Nodle Network roadmap
Nodle Network
10-year roadmap
**Timeline**

The Nodle Network has a 4-phase journey toward full decentralization.

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Phase 2</th>
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<th>Phase 4</th>
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<td>2017-2022</td>
<td>2022-2025</td>
<td>2025-2028</td>
<td>2028→∞</td>
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- **Network launch**
- **Network growth**
- **Usage growth**
- **Network maturity**

- **Decentralized Nodle Chain**
- **Decentralized apps**
- **Decentralized oracle and governance**
- **Full decentralization with the DAO**

- **First release of SDK and Cash app**
- **New VM capabilities**
- **Developer ecosystem**
- **Fully open service marketplace**
Phase 1. 2017-2022
Network launch, with a centralized infrastructure

Phase 1 started the Nodle network, released the first versions of all components, and onboarded early adopters.

The focus of the first phase was to:

1. Launch the Nodle Network with its public blockchain.
2. Deliver a first iteration of the Nodle SDK.
3. Release the first version of the Nodle Cash App.
4. Onboard the first set of Nodle Network consumers that would start using the Nodle Network capabilities. In the first phase, many components are still fairly centralized.
Phase 1. 2017-2022
Network launch, with a centralized infrastructure

Nodle Chain launch
The Nodle chain migrated from the Stellar blockchain to the Substrate framework and relaunched in 2020. The native token, NODL, is used to incentivize the build-up of the network. The first version of the Chain explorer was released in 2021 and a Web wallet in Q1 2022.

Nodle Cash app release
The Nodle Cash app was first released in 2020. Its goal was to make the public aware of the Nodle Network and get early adopters to participate in its deployment.

Nodle SDK release
Working closely with mobile app partners, the Nodle team first released the Nodle SDK in 2020, embedding it with a select number of apps.

Nodle asset tracking service
A private version of the IoT asset tracking feature was released and made available to a select list of network consumers. Those first consumers of the Nodle Network have to go through Noodle Technologies Inc to communicate with their registered devices through the Nodle Network. They pay for the service in USD, and Noodle Technologies Inc uses the NODL token to interact with the Nodle Network.
Phase 2. 2022-2025

Network growth, with a few decentralized apps

Phase 2 is about growing the network, improving the alignment of all participants, and expanding the Nodle Network capabilities.

The Nodle Network is entering its second phase as of March 2022. The goal of this phase is to:

1. Grow the network.
2. Increase the security of the network.
3. Open its capabilities to third parties in a permissionless manner. During this transformative phase, a new white paper will be published, the NODL token will be listed on an exchange, a new rewards system will be put in place to improve the alignment of all participants, and staking will be enabled.
Phase 2. 2022-2025

Network growth, with a few decentralized apps

**Nodle Chain security**
To increase the security of the Nodle Network, the validator program is open to a select number of partners and the Nodle project participates in the Polkadot parachain auction with a crowdloan.

**Nodle Cash token listing**
During Phase 2, the NODL token should be listed in one or multiple centralized exchanges, which will allow consumers of the network to procure the services it provides.

**Nodle Cash app**
The Nodle Cash app will be used to increase network coverage by incentivizing users to move to areas that have no coverage or are poorly covered. This will be done through gamification and an improved rewards system. The Nodle Cash app will be regularly updated and useful features added for the end user, increasing transparency and updating how users earn NODL tokens.
Phase 2. 2022-2025
Network growth, with a few decentralized apps

Nodle Cash app
The Nodle Cash app will become the testbed for the new functionalities of the network. This could include geo-located NFTs and smart missions.

Nodle SDK VM
A Nodle Virtual Machine (NVM) will be implemented on the Nodle SDK to add extra functionalities at the edge of the network. With the release of the VM, the Nodle Network capabilities will go beyond IoT applications.

Decentralized asset tracking
The asset tracking capability will be rewritten as a smart contract running on top of the Nodle chain, and will use the capabilities of the Nodle SDK VM.

New rewards formula
A new rewards formula will be defined to increase the alignment of all participants. In particular, the Nodes will be incentivized to increase the coverage of the network, and its availability.
Phase 2. 2022-2025

Network growth, with a few decentralized apps

Permissionless access
Consumers will no longer have to go through Noodle Technologies in order to use the Nodle Network, and will have access to the services it provides directly via the native NODL token.

Nodle Governance and Research Forum
Using a platform such as Discourse, a public forum will be deployed to allow Nodle community members of various expertise levels to propose changes to the protocol and discuss new decisions to be taken by the Nodle DAO once it is deployed. A process to escalate posts and suggestions to full-on proposals to be ratified by the DAO and later executed will be put in place.

