The Investment Thesis for NEAR Protocol

By Ozymandius, Founder of 4NTS Guild

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Introduction

This is a macro-level overview for prospective crypto investors and entrepreneurs interested in better understanding the position of NEAR protocol in the larger crypto- and emerging technology marketplace. For an introduction to NEAR, readers can review *The Long Term Value Proposition for NEAR Protocol*. In this short paper, a thesis is put forward for NEAR protocol that explains the position of the protocol in the larger crypto - and Web3 space. As an argument, we argue that NEAR is extremely well positioned to sustainably grow in the coming decade, based upon its technical design, developer incentive structure, focus on usability, and global business development approach.

Before we explain our reasons for this thesis, we start by explaining the context of NEAR in the larger Web3 space. This context centers upon an impending crypto bull run, growth of peer-to-contract applications (encompassing decentralized finance, but also much more), as well as the larger infrastructure inversion that Web3 presents and the development opportunities contained therein.

Argument 1: We Are On The Precipice of a Web3 Revolution

Define *Web3: The standardization of value built into as a protocol layer of the internet. Peer-to-Peer and Peer-to-Contract network infrastructure from which data and value is handled in a decentralized, public, and permissionless manner using token-based incentive models.*

Overview: After three previous market cycles, the cryptocurrency space is positioned for a fourth cycle at a time when *smart money, institutional acceptance,* and *private interest* in Web3

is on the rise. Similar to previous technology revolutions, this fourth cycle marks the beginning of a fundamental *infrastructure inversion* for many of our digital and physical systems. As a result of this inversion, a host of new opportunities and business models will be born in the coming *decade plus*. NEAR protocol is the platform that is optimally positioned for handling these opportunities.

Premise 1: Demand Factors

- **Smart Money Before the Masses:** After 2 years in a bear market, interest in cryptocurrency and digital tokens is on the rise once again, signalling for many the start of the next bull market. Notably, at the current stage of this cycle, it is predominantly wealthy zip codes in Silicon Valley and New York indicating the entrance of smart money - interested in the value proposition of the underlying technology, and hedging against a weakening dollar. Bitcoin as a whole remains at well below 1/10th of the market cap of gold.

In context, the majority of mainstream finance across the global economy, remains on the sidelines for not only Bitcoin but all of crypto. The trickle-down logic is as follows: If Bitcoin is validated as a serious investment by mainstream investors, private companies, and institutions, interest in other cryptocurrencies such as Ethereum will follow closely. Demand for the more encompassing value proposition of Layer 1 blockchain protocols arrives: As Bitcoin rises to prominence, other cryptocurrencies as a whole rise as well.

- **Institutional Acceptance of Both Crypto and Blockchain:** News about Microstrategy, to Grayscale, to Paypal, to even AirBnB and Venmo are clear indicators of the integration of cryptocurrency payment systems with legacy internet payment systems. Institutional adoption validates the usability of cryptographic tokens - an early stage signal of what the future will look like. This signal is further complemented by numerous central banks planning to launch digital currencies in the coming years. In short, institutional acceptance of cryptocurrencies and the underlying distributed ledger technology (be it private or public), validates the long-term interest in token-based economies and the innovative benefits of blockchain.

- **The Maturation of Web3:** Beyond demand factors coming from traditional finance and institutions, demand for crypto-based products, marketplaces and verticals continues to grow in its own right inside of Web3 itself: The future of blockchain-based gaming, non-fungible tokens, decentralized protocols for music and art, as well as DeFi continue to attract capital and interest. As many protocols have launched, future value in the solutions built on top is only just starting to be created. Demand for these solutions is only starting to develop as they become tangible and usable.

Premise 2: Infrastructure Inversion

Define *Infrastructure Inversion - Change that occurs when new infrastructure is laid on top of old, pre-existing infrastructure - and how that creates a conflict*

Overview: Serial entrepreneurs and technology investors look beyond the financial market value of cryptocurrency, and focus on the underlying value proposition inherent to its core technology: blockchain. Blockchain has the capacity to re-create digital systems such that self-executing software can operate without human interference in an open and permissionless manner. These recreated digital systems that are self-executing have the potential to not only handle data as currently used on the internet, but also data from other emerging technologies such as sensors, satellites, drones, and autonomous and artificially-intelligent machines. Inverting and digitizing much of our digital or institutional infrastructure thus has the opportunity to offer more inclusive and open systems that in turn can scale with emerging technologies to create new and previously untapped value.

