Aventus

Building Aventus's Future on Polkadot

By Aventus



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When Aventus Cloud went live in April 2026, it gave AvN a new responsibility: coordinating a community-operated compute network. More than 2,500 nodes are now live, with participation and rewards managed through our chain on Polkadot. An infrastructure decision we made several years ago is supporting a new part of our business.

Aventus has been building since 2017, beginning with blockchain technology for ticketing. When we migrated AvN to Polkadot in December 2023, we brought an operating network with two years of accumulated state. Parity's technical guidance and Centrifuge's migration experience helped shape our approach. We joined an ecosystem where other engineering teams had already worked through challenges relevant to our own.

Today, Cloud's work includes checking the weekly summaries of AvN's state that are anchored to Ethereum. Community members contribute computing resources to that verification work using ordinary computers. AvN coordinates their participation, maintaining the records and rules that allow the network to operate.

Those rules are specific to the service: who can register a node, how availability is recorded, how stake affects a node's weight and how rewards are allocated. We implement them in AvN's runtime, the code defining our chain's behaviour, using the Polkadot SDK. Under Polkadot's shared security model, its validators check AvN's blocks against those rules. We can develop the logic our services require while using the security of the wider network.

That combination has become more valuable as Aventus has expanded. Cloud introduces different requirements from the applications AvN originally supported. Having control over our chain's logic gives us room to accommodate those requirements within the infrastructure we already operate.

> The way we access Polkadot has evolved too. AvN now uses Agile Coretime, following the earlier parachain slot model. Validation capacity can be renewed in 28-day periods, allowing us to plan our use of Polkadot through shorter commitments. AvN continues to operate as a parachain, retaining its own rules and benefiting from shared security.

Cloud also gives people a practical route into the Polkadot ecosystem. Someone joining Aventus to operate a node becomes a participant in infrastructure coordinated by a Polkadot chain. As Cloud develops, we want to make that opportunity available to a wider community.

We are also following Polkadot's work on how people access and control digital services. Gavin Wood's recent emphasis on personal software is reflected in the direction of the new Polkadot App. In its current developer preview, signing keys remain on the user's phone while products can be accessed through desktop and web. It is a concrete approach to giving people control of their accounts across the software they use.

The privacy work is particularly relevant to our experience in ticketing and verification. Humanity, Polkadot's experimental proof-of-personhood system, uses separate aliases for different contexts. A service could recognise repeat participation without receiving a universal identifier linking that person's activity across applications. That could inform how communities handle access or limited allocations while asking people to disclose less about themselves.

These developments deserve careful attention from teams building services that depend on both trustworthy participation and the privacy of their users. We are interested in how they mature and what they could make possible alongside the infrastructure already in use.

We intend to keep developing AvN on Polkadot and expanding Aventus Cloud around it. Our contribution to the ecosystem will grow through the services we operate, the work our nodes perform and the people who join us to take part.