Decentralized governance model
A council will be elected by the token holders to start operating the Nodle Chain at the core of the Nodle Network. Most repositories will be open sourced to promote collaborations and let people debate on or propose new features and implementations. Toward the end of the second phase, the council will propose a roadmap toward more decentralization. One of the goals of the council will be to delegate governance to all token holders, for instance, in the form of a liquid democracy system. Over time the council will become obsolete and disappear.
Phase 3. 2025-2028

Usage growth, the Nodle DAO, and a fully decentralized architecture

Phase 3 is about growing the usage of the network, decentralization of core components such as the rewards oracle, and open sourcing the key components of the Nodle Network.

Phase 3 will start after Phase 2 is complete. The goal of this phase is to start the decentralization process of the network by opening up the rewards system, open sourcing the key components, and establishing the Nodle DAO.
Phase 3. 2025-2028

Usage growth, the Nodle DAO, and a fully decentralized architecture

Permissionless Nodle SDK “Go console”
A dashboard allowing SDK partners to onboard, download the SDK, without any interaction with the team behind Nodle.

Decentralized Rewards contract
The rewards to the Nodle nodes will be calculated on-chain and validated in a decentralized manner. The rewards oracle will disappear and be replaced by a smart contract.

Establish the Nodle DAO
In consultation with the Nodle community, a Nodle DAO will be formed to prepare for the full decentralization of the network and the transfer of the ownership and governance to the DAO.

Open sourcing the network
In this phase, all the components of the network, including the SDK and the rewards contract, will be published and made open source.

Nodle SDK Dashboard
A public dashboard allowing SDK partners to onboard themselves without any interaction with the team behind Nodle, will be released. The code will be made open source so that any developer can create new versions or entirely new products inspired by the original SDK dashboard.

Developer ecosystem
The development of a strong developer ecosystem will start during Phase 3.
Phase 4. 2028→∞

Network maturity, DAO ownership and governance

Phase 4 is about “handing over the keys” of the Nodle Network to the community.

Phase 4 will begin after Phase 3 is complete and the Nodle DAO has been established. Then, the management of the network will be turned over to the community via the Nodle DAO.

The roadmap and all future developments of the Nodle Network will be handled by the community through the DAO. This phase will coincide with the second part of the S-curve token issuance.

At some point in time, revenues from network services will surpass those from the rewards formula.
# Glossary

<table>
<thead>
<tr>
<th>NAME</th>
<th>DEFINITIONS</th>
<th>DETAILS</th>
<th>PROBABILITY TO GO TO MARKET</th>
<th>PROBABILITY TO GO TO MARKET ONTIME</th>
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<tbody>
<tr>
<td>Execution Committed</td>
<td>The feature has been approved to be developed</td>
<td>The exec team has approved resources to complete the development of the feature</td>
<td>High</td>
<td>High</td>
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<tr>
<td>Concept Committed</td>
<td>The feature has completed a business case, or a study and most product and market requirements have been defined</td>
<td>The exec team has approved resources to complete the product and market requirements, functional specifications, development and implementation plan, and perform any technical feasibility studies</td>
<td>Medium-High</td>
<td>Medium</td>
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<tr>
<td>On the Radar</td>
<td>The feature has been identified as a potential future feature</td>
<td>A management team has prioritized the feature and decided we will spend additional resources to determine if it is technically feasible and fits within the product strategy</td>
<td>Medium</td>
<td>Medium</td>
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## Executive summary

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<td><strong>Cash app</strong></td>
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<td>Pending rewards</td>
<td>Earnings simulator</td>
<td>Improved transfer experience</td>
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<td>Simplified onboarding</td>
<td>PIN code protection</td>
<td>New rewards formula</td>
<td>Referrals</td>
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<td>Learning center</td>
<td>Enhanced stats</td>
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<td>Web3 experience</td>
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<td>SDK dashboard for network contributors</td>
<td>Network state explorer</td>
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<td>Rewards split between partners and their users</td>
<td>Nodle Virtual Machine (NVM)</td>
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<td><strong>IoT platform</strong></td>
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<td><strong>Nodle Chain</strong></td>
<td>Parachain migration</td>
<td>Web wallet</td>
<td>Ledger integration</td>
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<td>NODL collator staking</td>
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<td>NODL council</td>
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Roadmap 2022
Nodle Cash app
Simplified onboarding

Execution Committed • Q2 2022

The new, simplified onboarding will allow users to explore and use the app as soon as possible without having to go through optional steps, enabling users to quickly understand what the Nodle Cash app is and how the Nodle Network is used.
The new Learning Center will contain educational videos explaining how the app works, how users can increase earnings, and more.
Enhanced stats

Execution Committed • Q3 2022

The statistics available in the app will be updated to show rewards-related data and app performance. Users will be able to check rewards received, Bluetooth devices detected, and other data that will help them understand and analyze their rewards.
The earnings simulator will allow users to estimate how much they can earn and adjust the NODL token price to see how it influences the value of their balance and average weekly earnings.
PIN code protection

👌 Execution Committed • Q3 2022

A PIN code and biometric protection will be added to prevent non-authorized access to the NODL wallet, which is a part of the Nodle Cash app. The verification will be required to transfer NODL tokens out of the wallet.
New rewards formula

✔ Execution Committed • Q3 2022

The rewards formula will be updated to align with the mission of the network.