- **Mike Novogratz on Ethereum:** Mike Novogratz is a legendary crypto investor who has been actively involved in both Bitcoin and Ethereum from their early days. His understanding of the coming infrastructure inversion is explained when he discusses the real future of value in crypto over the next five years: *"In a lot of ways the real revolution, which is coming in five or ten years, is when we rebuild the whole architecture of the financial system. That is the Ethereum revolution, or maybe it's the Ethereum plus whatever - some of these level two's or someone else a part of the level one." (21:42)*

- **Avichal Garg on Peer-to-Contract Systems:** Avichal Garg is a serial entrepreneur and Managing Partner at Electric Capital. He has argued for a thesis of programmable money since 2016 and has equally insightful points on the nature of the coming infrastructure inversion. Speaking on Building The Open Web Podcast, he explains the context of this inversion:

"For the first time what we have is a potentially digitally native store of value where the bits in the computer are the money, which is very different from the existing financial system where you do have a ledger and the bank has an entry that says you have such and such money. But it is really just an IOU from the bank - if you go to the bank they will give you some cash. It's not that the bits in the computer are the money. So if you take that one step further and say, if the bits in the computer are the money, why is that interesting? Well it is interesting because now what that means is that computers can own money. Computers and machines and software can take custody of money. And so for the first time, a human can pay a machine without another human in the loop. Or a machine can pay another machine without a human even being involved. And if you play that forward, one step forward, you say, well, 'why is that interesting?' Well it is interesting because there is a set of stuff that computers are better than humans at - and strictly speaking there is only one thing that computers are better than humans at - and that is that computers are better than humans at deterministically executing some set of instructions on some future time horizon. That is literally what computer code is: Do this and the same thing happens every time. If you think about the world, a lot of the world is 'here is a huge pile of money' and 'here are a bunch of rules about that money' - who has access to that money, and when that money can move and on some future time horizon I need you to execute some set of instructions: That's a will, that's a trust, that's an escrow, that's a mortgage, that's a heloc, that's an options contract, it's a securities contract, like literally a hundred trillion dollars of the world is 'here is a pile of money and here is a bunch of rules around that money and how that money can move around.' So now what you have is an infrastructure where money is digital, computers can take ownership of money, and since computers are strictly better at executing instructions, it is such a perfect match for this hundred trillion dollar slice of the world that has previously been untouched because software couldn't actually solve those problems natively that we think over the next 20 to 30 years this programmable money stack

is just going to eat up that 100 trillion dollars of the world. It feels to us a lot like the early 1990s…" (14:10)

- **Danny Zuckerman On the Limits of What Can Be Built:** One final, and important note on the nature of a comprehensive digital infrastructure inversion is the new opportunities created therein that might have been previously unimaginable or impractical. Danny Zuckerman, Co-Founder of 3Box explains this when he says:

*"Basically anything that you can think of is buildable now. There are types of experiences that were just completely impossible a few years ago, but with the speed of what people are building in the blockchain ecosystem and in the web3 ecosystem more broadly, it's basically possible to piece together any set of experience that you have seen online into a much more interoperable holistic experience, and whether that's through some of the app building platforms that are gaining steam...through assets and NFTs on blockchains, through composable data, you can start to design things that are maybe not complete yet, but show the future, and I think are going to come very fast. So if you are curious about it, just start building and if you can think about it, start poking around in fun ways to build it." (**35:53**)*

Premise 3: History of Technology Diffusion

Define *Technology Diffusion - The process by which innovations are adopted by a population.*

Overview: The history of innovation and technological development contains many lessons for understanding current innovations launching today. What technologies from the *steam engine,* to the *automobile,* to the original *internet* demonstrate is that: (1) New technologies require *time* to diffuse into the mainstream; (2) They often must be refined and simplified for mass appeal; And (3) the speed with which they can diffuse is often correlated with how easy it is for someone to access and engage with the technology itself.

