

Lightpaper

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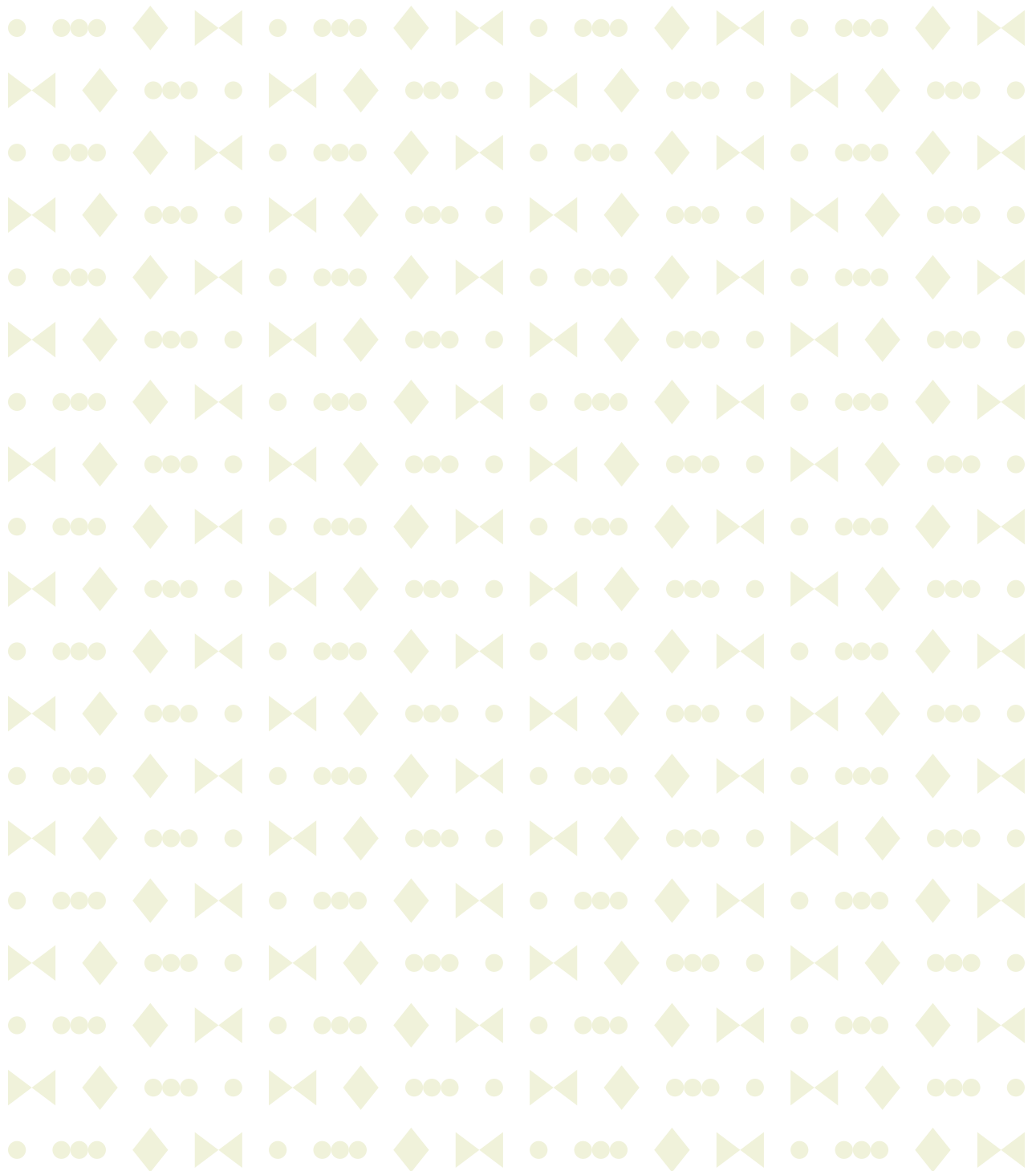


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Introduction

The dawn of open-source and decentralized technologies has inspired the creation of systems that give individuals more power to exchange assets and open up new business opportunities while reducing their reliance on centralized authorities. However, even though the pace of technological progress has been swift, the adoption of decentralized solutions still awaits implementation in the real economy on a large scale.

