

Continuing the discussion from [A new experiment: Breaking The Blockchain Trilemma in preparation for the GCP](#).

THIRD MILESTONE REACHED!

TLDR - the blockchain trilemma has not been broken, BUT we've identified a path to do it, and we've brought a new star into the Arbitrum gaming constellation.

OK So - work is wrapping up on an intense, informative and rewarding experiment with the Thrive team.

For the sake of full transparency - we ran into some issues. Certain assumptions I made about core components were wrong, certain parameters were not reached.

But to quote Rocky - "It ain't about how hard you hit. It's about how hard you can get hit and keep moving forward. How much you can take and keep moving forward.

"

So with that said, let me run you through what happened in this experiment.

I'll start with what went wrong, how we pivoted, and finally, what went right.

What went wrong

To recap, our experiment involved using our software, HoloNET, to port a game project through to Holochain, instead of AWS.

After integrating Stellar Gate with HoloNET, we hit a block:

AWS has a feature called SignalR, a library for [ASP.NET](#) that enables real-time web functionality in applications, allowing server-side code to push content to connected clients instantly. In the context of AWS SignalR facilitates real-time communication in web applications hosted on AWS infrastructure.

Holochain also utilises Signals - but, due to the difference in Holochain's distributed architecture we found it is not yet sufficiently developed for real time web functionality. Consequently our 'experiment' phase of the grant produced a negative result.

How we pivoted

At this point, we asked ourselves three questions:

1 - What can we do NOW, given the existing restrictions?

2- What can we do NEXT, to remove the restrictions?

3- How can we ensure that no matter what, this experiment is a win for Arbitrum as a whole?

1 - What can we do NOW

We built a HoloNET API to load + save JSON data to Holochain, easily

github.com/holochain-open-dev/holochain-client-csharp

[Added new HoloNETAPI project abstracting away yet more hc complexity into a simple data, signals and validation API... more to come soon! :-\)](#)

committed 09:34PM - 10 Sep 24 UTC

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dellams
](<https://github.com/dellams>)

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-11

](<https://github.com/holochain-open-dev/holochain-client-csharp/commit/702c20c6920d625bd9a5049d6f4a8cb9496f65b8>)

This will be used as the foundations of the upcoming HoloNET HyperNET bringing [P...](#)

2P to gaming! :)

Why:

Just as photographs came before film - while we can't currently provide 'real time functionality', we can take a snapshot

, and build from there. This API can be called at the end of the game, to 'save' game state data from AWS, and load it at the beginning of the next in a cheap, secure way. Additionally, this API abstracts away the complexities of Holochain, creating a highly accessible API that any developer can call with just a single line of code. We are aiming to have this demonstrated by Battle 4, which is on October 4th.

2- What can we do NEXT

We mapped out how to develop a working Signals instance for Holochain. This will be called HyperNET, an upgraded version of HoloNET.

Why:

This feature will achieve the positive result we were looking for in the experiment, as well as potential benefits such as infinite players.

Creating a docker to port OASIS / HoloNET through to [Threefold](#)

github.com/NextGenSoftwareUK/Our-World-OASIS-API-HoloNET-HoloUnity-And-.NET-HDK

[Trying to get docker working!](#)

committed 06:46PM - 27 Sep 24 UTC

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](https://github.com/NextGenSoftwareUK/Our-World-OASIS-API-HoloNET-HoloUnity-And-.NET-HDK/commit/b6df93a4b69d6dbe135b1dcd65f911c1cb27469e)

github.com/NextGenSoftwareUK/Our-World-OASIS-API-HoloNET-HoloUnity-And-.NET-HDK
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[- Fixing OASIS API Docker Image.](#)

committed 02:24PM - 24 Sep 24 UTC

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](https://github.com/NextGenSoftwareUK/Our-World-OASIS-API-HoloNET-HoloUnity-And-.NET-HDK/commit/9e2dd8ff1f84208f661a00d2da43e690b70066e0)
```

- Removed JsonUrl from IMintNFTTransactionRequest interface for now from OASIS.A..

Pl.Core.

Why:

Holochain is just an architecture, it is not a storage host in its own right. Threefold offers a decentralised, distributed node network which we can host our software on - which, when functional, will offer an incredibly powerful alternative to AWS. Because OASIS is an abstraction layer across the entire open web, attaching it to a node network will give developers an easy way to develop and host powerful, scalable cross-chain dApps.

3- How can we ensure that no matter what, this experiment is a win for Arbitrum as a whole?

While we are very grateful for Arbitrum and Thrive letting us conduct this experiment, we were mindful that there are certain on-chain metrics which we also wanted to ensure we delivered on, to help grow the ecosystem as a whole. So while David focused on the pivots, I shifted my focus to working with Jorge from Stellar Gate, to build out the game world and make the battle series come off as a success. This part, we feel, certainly "went right".

What went right:

Without bigging ourselves up too much here, a huge amount of work went into this section, and we are proud of what we achieved in a short window of time with limited resources.

For a detailed look at the work that we did, please read this document:

[docs.google.com](https://docs.google.com/document/d/13b6rCJu4_vlHRCoeUnMcGZth_W-4bhOf_xC-uLT0xiU/edit?usp=sharing)

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](https://docs.google.com/document/d/13b6rCJu4_vlHRCoeUnMcGZth_W-4bhOf_xC-uLT0xiU/edit?usp=sharing)

OASIS - Stellar Gate Anomaly Series Thrive Milestone 3 Report

OASIS - Stellar Gate Anomaly Series Thrive Milestone 3 Report This report will form the basis for Milestone 4 Highlights: (Arbitrum-Specific) Stellar Gate Onboarded to Arbitrum As part of this grant, we brought Stellar Gate over from Phantasma to...

But to give a snapshot of what we did:

- Stellar Gate brought across from Phantasma to Arbitrum
- 25,000+ impressions on X
- 58 Unique wallet registrations
- 7 Smart Contracts written
- TAZZ token launched on Arbitrum
- 3 multiplayer battles hosted, with a final this coming Friday (October 4th)

Assets

- Trailer film created using runway, 50+ new visual assets created

x.com

HoloNET (@H0L0NET) on X

@H0L0NET

Our upcoming #holochain #gaming project with @ThankArbitrum and @stellargate_io is looking for sign-ups! Will you step up?

- Military promotions system automated

Closing remarks.

It's been said many times before, but building in web3 is like the Wild West.

In amid the gunslingers and card sharks, there are also those of us engaged in the serious task of building a new world. A lot of this territory is uncharted, there are dead ends and blocks aplenty. While we didn't reach the goal we were looking for in our experiment this time round, we did get a lot of learnings which will make us better equipped next time around. Crucially for myself, the idea that this is a shared journey, with a shared destination in mind, is one which matters - while alone we will quickly get lost, together we will make it. To that end, many thanks again to the Thrive team who gave us the chance to explore.

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John-H.C.-Grabill-1891-Photo-of-Villa-of-Brule.-Ranker

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](https://global.discourse-cdn.com/flex029/uploads/arbitrum1/original/2X/b/b487db241c1999dc5d58a4085356c15bbaa26e11.jpeg)

ONWARDS!