger downstream applications.

In addition to REST-based integration with smart contracts, Hyperledger Fabric client SDKs for Java, Go, and Node.js (JavaScript) can also be used to enable applications to enroll members, subscribe to events, and run transactions or query ledger data using client components deployed anywhere.

Enterprise IT developers working with Oracle and third-party SaaS and on-premises systems can quickly create effective orchestrations that link blockchain transactions or queries with unique enterprise adapters and workflow tools in OCI Integration Services or on-premises SOA Suite. The result allows application-specific events, e.g., submitting a PO in an ERP, creating shipment request in OTM, or adding a new hire in HCM to update blockchain ledger as well as consume blockchain events in order to update invoice status in an ERP system or new hire's security clearance status in an HCM. You can also trigger blockchain transactions and queries or subscribe to events from OCI Visual Builder, Kubernetes Microservices, or Oracle Application Express (APEX) in OCI or, in a hybrid scenario, from components running outside the Oracle Cloud.

Developers can also build blockchain native new applications or SaaS extensions to interact with blockchain smart contracts from Oracle Cloud ERP, SCM, HCM, and CX solutions, industry applications, such as Oracle FLEXCUBE core banking, Digital Innovation Platform for open banking, and integrations with on-premises or cloud-deployed ERPs such as Oracle E-Business Suite, JD Edwards, PeopleSoft, Oracle Transportation Manager, SAP, Salesforce and others.

Watch webcast on Intercompany Reconciliation – **Integrating ERPs with Blockchain**



## Restful API and event-driven development

Simplify integrations by invoking transactions and queries invoking chaincode methods through [RESTful APIs](#) in synchronous or async mode. Subscribe to events and use reliably delivered callbacks to integrate with back-office systems and downstream applications.

## SDK-based client development

Enroll new members, manage channels, register for events, and run transactions or query ledger data using client components built in Java, Go, or Node.js with Hyperledger Fabric [client SDKs](#).

## Easy integration with ERPs & other systems of record

Enable Oracle and third-party SaaS and on-premises systems to invoke transactions or query blockchain nodes through unique enterprise [adapters](#) and workflow tools in Oracle [Integration Services](#). Simplify orchestrations with back-office applications using bi-directional event subscriptions with callbacks.

## Blockchain-native apps

Use [cloud-native tools](#) to build new applications or SaaS extensions to invoke transactions on the blockchain or to query the ledger using IaaS Compute VMs, Java services, Mobile Hub, serverless Oracle Functions, Oracle Kubernetes Engine, APEX, Visual Builder, etc.

## Oracle Apps extensions using blockchain

Leverage out-of-the-box Blockchain integration in Oracle FLEXCUBE [Universal Banking](#) and [Investor Servicing](#) as well as [Oracle Financial Services Digital Innovation Platform](#). Use [integration adapters](#) and RESTful APIs to integrate with Cloud ERP, Netsuite, SCM, HCM, and CX applications as well as on-premises or cloud-deployed ERPs from Oracle and others.

# If you need transaction privacy, OCI Blockchain Platform has the answer

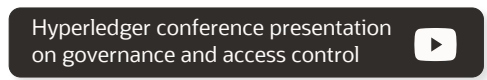
Even in a permissioned network, not all business data or PII exchanged between members is suitable for sharing with all participants. With OCI Blockchain Platform you can provide confidentiality and control member access easily at multiple levels of granularity.

Unlike public blockchains where anyone can join, in a permissioned blockchain the members can invite or permit only specific participants to ensure only authorized organizations can access the ledgers and smart contracts. Using pre-integrated Oracle Identity Cloud and federation options, as well as PKI certificate attributes, node administrators can define and manage account and roles to control member's privileges.

They can also control access to specific ledgers on defined channels and add read-only members to a channel to provide specific ledger visibility for auditing purposes. The power of channels to isolate ledgers and members, who can access them enables parties to conduct confidential transactions. Admins can dynamically create channels in the Console's Web UI or programmatically through REST APIs, define authorized members and their roles, then join specific peer nodes to maintain ledger copies and run smart contracts. By defining detailed policies, you can use the channels for sharding to increase scalability, or to isolate groups of members with specific access to separate ledgers, smart contracts, and related transactions.

Within each channel, sub-groups of members can establish Private Data Collections of one or more members, to control dissemination of private data via their side databases, which are shared only with other authorized members, with one-way hashes used to prove the transactions added to the channel ledger. GDPR compliance can be provided by aging out the data in private collections. Additionally, for restricting access within the ledger, fine-grained access control can be enforced in the smart contracts themselves limiting access to data and functions based on on-chain Access Control Lists (ACLs).

Auditing of the ledger integrity as well as of any configuration changes is another enterprise enhancement embedded in OCI Blockchain. You can validate the integrity of the ledger blocks comprising the chain via an API. To monitor admin actions and any configuration changes, an audit log is implemented via blockchain transactions, which can be retrieved on demand or by subscribing to relevant events in order to ensure visibility and auditability of any administrative operations.