Polkadot, one of the leading players in the Web3 ecosystem, is set to transform the way businesses, individuals, and organizations manage assets and data. Still, several factors hinder the broader adoption of Web3 solutions:

- Developers need to overcome a high entry barrier, by mastering complex technical requirements.
- Investment in Web3 development requires significant resources, from setting up a capable team, and navigating lengthy processes, to delivering tried and tested results.
- The price-performance ratio for Web3 solutions is often seen as unfavorable, though this hardly matches the underlying reality. Many businesses and users remain unconvinced, finding the employment of blockchain technology in the real economy a risky prospect.
- Most Web3 products lack price stability and predictability, SLAs, guarantees, support, and other common features of reliable Web2 solutions.
- A multitude of competing technologies makes it difficult to find the appropriate long-term solution.
- Many service providers require potential users to first understand the provider's specific tokenomics, and integrating multiple Web3 technologies could drastically complicate the management of utilized tokens.

While each parachain is best at solving isolated use cases, Apillon focuses on connecting and curating different parachains, protocols, or pallets, putting them into the right context, which can be easily adopted by developers to build tangible products in Web3.

Apillon's unified points of access deliver Polkadot parachain functionalities to developers simply through APIs, so they can create a working Web3-based product from day one while mitigating or avoiding the issues mentioned above.

Simplification further applies to pricing, as the platform's NCTR token substitutes all the underlying payment requirements with a unified payment system. Payment plans in NCTR or fiat money (EUR, USD) deliver price stability and predictability, ideal for enterprises and frequent users.

Building with Apillon does not require prior knowledge of blockchain technology and allows users to surpass the hassle of lengthy testing and auditing. A streamlined product development process reduces the amount of required resources and shortens the get-to-market timeline.

Apillon brings the power of distributed technologies to web developers and opens the floodgate to their widespread adoption. It democratizes the usability of advanced technologies and helps Web3 services reach deeper and wider.

Challenges of Building in Web3

Developers and businesses find Web3 intimidating for various reasons. For one, it takes a serious skill set to enter the space and successfully build products harnessing technologies for decentralized management. But also, the marketing narrative around Web3 has unintentionally turned it into a seemingly private club of only the heavily publicized projects.

In reality, the barrier to entry could and should be much lower. Much like how traditional managed service providers (think, AWS) save the average web developer much time and stress, Web3 developers should also be given an optimized way of building products, allowing them to focus more on the functionality of the end result and spend less energy understanding every nook and cranny of the technology that sustains them.

This specifically applies to the key player in the Web3 world, Polkadot. In its architectural essence, the Polkadot ecosystem is very particular.

“Polkadot is a sharded blockchain, meaning it connects several chains together in a single network, allowing them to process transactions in parallel and exchange data between chains with security guarantees. Thanks to Polkadot’s unique heterogeneous sharding model, each chain in the network can be optimized for a specific use case rather than being forced to adapt to a one-size-fits-all model.”

– An Introduction to Polkadot

For an insider, this heterogeneity provides great opportunities for building use-case-oriented solutions. But looking from the outside, it raises a need for a unified gateway to access all those parachains and the whole spectrum of individual and unique features in the Polkadot and Kusama ecosystems.

- Polkadot parachains introduce a great variety of use cases and usability, but also present a high barrier to building new dapps from scratch.
- The uniqueness of Polkadot parachains is great for solving specific problems, but this also makes them function as separate entities with very specific set-ups and requirements.

- Existing Web3 projects are typically focused on solving a singular issue, but very few have shown the capability to plug into multiple parachains at once, thereby utilizing multiple features. This also means they have narrowed their own room for growth, essentially painting themselves into a corner.

Apillon is a unified Web3 development platform that addresses each of these issues. Primarily, it binds Polkadot parachains together and provides developers with easy access to their unique features via dedicated APIs. Developers can build Web3 solutions for business, individuals, or P2P use without the need to deep-dive into each parachain in terms of technological prerequisites and specifics, consequently saving time, effort, and invested resources. Plus, existing Web3 projects can be upgraded easily by adding more parachains and new features, thus covering more use cases and expanding their growth potential.

Given the early stage of the blockchain ecosystem and the infancy of Web3, it is only to be expected that developers will have to face keeping up with a long trajectory of changes, security tweaks, and functionality updates, in order to keep their Web3 projects alive. These costs are potentially even higher than initial development. For these reasons, a development platform that integrates automatic updates makes even more sense.

