

Duality Blockchain Solutions

110 East Houston Street, 7th floor,
San Antonio, Texas 78205
<https://duality.solutions>



The Company

Duality focuses on software sales, products, services, research and development that pertain to healthcare enterprise data management, identity, and storage. Our primary software suite includes pShare, pConsult, NoID, and the BDAP Software Development Kit (SDK).

Software Suite

BDAP Software Development Kit (SDK)

Utilizing our proprietary BDAP and DHT infrastructure, Duality will be launching its first publicly available SDK in Q4 2019. The SDK will drive further innovation, interest, and use to the Dynamic blockchain by allowing individuals to build their own applications using BDAP and the DHT infrastructure of the Dynamic blockchain. All applications built with this SDK will require DYN to function and therefore will drive use case demand (buy support).

pShare™

pShare (Private Share) hosted on the Dynamic blockchain with a highly-developed UI, allows users to privately share files with friends, family, and colleagues without concerns about a third party shadowing users' information. pShare protects privacy with a peer-to-peer network linked to a users' BDAP account and uses VGP end-to-end encryption technology to give users exclusive authority over who they share content with.

pShare is easy to use, integrates directly with your file explorer, and compatible with most operating systems. pShare lets you organize your network into public and private groups, with public groups stored on the blockchain and private groups encrypted on the DHT. The Dynamic blockchain acts as a network-auditing mechanism and adds an extra layer of access security. pShare connects computers behind NATs and firewalls using the same VoIP technology as large communications vendors.

pShare is slated to reach minimum viable product status by August 2019. We are currently in beta testing and the download can be found here:
<https://duality.solutions/pshare>

Screenshots of the user interface can be found here:
<https://medium.com/@duality.chain/pshare-upclose-d2589c454309>

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pConsult™

pConsult will be developed to facilitate remote doctor-to-patient telehealth services with private live video and audio, secure messaging, and document exchange. The software will utilize BDAP for account registration, linking accounts, professional certificates, consultant discovery, and ratings. To protect end-user privacy, pConsult uses hashed (de-identified) demographics and biometric technology to enroll participants and authenticate user sessions. VGP is utilized to provide live encrypted communication channels allowing doctors and patients to connect over a secure video feed utilizing the Dynamic blockchain and DHT.

NoID™

Duality's flagship solution, NoID, is identification and data access software combined with biometric hardware that allows for simple user enrollment, data management, and access. Enrollment can occur at any location which chooses to implement the NoID protocol (hospitals, laboratories, pharmacies, schools, etc). In 2016, NoID won the CHIME National Patient ID Challenge concept blitz round and in 2017, in collaboration with HarmoniQ Health Systems, won a finalist innovator award.

Anticipated software release dates are as follows:

| Software Release Dates* | | |
|-------------------------|------|---------|
| Software Suite | Year | Quarter |
| pShare | 2019 | Q3 |
| BDAP SDK | 2019 | Q4 |
| pConsult | 2020 | Q4 |
| NoID | 2021 | Q4 |

*All of these dates are subject to change. Duality is seeking to obtain various grants and venture capital funding which will speed up its to market efforts for all of its software suites.

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The Ecosystem

The Dynamic (DYN) token is required to run Duality's applications and is the vehicle that facilitates data transfer to and from our distributed systems. The anticipated monthly number of DYN tokens required for each software subscription is shown below:

| Software Package | Number of Monthly Dynamic |
|--------------------------------|---------------------------|
| pShare - Tier 1 | 1.15 |
| pShare - Tier 2 | 2.20 |
| pShare - Tier 3 | 24.56 |
| pConsult - Tier 1 | 3.25 |
| pConsult - Tier 2 | 32.83 |
| pConsult - Tier 3 | 105.90 |
| noID Provider SSO - Tier 1 | 10.53 |
| noID Provider SSO - Tier 2 | 31.00 |
| noID Provider SSO - Tier 3 | 409.40 |
| noID Patient Identity - Tier 1 | 5.50 |
| noID Patient Identity - Tier 2 | 57.75 |
| noID Patient Identity - Tier 3 | 3230.23 |
| noID HIE - Tier 1 | 116.50 |
| noID HIE - Tier 2 | 488.20 |
| noID HIE - Tier 3 | 5116.25 |

Duality will use a portion of its software subscription revenue and place buy orders on the marketplace to purchase the required DYN based on the number of software subscribers by package and tier. This supply of DYN will be converted to colored tokens and be burned out of circulating supply as the software utilizes it.

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The estimated number of subscribers by software type and tier is shown below:

| | Number of Subscriptions by Software Package and Tier | | | | |
|--------------------------------|--|------------|------------|------------|------------|
| | 12/31/2020 | 12/31/2021 | 12/31/2022 | 12/31/2023 | 12/31/2024 |
| pShare - Free | 1 | 8 | 92 | 1,074 | 12,500 |
| pShare - Tier 1 | 4 | 48 | 554 | 6,446 | 75,000 |
| pShare - Tier 2 | 3 | 40 | 462 | 5,372 | 62,500 |
| pShare - Tier 3 | 5 | 63 | 739 | 8,595 | 100,000 |
| Total | 14 | 159 | 1,847 | 21,488 | 250,000 |
| pConsult - Tier 1 | 0 | 6 | 90 | 1,421 | 22,500 |
| pConsult - Tier 2 | 0 | 5 | 75 | 1,185 | 18,750 |
| pConsult - Tier 3 | 0 | 9 | 135 | 2,132 | 33,750 |
| Total | 0 | 19 | 299 | 4,738 | 75,000 |
| noID Provider SSO - Tier 1 | 0 | 0 | 2 | 6 | 25 |
| noID Provider SSO - Tier 2 | 0 | 2 | 6 | 25 | 100 |
| noID Provider SSO - Tier 3 | 0 | 2 | 8 | 31 | 125 |
| Total | 0 | 4 | 15 | 62 | 250 |
| noID Patient Identity - Tier 1 | 0 | 0 | 2 | 6 | 25 |
| noID Patient Identity - Tier 2 | 0 | 2 | 6 | 25 | 100 |
| noID Patient Identity - Tier 3 | 0 | 2 | 8 | 31 | 125 |
| Total | 0 | 4 | 15 | 62 | 250 |
| noID HIE - Tier 1 | 0 | 0 | 0 | 1 | 1 |
| noID HIE - Tier 2 | 0 | 1 | 2 | 3 | 4 |
| noID HIE - Tier 3 | 0 | 2 | 2 | 3 | 5 |
| Total | 0 | 3 | 5 | 7 | 10 |
| | | | | | |
| Grand Total | 14 | 188 | 2,182 | 26,356 | 325,510 |

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The monthly DYN required to service these software subscribers is shown below:

| | Monthly DYN Requirement to Service Software | | | | |
|--------------------------------|---|------------|------------|------------|------------|
| | 12/31/2020 | 12/31/2021 | 12/31/2022 | 12/31/2023 | 12/31/2024 |
| pShare - Free | 0 | 2 | 23 | 270 | 3,138 |
| pShare - Tier 1 | 5 | 55 | 637 | 7,413 | 86,250 |
| pShare - Tier 2 | 8 | 87 | 1,016 | 11,818 | 137,500 |
| pShare - Tier 3 | 134 | 1,559 | 18,144 | 211,095 | 2,456,000 |
| Total | 146 | 1,704 | 19,820 | 230,596 | 2,682,888 |
| pConsult - Tier 1 | 0 | 18 | 292 | 4,620 | 73,125 |
| pConsult - Tier 2 | 0 | 155 | 2,457 | 38,890 | 615,562 |
| pConsult - Tier 3 | 0 | 901 | 14,266 | 225,804 | 3,574,125 |
| Total | 0 | 1,075 | 17,015 | 269,313 | 4,262,812 |
| noID Provider SSO - Tier 1 | 0 | 4 | 16 | 65 | 263 |
| noID Provider SSO - Tier 2 | 0 | 47 | 190 | 767 | 3,100 |
| noID Provider SSO - Tier 3 | 0 | 775 | 3,133 | 12,661 | 51,175 |
| Total | 0 | 826 | 3,339 | 13,494 | 54,538 |
| noID Patient Identity - Tier 1 | 0 | 2 | 8 | 34 | 138 |
| noID Patient Identity - Tier 2 | 0 | 87 | 354 | 1,429 | 5,775 |
| noID Patient Identity - Tier 3 | 0 | 6,115 | 24,717 | 99,901 | 403,779 |
| Total | 0 | 6,205 | 25,079 | 101,364 | 409,691 |
| noID HIE - Tier 1 | 0 | 37 | 54 | 80 | 117 |
| noID HIE - Tier 2 | 0 | 624 | 913 | 1,335 | 1,953 |
| noID HIE - Tier 3 | 0 | 8,176 | 11,959 | 17,490 | 25,581 |
| Total | 0 | 8,838 | 12,926 | 18,905 | 27,651 |
| | | | | | |
| Grand Total | 146 | 18,647 | 78,178 | 633,672 | 7,437,580 |

The DYN required to run the software will be purchased from the market on a monthly basis at a maximum price of \$3.50* per token (*subject to change). Duality will

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facilitate the purchase of DYN and the subsequent loading of the transaction credits (colored DYN) to the user accounts so that they can operate their blockchain-based software. If there isn't enough supply of tokens on the marketplace at any given time, Duality will mint colored DYN tokens and load user accounts with this supply. All DYN utilized in the software will be converted to colored tokens and burned out of circulating supply.

Setting a guaranteed maximum price of \$3.50* (*subject to change) ensures cost control for Duality's "raw material" for the software and also provides the required incentive needed to support Duality's decentralized Dynode operators and miners. As noted below, a Dynode holder will receive a net dollar on dollar reward of approximately 14%* (*subject to change) in exchange for lending their computing power to the blockchain.

| Dynode Analysis (Annual) | |
|---|------------|
| Dynode Set-Up Cost (1,000 DYN @ \$3.50) | \$3,500.00 |
| Dynode Reward @ 15% (paid in DYN) | 150 |
| Anticipated DYN Price (upper max) | \$3.50 |
| Rewards in (\$) | \$525.00 |
| Cost to Run a Dynode in (\$) | \$36.00 |
| Net Rewards in (\$) | \$489.00 |
| Reward (%) (\$ on (\$) | 13.97% |

Timing

Duality will monitor its software user base and when it determines there are enough subscribers we will deploy this purchase model. There will be ongoing communication with all stakeholders as this process nears reality.

General Disclaimer

This model is subject to change, tweaks, and refinement as we partner with organizations for funding, software development, and deployment. This information is only meant to provide an idea of where the DYN token's utility can go from here and as Duality sees it today. As all good businesses do, we reserve the right to adapt to any market, legal, and regulatory framework that may arise. This document is not intended to provide current or forward-looking investment advice. Duality Blockchain Solutions is a software company and its tokens are intended to be used for its software and not for speculative purposes.