- **Deployment Time and Productivity Gains:** Economic History has demonstrated at length that innovation and deployment of new technologies takes time to diffuse and become valued within a society or context. For the Steam Engine,"social savings" due

to steam engine improvements remained stagnant at 0.3% per year between 1830 and 1850. It took more than 50 years for widespread adoption to occur across the most important commercial facets of society. The incremental adoption indicates that any technology needs to be able to 'fit' into the world in which it has been created - and this process takes considerable amounts of time.

- **Usability and Mass Appeal:** In the case of the automobile, it is evident that *usability* and *mass-appeal* were necessary for the technology to start its diffusion process into the world. While the automobile was credited as being invented in 1886 by Carl Benz, most economic historians consider the creation of the Ford Motor Company in 1904 as the first major development in the commercialization of the technology. Notably, Ford built his company to "To create a reliable, low-cost, easy-to-operate and easier-to-fix device for the masses." By 1927, Ford had sold more than 15 million cars.

- **The Acceleration of Technological Development:** On the brink of what has been coined a '4th Industrial Revolution', it is important to understand that technological innovation is developing and diffusing more rapidly than at any other time in history. Open source, crypto-economic protocols are prime candidates for facilitating this diffusion as they very often operate as a base layer for more complex and integrated solutions or applications (say, for instance, with the Internet of Things, AI, or automated robotics). Blockchain-based cloud platforms are very much the general purpose technology that has the capacity to be applied widely and in tandem with other technologies as this fourth industrial revolution accelerates.

*"We are so early in the development of this, that just because the first 30 or 50 million did a thing, doesn't necessarily mean that the next two billion people will do that thing. And history of technology tells us that over and over again...**I tend to think as an investor, probabilistically speaking, the term profiles are such that it makes sense to have a lot of exposure to things that are running at those same objectives, but are not Bitcoin or Ethereum**. So in the case of DeFi, yes, I think it is entirely possible that we don't know what the killer Apps are yet, or that the killer apps have scaling challenges when it comes to Ethereum, and actually some other platform is*

able to bootstrap enough network security that they can build those sorts of applications, and because it is so much easier to get money in the door that the liquidity feedback loop ends up being faster and faster on a new platform. And ends up eclipsing Ethereum in the next three to five years." - Avichal Garg, Building the Open Web Podcast Episode 7.

Argument 2: NEAR Protocol is Uniquely Positioned To Lead This Revolution

***Define** NEAR Protocol - A dynamically sharded layer one blockchain-based cloud platform, built with usability and scalability in mind.*

Overview: NEAR is a dynamically sharded blockchain-based cloud platform that is designed to scale according to demand, with low transaction costs, and built-in incentives for developers. NEAR emphasizes usability first, in both its account model design and in offering developers the ability to build dApps on NEAR in both AssemblyScript and Rust. As such NEAR has been built to be easily understood by existing Web2 developers, as well as users familiar with existing internet permission models.

In addition, NEAR Protocol has been launched with an accompanying Business Engine: The Open Web Collective Incubator, and a *global* development focus. In the context of Argument 1, NEAR approaches Web3 solutions with a win-win mentality, the capacity to easily scale, and with unrivalled incentive models to developers looking to build on top of it. NEAR in this context, is positioned to power the Open Web over the next 10 years and beyond as a truly permissionless cloud platform.

Premise 1: Protocol Design

***Overview**:* NEAR is designed such that it can scale, at a low cost, and with low risk for users and developers. Most notably, the protocol has been built and launched in the full spirit of decentralization, to such an extent that a fully interoperable and permissionless bridge between NEAR and ETH is on the brink of public launch in the coming months. This is the first major

consideration to keep in mind when evaluating the long-term potential of any blockchain protocol: How does the technical design facilitate durability and growth over time?

- **Dynamic Sharding:** NEAR Protocol handles transaction loads via asynchronous sharding on its network. The nightshade consensus mechanism is designed to scale a single blockchain known as the *Mainchain* through consecutively adding shards in proportion to increased transaction loads. This model is *one* approach proposed to creating a robust and scalable blockchain infrastructure, that is capable of handling a high throughput of transactions at a low cost (less than 1 cent per transaction). The value in the context of making an argument for the viability of NEAR Protocol, is that in itself, it has been designed to scale - the technical design of the protocol is such that it is capable of handling a global capacity load on par with existing centralized financial infrastructure: NEAR has been built to last.

