
Bringing the Next Cohort of Financial Institutions On-Chain with Avalanche

Overview

Costly intermediation fees, long settlement times, and closed, siloed, opaque networks are ubiquitous in the traditional financial system. Over the last decade, financial institutions have increasingly turned to blockchain technology to combat these long-standing issues.

Challenge

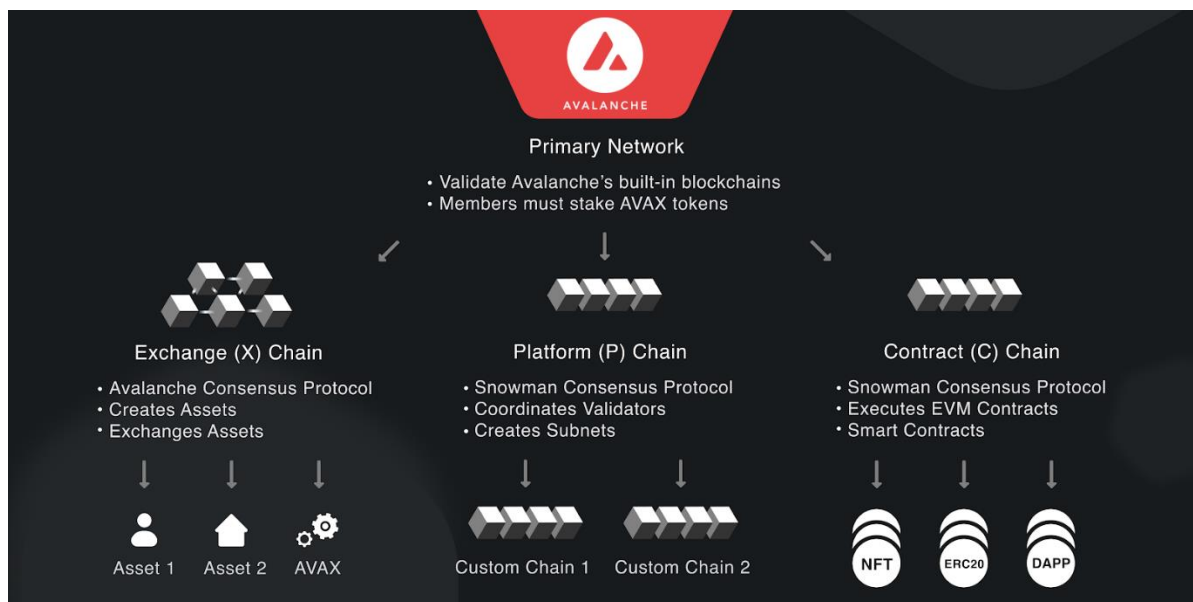
Regulatory and other hurdles have constrained broader institutional blockchain adoption to “enterprise chains” and permissioned dApps, which inherently reintroduce a lot of the issues blockchains were meant to address as liquidity silos are created and composability and interoperability are axed.

Opportunity

[Ava Labs](#) recently launched [Evergreen Subnets](#), which leverage [Avalanche’s](#) Subnet architecture and give institutions the advantages of both public and private blockchains in one place. Evergreen marks a suite of blockchain deployments and tooling that allows institutions to spin up custom blockchains with the features they need while maintaining connectivity to other networks, use cases, and institutions. And the excitement is palpable: since its April launch, Evergreen has quickly come to host asset managers with a cumulative \$3 trillion under management, a notable blue-chip trading firm, and a project that already services billions of dollars in real-world tokenized assets.

A Primer on Subnets

Before delving deeper into Evergreen Subnets, it’s first worth understanding Avalanche’s Subnet architecture at a high-level.



Source: [Avalanche Docs](#)

Avalanche initially came onto the scene in late 2020 with its Contract (C)-Chain, a high-throughput, EVM-compatible smart contract platform. But the long-term plan for network scalability has always centered around Subnetworks (Subnets), which enable projects to build applications and use cases within their own custom, sovereign blockchain environment networks (Subnets) -- all administered by the primary network's Platform (P) Chain. The three overarching benefits of Subnets is that they isolate performance and enable customization, but importantly allow for native message passing and interoperability.