Apillon, the Web3 Development Platform

Aligned with the core features of the Polkadot ecosystem, the Apillon platform provides Web3 builders with:

- **Access to multiple parachains, pallets, and smart contracts.** With each service optimized for a specific use case, developers can tap into more possibilities for innovation and specialization for their projects.
- **Scalability.** Harnessing the Polkadot infrastructure, multiple transactions can be processed in parallel, removing the bottlenecks of earlier networks, and allowing the developers to scale their products to meet growing market demand.
- **Upgradeability.** Forkless upgrades to Polkadot parachains ensure that developers can create projects, which will remain agile, adaptable, and evolve in pace with technology, while reducing the risk of unnecessary hard forks, typically a barrier to entry for many.
- **Transparent governance.** The governance ability of NCTR token holders allows developers and the community to propose upgrades to the platform, thus contributing to the perfecting of its offering, which further boosts adoption among Web3 builders.
- **Cross-chain composability.** Harnessing Polkadot's Cross-Chain Messaging (XCM) system, developers can communicate, exchange value, and share functionality between chains, but also interact with other important decentralized protocols and external networks like Cosmos and Ethereum, further expanding the growth potential of their products.

Connectivity to an array of parachains delivers great adaptability to users' niche projects. However, it can also lead to highly complex asset management. To surpass the need to handle multiple parachain-native assets simultaneously just to sustain the employed services, Apillon introduces a unified pricing method that further simplifies the user experience and ensures payment plan stability.

How Does Apillon Work?

The Apillon platform abstracts the technological complexity behind the Polkadot network and its parachains into a suite of development tools. It takes into account the standard ways developers build things, allowing them to upgrade to Web3 easily.

Apillon gathers and delivers Web3 functionalities powered by Polkadot parachains to developers through straightforward API access, ample SDKs, and complete documentation for each service.

Its easy access and interoperability give builders an opportunity to combine use cases and integrate them seamlessly into conglomerates of distributed services, serving their audiences in a more seamless way than they could with niche products.

APIs to Polkadot parachains

Apillon APIs are easily integrated into any development framework and introduce a new way of Web3 development that significantly simplifies the go-to-market evolution.

Initially, the Apillon platform will incorporate APIs to:

- Moonbeam
- KILT
- Crust
- Phala

In the future, the platform will be upgraded by adding more APIs as new parachains earn their slot.

SDKs

Easing the integration of the Apillon platform and its APIs, ample SDKs enable faster and more streamlined utilization of Polkadot/Kusama parachains from the first click onwards.

Documentation

Guiding developers through the individual modules and dapp development process, Apillon documentation helps avoid the occurrence of bugs, mitigates operational issues, and creates working products with a lower risk of error and less need for auditing.

Monitoring

With a real-time overview of back-end performance, developers gain valuable insights into the functioning of their Web3 applications and attached services, allowing them to improve on lagging features or tweak the product for better performance.

Analytics

To help advance the adoption of Web3 products, Apillon's Analytics delivers clear insight into UI and transaction data, allowing developers to understand how their products are used, their best-performing features, and areas that need improvement.

Services

Apillon APIs connect to linked parachain services, opening up instant access to designated Polkadot/Kusama use cases.

Data Integrity

Apillon's core module on Moonbeam

The data integrity module secures enterprise data, prevents unauthorized edits, and ensures trusted verification for all stakeholders.

Digital Identity

Powered by KILT

KILT is an open-source fat blockchain protocol for issuing claim-based verifiable, revocable, and anonymous credentials for Web3.

Data Storage

Powered by Crust

Crust implements the incentive layer protocol for decentralized storage, and is adaptable to multiple storage layer protocols such as IPFS.

Cloud Computing

Powered by Phala

The Phala network represents a trustless computation platform that enables massive cloud processing without sacrificing data confidentiality.

DeFi

Powered by Acala

Acala is a layer-1 DeFi smart contract network that is scalable, Ethereum-compatible, and powers the aUSD ecosystem.

Other services

More services will be introduced on the Apillon platform with the launch of new parachains.

Potential to Foster Web3 Adoption

Due to the technological complexity of blockchain technology, individual stacks, and unique sets of requirements on each network and protocol, developing new solutions on Web3 is no walk in the park.

To build a Web3 product from scratch, a developer needs to do (at least) the following:

- Have a solid understanding of and experience in developing with blockchain technology
- Select a network and/or parachain on which to build their product
- Research protocols for the chosen network and/or parachain
- Buy and use the network or parachain's native token to pay for its services
- Learn how to integrate and combine those services
- Build, implement, shift, test; see how users respond, edit and adapt; rinse and repeat
- Maintain their Web3 product, and make updates for protocol changes

With Apillon, the Web3 development process is radically different.