The update will focus on an incentive mechanism to maximize coverage, availability, and the network’s utility.

To help users understand the calculation logic and ways to earn more, they will be provided with a breakdown for every reward.
Referrals

Execution Committed • Q4 2022

Users will earn rewards after friends they've invited start using the Nodle Cash app and mine a certain amount of NODL tokens.
Improved transfer UX

Execution Committed • Q4 2022

Users will be introduced to simpler ways to specify a transfer receiver beyond entering a public key, scanning a QR-code of the transfer receiver, finding nearby devices, or picking up the public key from one of the latest transfers.
Web3 experiences

On the Radar • Q4 2022

Additional ways to interact with the app and earn more NODL tokens will be introduced. Users will be able to select activities and tasks that best fit their lifestyle.
Roadmap 2022
Nodle Network and edge nodes
SDK dashboard for network partners

Execution committed • Q2 2022

Network contributors are mostly application developers who integrate the Nodle SDK in order to receive NODL tokens. The first version of the Nodle Go dashboard will allow them to register their apps, help them integrate the SDK, and provide them with analytics about the deployment of the SDK on their apps, as well as let them visualize their earnings in NODL tokens.
Network state explorer

Executing committed • Q4 2022

With the new design of rewards for network contributors, the network will be able to publicly expose a map of network coverage and capabilities without jeopardizing the privacy of contributors. This map will in turn allow new network contributors to estimate their rewards depending on their own coverage and users and thereby create a balance for how the network is distributed globally.
Rewards split between partners and users

✅ Concept committed • Q4 2022

App partners would like to be able to split the NODL earnings between themselves and their users. Instead of receiving all the earnings, they will be able to configure the exact share their users receive on a Nodle wallet embedded within their apps or games.
Nodle Virtual Machine (NVM)

Executing committed • Q4 2022

The first version of the Nodle SDK allows it to listen for the presence of BLE devices around the smartphone. By September 2022, the SDK will embed the NVM, a Virtual Machine enabling the SDK to execute tiny short-lived programs at the edge of the network in a Turing-complete language. For IoT, this enables new use cases beyond just tracking. Instead of simply reading data from a BLE advertisement payload, the network will perform authenticated communication by connecting and running complex exchanges with BLE devices at the edge. Beyond IoT, this will turn the Nodle Network into a swarm computing network.
Roadmap 2022
Nodle IoT platform
Asset tracking service

Execution committed • Q2 2022

Asset tracking is the first IoT service operating on top of the Nodle Network. It is a managed service that will be migrated to a dAPP running on the Nodle VM in the future. It has been in closed beta with select organizations since the beginning of 2022. Organizations can use the Go dashboard to provision smart devices to the platform and get positions of the devices as detected by the Nodle Network through API, maps and statistics displayed in the Go dashboard.
Parachain migration

- Execution completed · Q2 2022

Nodle recently acquired a two-year lease for its parachain on the Polkadot relay chain. The Nodle team transitioned to the parachain and issued the promised rewards to supporters.
Web Wallet v1

Executing committed • Q2 2022

The Web Wallet will allow token holders to interact with the Nodle Chain and its associated services with an easy to use interface.

It is aimed at being a replacement to Polkadot JS for non-technical users. The initial release of the Web Wallet will feature an easy way to connect with Talisman, or a Ledger, and allow users to view their balance and recent transactions as well as claim any granted coins. Future versions will add more features such as staking support.
NODL collator staking

Executing committed • Q3 2022

In order to allow third parties to further secure and decentralize the Nodle Parachain, a “staking” feature that will allow people to set up their own collators and produce blocks will be rolled out. Collators will have to conform to the DPOS system in order to be selected, and will be compensated in the form of Nodle Cash tokens coming from both transaction and protocol fees.
Nodle Council

 Executing committed • Q3 2022

In order to begin to decentralize the means of governance on the Nodle Parachain, a limited on-chain council structure will be introduced. Council members will be elected for a fixed term by the token holders. The number of council members will be limited. The council will take over parachain operations and eventually present a roadmap towards full decentralization.
Ledger integration

Executing committed · Expected Q4 2022

In order to provide token holders with a safer way to store their coins, a Ledger Hardware Wallet integration will be published on the Ledger store. A production release depends solely on Ledger itself, which choses which integration to review every month.
Thank you