

NOKIA

Nokia Data Marketplace

Secure AI and data marketplace service powered by blockchain delivered as SaaS



Huge demand for real time access to trusted datasets & analytics

Business challenge: how to tap opportunity for trading data & AI models

Clear demand: Enterprises need data to drive digital transformation

75%

Gartner

enterprise apps need 10 external data sources on average

82%

IDC

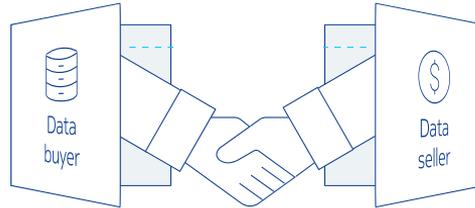
enterprises consider 'Data as a Service' critical for future competitive advantage

93%

IDC

of large enterprises will sell data as a service

CSPs & Enterprises' challenge: multiple issues in data exchange & marketplace



Siloed availability of internal data

Data privacy and regulations

Real time data visibility and exchange

Lack of data and models to generate AI/ML insights

Need: way to monetize through secure trade of data and AI models

\$ 3.6 T

Market value of data transactions via exchanges by 2030*

\$ 4.4 B

Blockchain enabled IoT data marketplace revenue by 2030*

*Source: Accenture "The dawn of the data marketplace"

Nokia Data Marketplace

Secure data sharing, monetization and AI orchestration powered by blockchain delivered as SaaS

White label data marketplace

Enterprises (mid/large), consortiums & CSPs

Subscription & revenue share business model

Unique proposition:

Secured data exchange through private permissioned blockchain



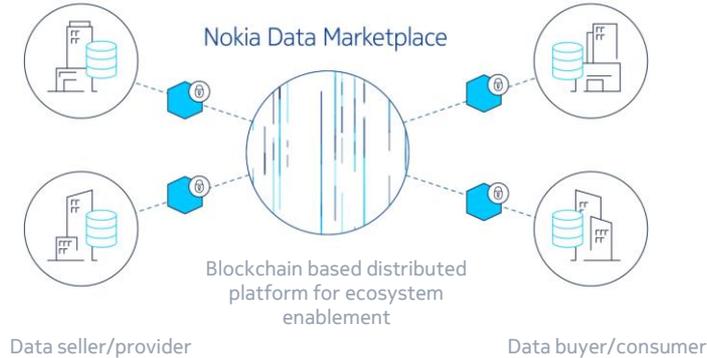
Monetization through smart contracts



Federated AI/ML for orchestration & processing at edge



Delivered as SaaS for faster time to value & business agility



Telco, Energy, Transportation, Healthcare, Smart cities, Govts.

Value:

Data driven digital transformation



Data monetization



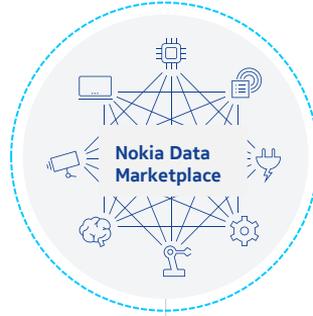
Innovative use-cases for transforming industry verticals

Healthcare, government, smart cities,..

Health data marketplace	AI orchestration
IoT data monetization	Sports data marketplace

Telco (including tower companies)

IoT data monetization	Network/subs./ location data monetization
Roaming & settlements	Network services marketplace (FTTx wholesale,..)



Transportation and logistics

Supply chain automation	Block chain enabled asset management
Smart mobility	Data exchange & monetization for V2X