## Permissioned blockchain with identity management

Control addition of [network participants](#) and [client-only members](#) to ensure only authorized organizations can access permissioned blockchain. Use pre-integrated Oracle [Identity and Access Management](#) with Identity Domains and federation options to define and manage accounts and roles to control member's privileges.

## Set up channels for confidentiality via isolated ledgers

Dynamically create [channels](#) in the Console's Web UI or programmatically as needed through REST APIs, define authorized members and their roles, then join their peer nodes. Channel ACLs can be used to control member privileges, and read-only access used for auditing members.

## Set up private data collections

Control which channel members can see and store [private data](#) in their side databases, shared only with other authorized members, with one-way hashes used to prove the transactions added to the channel ledger.

## Use fine-grained access control

Define identities and groups, then combine with resources and operations to create access control lists ([ACLs](#)) stored and tracked on-chain, which can be checked via APIs in chaincode to enforce access permissions to data & smart contract functions based on requester's identity.

## Built-in auditing

Use APIs to request [on-demand verification](#) of the ledger blocks' integrity, to retrieve [audit log](#) of configuration actions or subscribe to [audit events](#) to be notified of specific types of activities.



# Extend the network across members and geographies

With OCI Blockchain Platform, the network can easily expand to add new members next door or across the world. Deploy new instances in multiple Oracle Cloud regions, on-premises, and other clouds around the world to connect organizations across countries and continents.

Your partners can sign up for their own instance of OCI Blockchain Platform to join an existing network. After their instance is provisioned in any of the OCI global data centers, you can have them join your blockchain network by exchanging the digital certificates. Then, their peer nodes can join any channels they are authorized for in order to securely conduct transactions and share updates. A global enterprise can operate local peers in multiple regions and still be a part of the same blockchain network. You can also deploy Enterprise Edition of the blockchain platform on-premises or in 3rd party clouds for multi-cloud or hybrid topology.

Connect non-Oracle blockchain nodes from other clouds and any vendor supporting Hyperledger Fabric as part of a multi-cloud network. With the open source Hyperledger Fabric from the Linux Foundation, you get to leverage the power of the most advanced enterprise blockchain community. Multiple organizations can run and contribute ordering nodes to the blockchain network, enabling greater decentralization, privacy, scalability, and resilience through geo-redundant ordering clusters. You can also associate channels with different ordering clusters for even greater privacy and/or scalability.

When cross-ledger interoperability is required, Hyperledger and partner-built interoperability gateways enable you to orchestrate business processes across OCI Blockchain and non-Fabric blockchain networks, such as Ethereum, Corda, Quorum, and others.

## Interoperability resources

- [Documentation on joining non-Oracle Hyperledger Fabric nodes](#)
- [Read about multi-cloud interoperability](#)
- [Bridge to Cross-Ledger Blockchain Interoperability](#)



## Globally available

Deploy blockchain instances in multiple Oracle Cloud [regions](#) around the world to connect organizations across countries and continents.

## Multi-cloud and hybrid deployment

Extend OCI Blockchain Platform networks by [connecting organizations](#) deployed on-premises or in third-party clouds, leveraging Oracle Blockchain Platform [Enterprise Edition](#), open source Hyperledger Fabric or other Hyperledger members' nodes.

## Decentralized ordering

Based on [Raft](#) ordering protocol, multiple organizations can [run and contribute ordering nodes](#) to the blockchain network, enabling greater decentralization, privacy, scalability, and resilience through geo-redundant ordering clusters. Associate channels with different ordering clusters for even greater privacy.

## No lock-in, Open Source-based and fully compatible

Connect [non-Oracle blockchain nodes](#) from other clouds and any vendor supporting [Hyperledger Fabric](#). With the open source Hyperledger Fabric from the Linux Foundation, leverage the power of community.

## Integrate with other ledgers and technologies

Use multi-ledger orchestration gateways, such as open source [Hyperledger Cactus](#) or commercial solutions to integrate with non-Fabric blockchains and transfer tokens and other assets, post hashes of permissioned transactions on public chains, and conduct other cross-ledger business processes.



# Intuitive UI Console and DevOps API's for configurations and operations

Blockchain set-up, administration, and monitoring has never been simpler.