Evergreen Subnets

Evergreen is Ava Labs' productization of Subnet technology specifically for financial institutions. With Evergreen, financial institutions can easily and quickly spin up Subnets with the features they need, including:

User and Validator Permissioning

One of the biggest impediments to institutional blockchain adoption thus far has been around the Know Your Customer (KYC), Know Your Business (KYB), and Anti-Money Laundering (AML) regulations that require financial institutions to identify their counterparties. Subnets can bring KYC down to the chain level, so once users are verified and onboarded, they can freely operate and move assets among the applications within a particular Subnet or a variety of Subnets.

There's also permissioning at the validator level. This allows institutions to maintain complete control over transactions and settlement on their Subnets while complying with regulations around infrastructure and data hosting (e.g., geofencing, hardware, etc.).

Data Encryption and Privacy

In a similar vein, the public nature of blockchain transactions is often problematic for financial institutions, both from a regulatory and from a business model (e.g., proprietary trading strategies) standpoint. Subnets, however, can be built with network privacy intact.

Gas and Staking Tokens

Projects can also initialize their own native gas token. This accommodates financial institutions on both ends of the spectrum: those who are waiting for regulatory clarity and don't want to hold value-bearing tokens and those who have created their own tokens (traditional financial institutions actually have a long history of creating their own coins, see: the active [JPM Coin](#) and the shuttered [CitiCoin](#)).

Beyond this simple, almost plug-and-play blockchain customization, another advantage Subnets have over traditional enterprise chains is interoperability. Thanks to [Avalanche Warp Messaging](#) (AWM), a Subnet will be able to communicate natively with other Subnets. This enables the flow of data and assets without projects having to stand up their own bridges or rely on exploit-prone third-party bridges, all-the-while still allowing Subnet creators to control the Subnets they accept messages from (i.e., other compliant or relevant Subnets).

Evergreen Subnets offer a true step-function jump in utility. Easy blockchain customization (i.e., not having to create features from scratch), the benefits associated with public blockchain infrastructure and open-source development and the resources and services provided by Ava Labs all ease burdens on R&D and make it so institutions don't have to reinvent the wheel and instead can focus on building enterprise grade applications and upgrading legacy infrastructure and workflows. Financial institutions also retain control and maintain the compliance they have with enterprise chains while also keeping the interoperability, composability and access to liquidity that make on-chain finance so compelling. With that said it's worth taking a look at the uptake so far.

Spruce

In mid-April, Ava Labs announced the launch of Evergreen Subnet, Spruce. The first thing to note is the initial cohort, which consists of four financial institutions that collectively hold almost \$3 trillion in assets under management (AUM).

Two large firms involved in Spruce are US-based global investment managers [T. Rowe Price](#) and [Wellington Management](#). Both firms are known for their active management styles and breadth in terms of clientele, asset class exposure and investment strategies. Even further along the active management spectrum is [Cumberland](#), a subsidiary of Chicago-based proprietary trading firm [DRW](#), which has been focused on trading and market making in the digital asset space since 2014. And finally, to round things out there's New York-based asset manager [WisdomTree](#), which specializes in passive management, specifically innovative exchange-traded funds (ETFs) that span various asset classes, including crypto.

At this point the Spruce Subnet is a testnet, allowing these institutions to measure the benefits of on-chain execution and settlement on blockchain rails without putting capital at risk (i.e., by using valueless tokens).

In terms of activity, the starting point on Spruce will be foreign exchange (FX) and interest-rate swap markets. Both of these markets are critical pillars of the global economy, trading trillions of dollars a day, but suffer from a host of inefficiencies. Bringing FX on-chain means instant, atomic settlement which helps solve the settlement and counterparty risk issues that are estimated to affect [1/3 of all FX transactions](#), in addition to reducing the risks of benchmark rigging and market manipulation. Since interest rate swaps are traded over-the-counter (OTC), they also stand to benefit from automation via smart contracts and transparency both in terms of pricing and execution.

Other Partnerships

In order to facilitate these trades and run some other ancillary processes, the Spruce Subnet boasts several third-party integrations. In terms of dApps, Spruce hosts an instance of [Aave](#), which already has institutional experience through its permissioned interface [Arc](#). Other applications on the immediate roadmap include interest rate swap protocol [Voltz](#) and Avalanche-native central limit order book (CLOB) [Dexalot](#).

