CROWN PAPER

8.0   Atomic

The Core Dev Team
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On Aug 01, 2017 the Crown team plans to enable features described bellow in testnet. On Sep 01, 2017 the team will release an update of the core network software which will turn on two new op_codes for applications to use in connecting with the network and encrypted messaging. With this release, the project takes another step toward becoming a distributed organization.

With the base finally set, the core team will introduce three proposals for the community to review and vote on:

1. Application Layer Development

   Using the affordances given by the new op_key and op_meta opcodes, we propose building a system in which Trons are able to acquire an API key by agreeing to a comply by the relevant laws where the tron is operated and also having the required collateral. This API key will allow the Tron to then register services with the Tron's Wallet address. Subscribers to a service would pay subscription fees for a service, and would receive a service token through the encrypted messaging capability on the platform. The user would then be able to use that token to log in to the service which they had subscribed to. Subscribers would access applications through a browser and URL.

2. Chronos: Timekeeping and Proof of Stake

   In order to increase the capacity of the network, better time granularity is required. We also believe that since traditional networks have different sorts of nodes and servers, it is important for cryptographic networks to evolve beyond a single server type. For both of these reason we propose a service node which provides timekeeping services to the Crown Network, and we are calling this Chronos. To incent the creation of these timekeeping service nodes, we will also introduce a staking algorithm, so that Chronos node operators will be able to stake between 100 to 500 CRW on each Chronos node. The goal is for the Chronos nodes to, like the Trons with their potential to enable an application economy, to also have their own self-sustaining business model which allows for income beyond the period of the block reward. Because the Chronos nodes will allow acceleration of the network, a portion of this should be able to come from the transaction fee – but we have also already been approached by other services who would be interested in subscribing to a timekeeping service – which makes sense – so the timekeeping service itself is expected to also be another application which can be subscribed to through the network. This would be an example of a "utility application" which all Trons would offer, and where most (90%+) of the revenues for the service would probably be passed directly to a pool to pay the Chronos nodes.

3. Consensus Mechanism:

> Chaositec doesn't want to talk about this yet, but... The combination of the consensus mechanism and the greater time granularity will allow the Crown Network to accelerate processing times and capacity once these updates are in place.

We are in the process of developing formal white papers to discuss the details behind each of these development proposals. As stated before – none of these features on its own is new. That's what's nice about the ideas. What's new is the combination and exactly how we will bring the different pieces together. The simplicity of what we envision is both its strength and weakness. Complexity is not secure – but simplicity in open source can be easily copied.

At this point we are far enough along that we do not believe there is any risk to starting to discuss the plan more openly. If someone else can build it faster from this point – it is our fault for dawdling.

We are calling this set of three different proposals Crown Atomic, because (a) if it works it will blow away the capabilities of other crypto projects by adding both an extensible compute layer and transaction capacity closer to the level of the Paypal network in the next update of the Crown Core scheduled for November 2017, (b) in a perfect world we would have perfect time granularity and transactions would be coming through one by one, an atomic transaction stream instead of blocks – but we know the world isn't perfect.

As stated before, the goal of the project are to do nothing less than providing a distributed and resilient foundation for business and modern life which is built around individuals and with the goal of maximizing their ability to act or human agency. Between the sincere technology vision and the constructive social goal – we think this is a project a lot of people might be interested in working with or being a part of. If you want to help out – feel free to join the Mattermost (mm.crwonlab.eu) and let us know how you want to get involved.