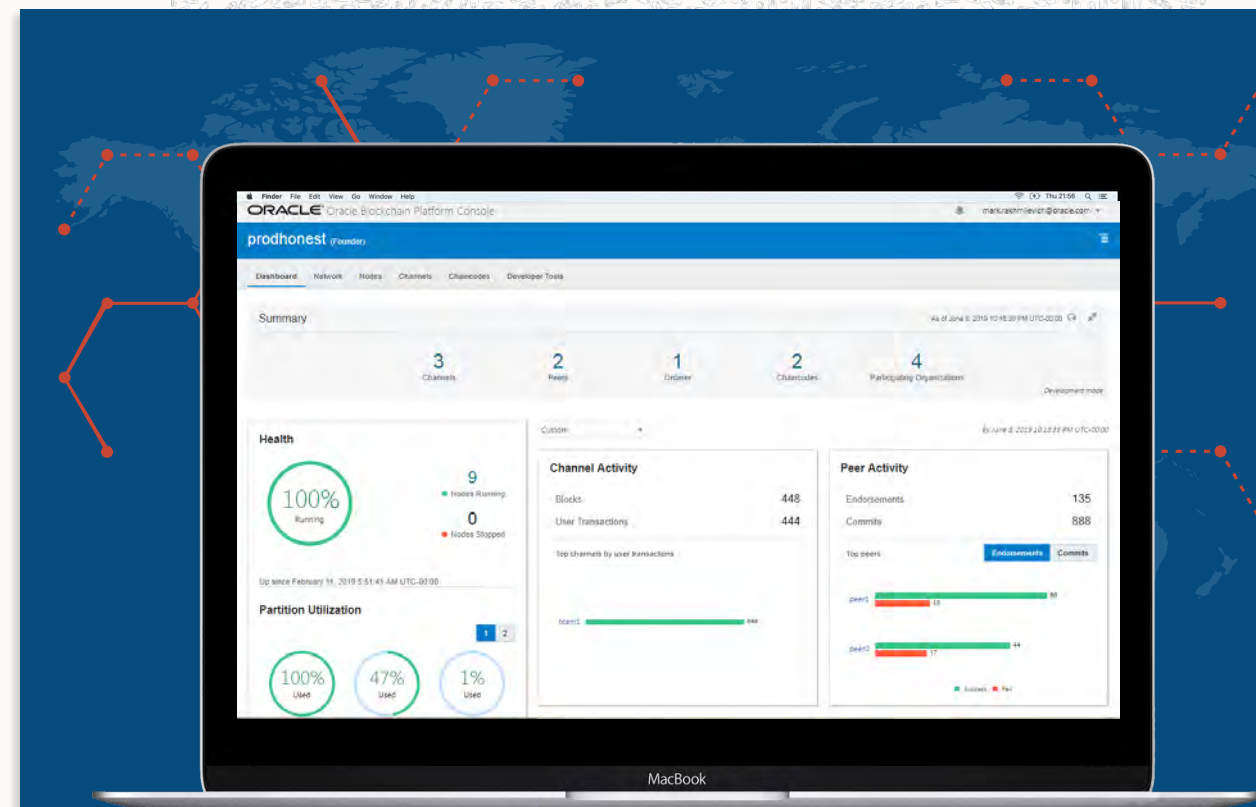
With the robust capabilities embedded in OCI Blockchain Platform service administrators can use the platform's web Console's UI or its REST APIs to configure the blockchain network, add member organizations, define channels, manage all nodes – peers, orderers, certificate authority, and manage lifecycle of smart contracts.

Administrators can also [dynamically add or configure network channels](#), authorize members to join channels and set policies, deploy or upgrade smart contracts using Web console or REST APIs. They can [scale out](#) blockchain components and storage, or the entire platform, with a click of a button and without downtime.

For monitoring, you can use the [intuitive admin console](#) to view network status from dashboard or navigate to Network, Nodes, Channels, and Chaincodes tabs to view blockchain components and manage the network. You can also monitor the operations with extensive channel and peer metrics, node utilization stats, scan the ledger blocks using ledger browser, and search extensive logs with configurable logging levels. You can also [set up](#) Prometheus and Grafana to monitor multiple nodes across the network.

For auditability, configuration changes captured in OCI [Audit Log](#) and on-chain configuration audit records are retrievable via API [requests](#) and [event subscriptions](#). Ledger block integrity validation can also be requested on-demand via a chain integrity [API to verify](#) chain integrity.

Fully automated operations allow you to full focus on applications with [Oracle-managed](#) service monitoring, integrated identity management, autonomous recoverability, dynamic scalability, and zero-downtime patching and upgrades taking care of the blockchain infrastructure.



Service administrators can use the OCI Blockchain Platform web console's UI or its REST APIs to configure the blockchain network, manage its nodes, channels, deploy and upgrade smart contracts, audit the ledger integrity, and monitor blockchain operations.

View OCI Blockchain demo





Why Blockchain?

What is Enterprise Blockchain

Recognize Yourself?

Blockchain Across Industries

Create Trusted Networks

Automate with Smart Contracts

Develop or Integrate Applications

Conduct Private Transactions

Easily Extend to Customers Globally

Administration and Monitoring

Get Started



## Learn More



View advantages, customer stories, pricing, and additional resources on the OCI Blockchain Platform page →



Learn about Blockchain Platform Enterprise Edition – a licensable version for on-premises or non-OCI clouds →



Read about technical innovations and customer use cases in Oracle Blockchain Blog →



Learn how to develop blockchain applications; visit [developer.oracle.com/blockchain](https://developer.oracle.com/blockchain) and read Blockchain Developer eBook →

## Try



Sign up for a free trial at Oracle Cloud (30-day free trial under Application Development category) →



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