In terms of processes, Ava Labs has looped in external parties for some infrastructure, namely onboarding and custody. Spruce onboarding is done by [Quadrata](#), a decentralized identity verification solution that whitelists parties and grants chain level access by issuing a non-transferable token ("Quadrata Passport"). These parties can then store, manage and transfer assets using the [Metamask's Institutional web3 wallet](#). Recently, leading institutional custody and management platform [Fireblocks](#) also announced support for Spruce, which means Fireblocks clients can custody Spruce Subnet tokens and interact with the Spruce subnet via the Fireblocks Console and API. Distributed multi-party computing (dMPC) technology [Qredo](#) also has access to Spruce.

Outlook

The Spruce testnet is just a starting point, which Ava Labs will use as an opportunity to field feedback, iterate on design/features, and eventually push out mainnet iterations. The opportunities for growth are clear both in terms of adding institutions and applications. The next markets in line are tokenized credit and equity, which includes issuance, trading and management. It'll be interesting to see how this unlocks new adoption and design spaces, as smaller deal sizes and investment minimums become economically viable and secondary markets become more liquid.

The IntainMARKETS Subnet

Spruce isn't the first Evergreen Subnet, however. Launched in February 2023, the IntainMARKETS Subnet launched, which houses a tokenized asset-backed security (ABS) administration platform and marketplace. Last year, the ABS market issued \$2 trillion in new securities, allowing institutions to efficiently transfer risk and deploy capital into otherwise unfeasible investments. However, processes around ABS issuance, trading and disbursements are relatively manual and outdated, relying on the piecing together of PDFs and Excel spreadsheets from various third-parties' internal systems.

The [IntainMARKETS](#) Subnet is working to streamline and modernize these processes, thereby improving experience, cost, efficiency, transparency and liquidity for all stakeholders. By leveraging an immutable, transparent ledger (i.e, the blockchain), there's now a single source of truth, easing burdens around reconciliation and audits. In terms of some other aspects, since the IntainMARKETS Subnet has been operational since January, its benefits are actually already quantified.

Smart contract automation reduces the cost of issuance by 50-100 bps. The streamlined workflow also translates to an 80% reduction in the time it takes to validate a loan pool, a 65% reduction in the time it takes to underwrite a deal, and a 90% reduction in the time it takes to complete post-closing administration. These efficiencies make \$10 million transactions viable, whereas traditional processes would require a floor of \$100 million to be feasible.

Not only does this mean that investors can access ABS that they couldn't in a traditional format, but they can also sift through the real-time health of underlying loans and improve liquidity with timely disbursements. Issuers also can launch smaller deals before waiting to hit certain notional thresholds.

While the IntainMARKETS Subnet just launched earlier this year, [Intain](#) itself is a veteran in the enterprise Blockchain space. [IntainADMIN](#), Intain's standalone administration platform, has already administered over \$6 billion in loans, and the firm already partners with two of the largest trust banks for securitizations in the United States ([WSFS Bank](#) and [UMB Bank](#)). With MARKETS, Intain used an Evergreen Subnet to create a platform that offers the complete, end-to-end ABS lifecycle and secondary market. Intain chose Avalanche's Subnet architecture in particular because of its feature-set around permissioning and compliance, gas token customization, and performance isolation.

Closing Thoughts

For the last decade, it has felt like the blockchain has always been on the verge of institutional adoption - finally bringing a deluge of assets and activity on-chain and dispensing with the world's analog financial rails. While decentralized finance (DeFi) has introduced several innovative primitives and revealed the potential of digitally-native assets, broad institutional adoption has been limited due to the regulatory constraints of global capital markets not to mention the other challenges associated with public blockchains, such as wildly fluctuating transaction fees and maximal extractable value.

Despite Evergreen's nascency, it's offering a truly novel solution and already has a budding ecosystem to validate its potential. While Ava Labs faces the challenge of educating the financial industry and servicing its needs, unlike other enterprise deployments, Evergreen Subnets benefit from network effects brought about by Avalanche Warp Messaging and public blockchain development. This should prove to be a significant tailwind, as the onboarding of assets and institutions can create a reflexive cycle of growth.

Learn more about Evergreen Subnets here: <https://www.avax.network/evergreen>

Disclaimer

This report was commissioned by Ava Labs. This research report is exactly that – a research report. It is not intended to serve as financial advice, nor should you blindly assume that any of the information is accurate without confirming through your own research. Bitcoin, cryptocurrencies, and other digital assets are incredibly risky and nothing in this report should be considered an endorsement to buy or sell any asset. Never invest more than you are willing to lose and understand the risk that you are taking. Do your own research. All information in this report is for educational purposes only and should not be the basis for any investment decisions that you make.