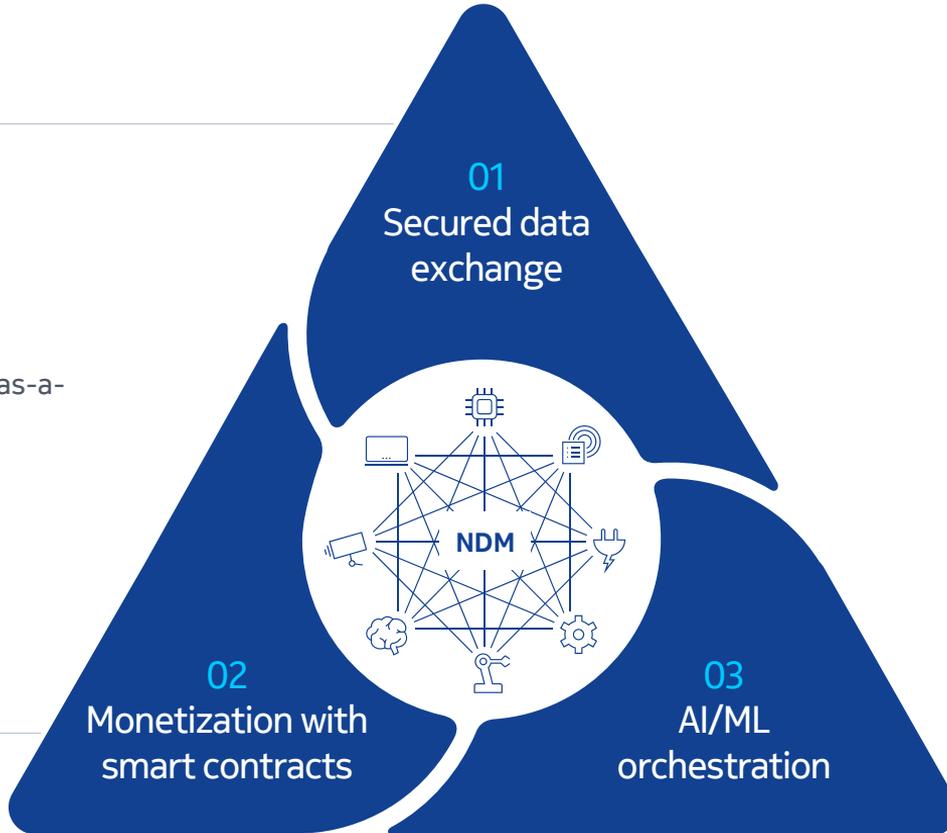
Energy and utilities

EV charging	Energy orch..& energy trading (P2P)
Smart living, homes & buildings	Smart water management

Nokia Data Marketplace to realize your potential as a data marketplace provider

Benefits

- Fast time to market with white-labeled data marketplace managed by Nokia
- Minimize upfront investment with Software-as-a-Service (SaaS) and pay as you grow business models
- Complies with data regulations
- 1-click data and AI/ML exchange and monetization with smart contracts



Nokia Data Marketplace references

Case: unlocking diverse healthcare use-cases using data exchange powered by blockchain



Equideum Health partnership to transform healthcare

- Enable multi-party ecosystem
- Apply advanced technologies in data management, data exchange & blockchain

Nokia Data Marketplace for powering use-cases

- AI/ML algorithms over patients' distributed data
- Assemble higher quality of data with identities, without centralizing
- Unlock multiple healthcare use-cases on SaaS

Use case:
Federated query for
clinical trial matching



Value proposition

Faster research

- Securely process, enrich, assemble and analyze healthcare data with advanced AL/ML

Reliability

- Insights for data driven & trustworthy line of diagnosis & treatment

Transparency

- Transparency about patient's data usage & its monetization

Nokia Data Marketplace references

Case: ensuring secure data exchange for European ports consortium



Marlin SCX aiming to transform maritime supply chain

- Simplify processes involving multi-parties
- Get integrated view of e2e shipping operations
- Reduce delays & costs

NDM to facilitate data exchange among shipping participants

- Publish data through APIs
- Transactions validated & automatically settled through smart contract
- Permission based real time access to end-to-end shipping data

Use case:
Port supply chain
automation



Value proposition

Transparency

- 100% secure and trusted data exchange

Reliability

- Up to 95% improvement in planning & predicting deliveries

Efficiency

- Up to 30% reduction in active port time & e2e business cycle time

Nokia Data Marketplace references

Case: enabling monetization of IoT (environmental) data

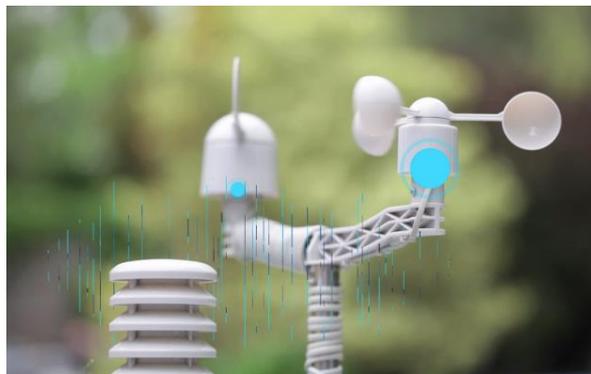
Tower company aiming to leverage IoT data

- Unlock monetization potential of environmental sensors' data
- Exploit IoT data to handle complex smart city ecosystem

Nokia Data Marketplace for IoT data exchange & monetization

- IoT data transaction in the ecosystem
- Secure exchange of diverse data from multiple systems and IoT-enabled infrastructure

Use cases:
IoT data monetization;
Smart city



Value proposition

Weather intelligence

- Real time & historical data to generate forecasts to customers

Ecosystem collaboration

- Onboarding & bringing together companies, cities, authorities, etc. for environmental research

Monetization

- Sell IoT data from sensors on the mobile towers

Nokia Data Marketplace references

Case: enabling predictive maintenance for airline consortium using federated AI/ML

Challenges faced by airlines consortium

- Lack of adequate data for AI predictive model
- Flight maintenance data across multiple airlines / locations / countries
- Difficult to move centrally due to data movement regulations and massive volume

Nokia Data Marketplace

- Enable federated (decentralized) learning through AI/ML orchestration
- No movement of data centrally, AI algorithms run simultaneously in decentralized data

Use cases:
Predictive maintenance
of aircrafts



Value proposition

Reduced TCO

Fast training of the predictive maintenance models for significant cost reduction

Increased revenue

AI models reduce unplanned downtime for more compact scheduling

Reduced investment

No storage needed to move data centrally

Key takeaways

Nokia Data Marketplace for driving digital transformation & new revenue streams

Bringing efficiency & new opportunities

- Blockchain for data security, traceability and integrity
- Smart contracts for monetization and settlement
- AI/ML federated processing without moving data

Innovative business model

- SaaS offering (subscription model) with revenue-sharing
- White-labeled for ecosystems

Proven across verticals

- Use-cases across Telco, Government, Energy, Transport, Healthcare, Sports..
- Digital transformation & data monetization as new revenue stream



NORWA