Product Specification

Product Name: Indoor Nodle Miner
Model Name: DSGW-210N

Revision History

Specification		Sect.	Update Description	By
Rev	**Date**			
1.0	2020-09-07		New version release	
2.0	2021-12-16		Adding the new Type	
3.0	2021-12-23		Adding the new Type	
4.0	2021-01-14		Adding the Model List	

Approvals

Organization	Name	Title	Date

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1. Introduction

1.1 Purpose& Description

Earn Nodle coin by mining Nodle cash and building coverage for The Nodle Network using the **DSGW-210N* (Supporting BLE and LTE Cat 4)** Indoor Nodle Miner.

Nodle – built on a Bluetooth Low Energy (BLE) network – is a connectivity provider for the Internet of Things (IoT). The network helps companies and cities collect data from their devices, sensors, and tags.

Table 1-1 Model List Table shows the available model for customers to choose from.

Feature Model	Wi-Fi 2.4G/5G	Bluetooth5.2	Zigbee 3.0	Z-Wave	Lora	LTE CatM1	LTE Cat1	Li battery	Matter & Thread	LTE Cat 4	GPS
DSGW-210N	●	●								●	

Table 1-1 Model List Table

1.2 Node Technology

Nodle seeks to enable blockchain applications to directly interact with hardware at the physical layer of the blockchain stack.
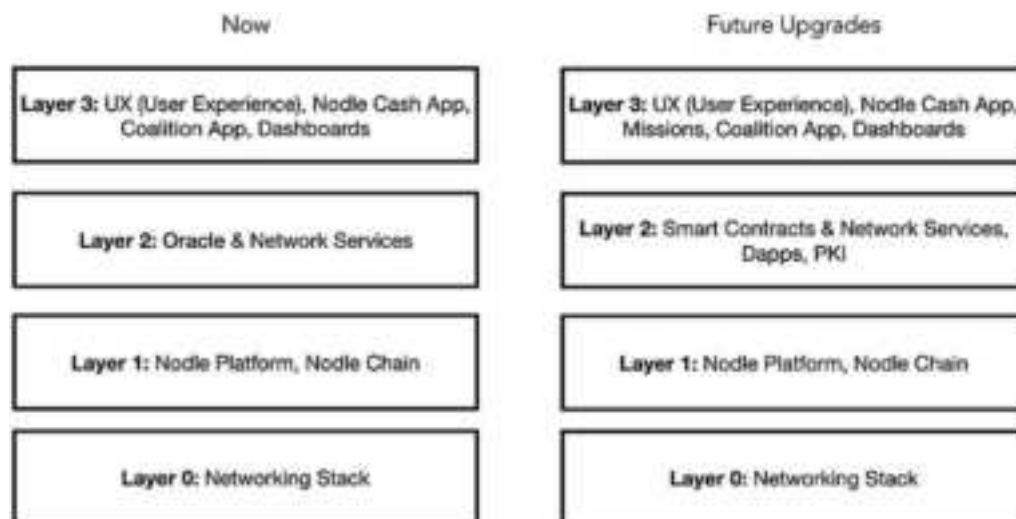
Layer 0 | Hardware & Networking: Nodle interfaces directly with the physical hardware of an IoT device, and in some cases provides reference firmware running on the IoT device. This gives the Network unprecedented access to the physical hardware (for example, sensors, memory, and compute functions). Network Connectivity is created by a crowdsourced network of millions of smartphones, which is made available to IoT devices through the Nodle Infrastructure. This layer represents significant computer and wireless networking resources.

