

Closing the Year with Elemental Chat on Holochain RSM

Leadership & Org Update #23



This past week has flown by as we have released Elemental Chat for Hosts first to QA, then to our Pre-Release Community testers. We have tested live with more than 50 nodes and we've seen hundreds of messages and dozens of channels. In just the past two days, we've run concurrent test sessions with 12 to 15 testers at a time.

Results are consistently showing:

- Messages that get sent are received.
- If both users are online when the message is sent, it can be received nearly instantaneously using signals.
- If a user is offline or if their browser is disconnected from their device when messages are sent, those are also received, but they take a slower route using Holochain gossip.
- Received messages get placed in the order that they were sent when gossip updates the list.
- As the data in the app grows, testers experience slower gossip and fewer instant messages.

During the past week, we've deployed several updates that have enhanced the experience for testers, the results of which provide feedback for improvements. For example, yesterday's session confirmed our assumptions about levels of gossip being higher when there is more data in the application and we then designed automations that demonstrated slower messages related predominantly to bandwidth limitations on a proxy server. We are also following up with possible optimisations on the Holochain gossip loops. This is exactly how testing should go, and feels really gratifying.

Elemental Chat on HoloPorts has shown P2P eventual consistency with the resiliency that allows for offline and online use of Holochain.

Despite all the testing with hundreds of nodes using the previous version of Holochain — this key characteristic of eventual consistency was never fully working, so to have this working now with Holochain RSM is a huge leap forward.

As we've shared with testers and stakeholders, the user-experience in Elemental Chat is not perfect. This test cycle is really about our infrastructure. It tests the unoptimised basic networking of Holochain RSM and it tests some of the Holo hosting infrastructure. The chat app was developed for this purpose and therefore has very few bells and whistles. The simplicity helps us assess the underlying layers of technology more easily.

After the week of testing we are extremely satisfied. We have found no blockers to our continued work on Holochain or on Holo. This is fantastic!

So what's next?

Looking Forward... and Moving Forward

The year has been shadowed by the ongoing pandemic and it simultaneously seemed to pass incredibly quickly and very slowly. We began in January with the delivery of HoloPorts, followed by significant testing of HoloFuel on the previous version of Holochain. There was a lot of learning and it provided the evidence that refactoring Holochain was the right choice. We scaled back the team and concentrated on rewriting Holochain such that it would deliver on its promise of being a flexible framework for P2P applications — one that would enable Holo to bridge distributed apps to regular web users.

To that end, we delivered Holochain RSM earlier this year. We further deployed Elemental Chat as a proof of concept testing app, one of many new apps now built on this new version Holochain. The ecosystem of Holochain app developers is quickly taking on Holochain RSM and their needs are spurring optimisations and usability improvements in Holochain every week. You can follow many of these details in the Dev Pulse.

Our next steps for Holo are clear. We are on track to open up Elemental Chat to all Hosts, and then shortly following that to make it a hosted application on the Holo platform, available to regular web users in Open Alpha. Although we had hoped to meet that milestone in 2020, we feel buoyed by the responses to the ongoing testing by our community of Pre-Release testers.

“Web 3.0 has landed with this PoC.”

— Test Participant

Our roadmap will essentially be our guide to Beta as we build out the platform applications of the Host Console and Publisher Portal along with the stand alone app HoloFuel. You can read the details about that path in our previous post. For the next few weeks, as our team members celebrate holidays and ring in the new year, we plan to be a little quiet. We will all be back in early '21 renewed with our commitment to make distributed, peer-to-peer computing accessible to everyone.

Happy Holidays and Happy New Year!

ABOUT HOLO

Holo is a distributed cloud hosting marketplace for peer-to-peer apps built on Holochain. We're helping to build a better Web.

Holo is to cloud hosting what Airbnb was to hotels—anyone can become a host by turning their computer into a source of revenue, getting paid in HoloFuel for hosting peer-to-peer applications to the legacy web. By hosting P2P apps, you support a web that empowers your peers and communities.

Holo