- **Low Transaction Fees / No Overpaying:** Transaction fees on NEAR are priced in a predictable manner, that does not inflate with increased usage. The protocol has also been designed such that it is not possible to overpay a gas fee: anything paid beyond the required amount is returned to the account of the payer. Such a model for transaction fees makes NEAR optimal for usage and attractive to developers. This is especially the case for the nascent yet fast growing NFT market as well as other core Web3 verticals including gaming and DeFi.

- **NEAR - ETH Decentralized Interoperability:** The NEAR team has built and is in the process of finalizing the launch of a fully decentralized NEAR - ETH Bridge from which tokens between platforms can be independently moved by developers, users, and projects. This bridge is significant insofar as it: 1) Provides a pathway for projects (NFT's, DeFi, etc.) to migrate value from Ethereum onto NEAR in the event of unreasonable gas fees on the former and 2) Pioneers one of the industry's first fully decentralized bridges from which interoperability between platforms can be established and scaled into the future.

Premise 2: Usability and Incentives

***Overview**:* Making it easy for existing developers to build on NEAR has been a major consideration of the NEAR team in their design of the protocol. As they explain it, NEAR puts usability first. This is not only for developers, but also for users. Similar to parallel enhancements that made the internet more consumer-friendly, NEAR brings a number of first-time enhancements to Web3 that make it more developer and user friendly.

- **Account Models and Function-Call Limited Permissions:** NEAR puts usability first. This is manifested in a number of ways, but the most notable pertain to the account model structure as well as built-in advanced permissions that allow users to call contracts directly. Unlike other blockchain protocols, accounts on NEAR are denominated in names as opposed to hashes of alphanumeric characters. Sub-accounts can be created by master accounts, while standard Single Sign-On login options make handling an account more natural to existing Web2 users. Function-Call Limited Permissions allow developers to call contracts on sub-accounts, such that gas can be automatically pre-paid from dApps ahead of time. Technicalities aside, these features illustrate the thoughtful design that has gone into making NEAR protocol Usabile for Web2 developers as well as the future mass users interested in different solutions built on top of the protocol.

- **Developers Take 30% From Their Contracts:** The NEAR website explains this feature most clearly: "Contracts are rewarded with 30% of the gas fees they generate, giving developers an immediate business model for apps and infrastructure." This is a unique feature from all other existing layer 1 protocols: Developers, Entrepreneurs, and new projects that migrate to NEAR have a direct incentive to build on the protocol - built into the core design - due to the fact that they will be rewarded 30% of the fees that cross their contracts.