Apillon lowers the entry barrier to Web3 and provides developers with new, simplified means to create working products on Polkadot parachains simply by using legacy systems and existing programming knowledge. A developer developing a Web3 app using the Apillon platform can simply attach the needed service, call a function, and code it to suit the needs of the product.

With its complete set of tools, the Apillon platform aims to support thousands of developers, regardless of their background, to onboard the Web3 train, and to add a significant share in boosting the adoption of individual Polkadot/Kusama parachains and distributed technologies in the real economy.

With an estimated 87 billion US dollars Web3 and blockchain market growth by 2030, the world economy will be heavily impacted by the expansion of new technologies. But, perhaps more importantly, businesses and brands will face a lack of resources, particularly a skilled enough workforce that would keep pace with the technological development and create enough next-generation products to satisfy market demand.

In just a few years since the inception of Web3, the community of developers has grown exponentially, though still not fast enough. Today, there are 27 million web developers, but just 20,000 Web3 developers.

With Apillon, developers gain a functional toolset to create Web3 products and upgrade their skillset. This increases their relevance in an ever-demanding market and boosts the value of the services they provide.

The NCTR Token

The NCTR token (pronounced “nectar”, food of butterflies) is Apillon’s native utility token and serves primarily to sustain Apillon functionalities when users interact with linked Polkadot parachains and transact with their protocols.

NCTR is designed to be a multi-purpose and widely used asset, covering a range of utility cases for platform users and community members.

Primarily, the NCTR token holds an important role in the governance of the platform. It allows holders to submit proposals for new platform services, vote on them, and co-govern the direction of development for the Apillon platform so that it can best respond to users' needs and enhance their Web3 building experience. Through incentives and grants, it also provides an opportunity for the developers to vote on their favorite projects, boost innovation, and safeguard community standards.

Moreover, NCTR represents a uniform means of value exchange in the process of building Web3 projects on the Apillon platform, as it replaces the need to interact with individual tokens of utilized parachains. For every value-based action on Apillon, the platform manages each parachain feature using its native token on the back end. This way, developers only deal with NCTR and don’t have to worry about acquiring or exchanging other tokens. The Apillon business model also supports payments in fiat, namely in EUR and USD, further boosting adoption among crypto-newbies. The platform converts fiat to NCTR to unlock the platform’s functionalities.

NCTR further incentivizes token staking via service pricing discounts. These are offered to NCTR token holders who participate in the governance process by staking tokens and help shape the future of the platform’s offering. Users staking NCTR tokens also get access to premium support, team consulting, and other perks that are to be determined as the NCTR tokenomics model evolves.

Roadmap

Phase 1

September 1 - November 30, 2022

- Back-end architecture & microservices
- Infrastructure
- Identity, logging, monitoring
- KILT Service prototype (no UI level)
- DID Vault prototype (no UI level)
- Public Web3 UX Framework

Phase 2

December 1, 2022 - February 28, 2023

- Developers console
- KILT Service launched & in production
- DID Vault launched & in production
- Full front-end done & in production
- Crust Service prototype (no UI level)

Phase 3

March 1 - May 31, 2023

- NCTR token issuance
- Staking and Governance in production
- Moonbeam Service (Data Integrity) in production
- First projects on the Apillon platform
- Freemium model in production

Building the Web3

Apillon grew out of Kalmia, one of the leading IT service providers and companies developing turn-key software products in Slovenia. Sourcing from rich experience in delivering outstanding digitization solutions, the blockchain department of Kalmia has initially set its focus on enterprise data integrity, a use case that grew into the first main business proposal by Authtrail, Apillon's predecessor.

Later, based on client feedback and increasing market awareness, the team recognized that the data integrity use case is but one of the modules that can help enterprises and developers enter the Web3 space. But also, more importantly, that there is heavy demand for more turn-key Web3-based solutions.

Mastering private, public and hybrid blockchain setups, the technology department at Apillon has set out to redefine the way a blockchain-backed future is built. Joined by seasoned professionals with business development, marketing, and sales backgrounds, Apillon is on an ambitious path to make Web3 more approachable and transformative for the real economy.

Learn more about the project and join the Apillon community.

E-mail: info@apillon.io

Website: apillon.io

Wiki: <https://wiki.apillon.io/>

Telegram: <https://t.me/Apillon>

GitHub: <https://github.com/Apillon-web3>

LinkedIn: <https://www.linkedin.com/company/apillon>

Twitter: <https://twitter.com/Apillon>

Reddit: <https://www.reddit.com/r/Apillon/>

Discord: <https://discord.gg/yX3gTw36C4>

Medium: <https://medium.com/apillon>