Layer 1 | Consensus & Compute: The Nodle Blockchain provides the underlying layer and security for governance, reward allocation, payment, and root of trust, (in the case of the Nodle PKI [Public Key Infrastructure]). Permissions and controls are put in place to protect parties in the network from potentially malicious smart contracts. This layer interfaces with Nodle systems to coordinate the routing of data and reward allocation. Securing this layer are blockchain validator nodes, which today are run by Nodle, and will soon be opened up to third parties.
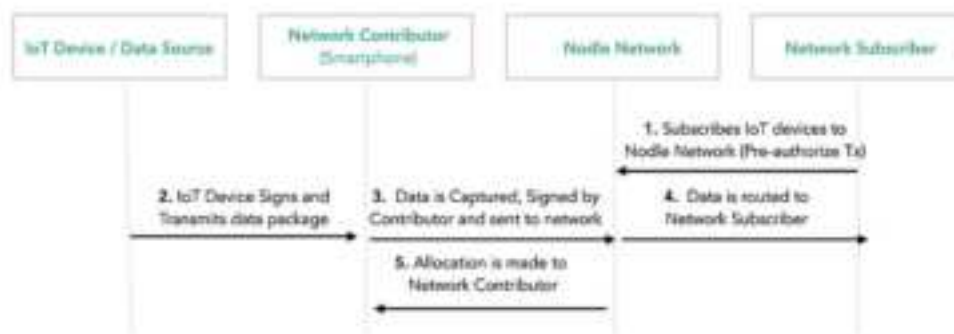
Layer 2 | Smart Contracts: Running atop the Nodle Chain are applications that may have access to lower levels of

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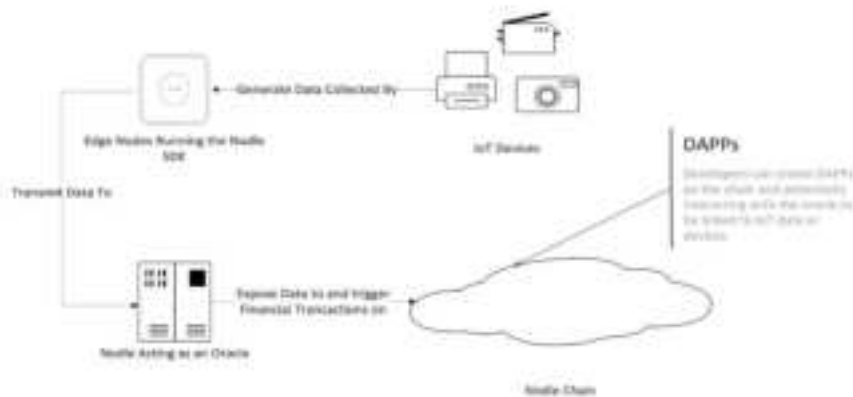
the networking stack. For example, sensors on an IoT device, radios on a smartphone, or billing services. Smart Contract support is expected to be deployed in the coming months. They enable what we call Smart Missions Smart Mission is an arbitrary task that a subset of Edge Nodes has been commissioned to perform; this could be upgrading the firmware of an IoT device by staying next to it for two minutes, locating a lost device in an uncovered area, and much more. Smart Missions can be created with their logic code and reward mechanisms, as chosen by the developers. The current layer 2 applications like the Smart Asset API are operated using oracles; oracles are in charge of exposing IoT data to the chain's components and smart contracts. Under the hood, we use a feature from Parity Substrate called off-chain workers.

Layer 3 | Client & User Interface: The Final layer represents services that are opened up through web interfaces, APIs, and on-chain services. This represents core products built by Nodle; for example, the Nodle Cash App, Smart Asset APIs, the Coalition Enterprise Suite, and the internal dashboard. Smart Contract support will enable third parties to build new applications atop the Nodle ecosystem. Today, these services are a combination of on-chain and off-chain infrastructure.

1.3 Proof of Connectivity

Today, Nodle Cash rewards are triggered by Data Oracles using statistical methods (See Plans for Further Decentralization). As IoT devices begin signing and encrypting their data, The Nodle Network can support a fully decentralized reward system.

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1.4 Block diagram

2. Mechanical Requirement

2.1 Drawings

3 Electrical Requirements

Category	Specifications
CPU	Quad-core Cortex-A53
RAM	2GB
ROM	eMMC 8GB
System	Android
Power Supply Port	5V/3A
Reset button	Reset the gateway into factory mode
Network Interface	RJ45
Operating Temperature	-10℃~35℃

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FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

To comply with RF exposure requirements, a minimum separation distance of 30 cm must be maintained between the user's body and the device, including the antenna.