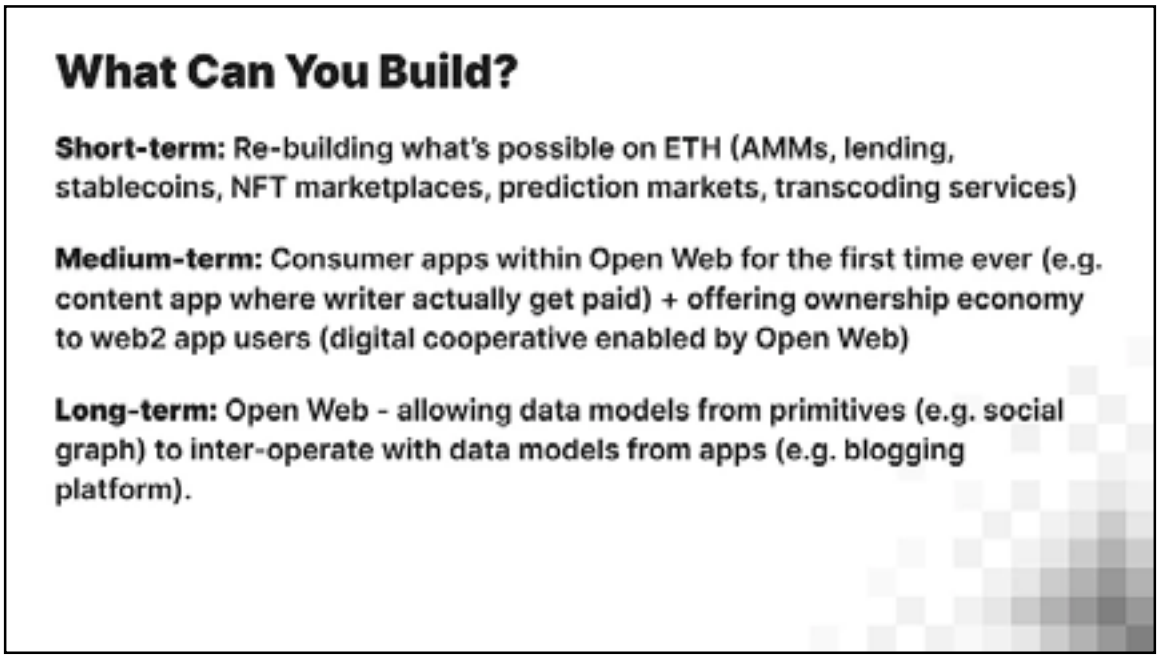
- **Program in Rust and AssemblyScript:** Making it easy to build blockchain-dApps is a key emphasis of NEAR Protocol. Developers from Web2 can quickly and easily code in Rust or AssemblyScript as opposed to a separate blockchain-specific language such as Solidity. In context of the macro transition discussed above, this is another key

factor that makes NEAR *usable* for developers looking to easily transition from Web2 to Web3.

Premise 3: Business Engine

Overview: NEAR compliments its robust technical design and usability-first features with a strong focus on the *global business landscape* for Web3 applications. The Open Web Collective - an early stage incubator for future blockchain solutions - combined with the global focus of the NEAR team, notably in Asia as well as Silicon Valley, is a strong basis for the NEAR Business Engine.

- **The Open Web Collective:** The Open Web Collective is a blockchain-agnostic incubator for early stage crypto projects. It is operated by core NEAR team members and takes applications on a rolling basis. In context of the development of the protocol, the Web Collective is an extremely unique business engine: It provides NEAR (as well as the general blockchain space) with a means by which new projects and ideas can be grown to scale from ideation with input along the way from experienced entrepreneurs in the space. The value here is that NEAR is able to reliably facilitate new projects, games, and startups in the coming future as the protocol and its community continues to grow. As the Web3 space matures, the OWC allows NEAR to harvest the next major trend.



- **Global Focus:** Finally, what is often forgotten in Crypto is the global focus that any serious project must embrace. As Joyce Yang of Global Coin Research explains on Building the Open Web Podcast #23, "*I think one of the reasons I invested in NEAR was that I knew you guys were globally minded in the first place. Illia spoke Chinese, and I see him in conferences there all of the time. To see a founder engaged with the global community regardless of geography is something worth learning from.*" The NEAR team spans across the globe, while the NEAR community - including Guilds - continue to expand on all continents. Such a focus means that NEAR is well positioned and actively engaging the solutions of tomorrow and the next ten years irrespective of geographical location.

Argument Conclusion

Many may be inclined to respond to this argument by focusing on the merits of other Layer 1 Protocols in comparison to NEAR. As stated above, NEAR is a collaborator and not a competitor of such protocols. What differentiates NEAR as a protocol is its capacity to facilitate existing Web2 adoption into a future of decentralization and self-executing software in an equitable, familiar, and mutually incentivized manner. The fundamental premise of 4NTS is that NEAR is Building the Open Web - and as such, is optimally positioned to lead the impending digital revolution and its accompanying infrastructure inversion. This premise is based on both technical and historical factors.

The context of this revolution is clear: Cryptocurrencies and open-source blockchain protocols are entering a new market cycle of interest and speculation. NEAR Protocol is uniquely positioned to handle such interest for both users and consumers, and with a global focus. As a young protocol that is capable of scaling according to demand, there is almost no better time to become a community member, stake tokens, build dApps, and generally start participating in an open and inclusive Ecosystem building the internet of value.

For comments and questions, please reach out to m@4nts.com