**BBU Tech Meeting**

WED 04/28/2021 2-3 EST

Meeting time x minutes

**Attendees**

Nick McGough, Daon

Aaron Reed, IBM

Karl Kneis, ID Ramp

Nat Holloway, USAA

Nolan Serrao, USAA

Lynn Bendiksen, Indicio

Hao Jiang

Mat

**NOTES**

New members on board Nolad, Mat and Hao. Welcome!!

Clarified that this is the Technical Research Group and not the Technical Steering Committee.

Lynn joined us today and went over some of the questions that he has gotten on the side and wanted to go over what those were. He gave a quick slide deck to help us get up and running.

Asked if the person that had the node up (CVS) was online and no one was there from CVS to answer.

Link to the presentation: <https://docs.google.com/presentation/d/1foaZYWA6tXnJ-WOOwGlKqlYZnvDhvYiF5GAaI3TFiJE/edit#slide=id.gd39b170d79_0_15>

Which build are we going to use - none specified in the “Bedrock Open Source Code.”

Q: Is there anything special about the Sovrin code: A: It adds about 30 different tools to monitor the network, code upgrades, instantiation, etc. If you wanted to replicate that repo then you would want to copy those builds to have those tools.

Most folks thought that would be a decent idea, but for now we are looking to just use Sovrin builds for now. If things change then we can revisit at a later date.

Lynn recommended the latest version as a starting point and then agreed that we should test newer builds as the consortium agrees.

Ubuntu 16.04 is the current version and they are working on a version for 20.04 to come out in about three to four months. 16.04 is End of Life soon and it may be difficult to get a cloud version going.

Lynn noticed that Bedrock’s governance docs that containerization was heavily recommended. It is very difficult to upgrade the software on containerization. Only a few nodes run it on Sovrin and none on Indicio. If someone installs it on a server they will have to dedicate the server directly to that container and run nothing else. Lynn’s seen some issues in support with containers running on it.

Clusters don’t work on Indy Networks and each node needs its own IP - one to communicate with the network and one to communicate with the client

Same IP is ok for testnet but on production it is not recommended. One IP is public and one is private. Also, there is no mechanism to resolve names in the Indy code. So, no domain names can be used in the genesis file.

Trustees

3 is a good number to have to sign to be the initial trustees to get the genesis going. At least 7 are recommended.

Each decision - approving new stewards and endorsers

Sign administrative transactions (upgrades, auth\_rules, TAA, etc)

Genesis Trustees must create and submit a DID for the Domain Genesis file, others must be approved and then added using 3 existing Trustee signatures

Nat TODO: Borrow Lynn’s steward and genesis file templates and add them to our google drive to fill out

Stewards are just have more responsibility - use “Founding” and not Genesis for the four Stewards that start the network

Recommended: Choose 4 steward with the following qualities:

1. Likely to be around a while

2. Likely to keep the same IP address

3. Likely to be able to keep their node maintained

4. Find those that will be strict with tech requirements

Q; If we have to add more nodes and change the genesis file will it destroy the history? No, it will be the active chain. The chain created at that point will still have the history of the chain.

It is not a popular decision, because the maintainers and the developers will have to redo their demos that have set up. It requires everyone on the network to use the new genesis file and reboot the network.

Node Installation

Lynn goes over the documents that he showed us the specific installation for Indicio. He said we are free to use these for examples. They opted to reduce the operational computing requirements to save money on unused computing power that they most likely will not need for several years. So far, things are working out ok.

Make sure that you have a directory name and location that are the same. It helps for maintenance.

Step 3.4 will need a form created. We will need to create a form of our own. A master spreadsheet that has a list of all the nodes

**Links to form in the Validation Preparation Guide - go there and make a copy - TODO**

ITN Genesis file creation notes - shows step by step on how to create the Genesis file

Put the genesis file in the network repo - we can use github

Step V

Add auth\_rules - they are not strict enough for a production network

Add a Transaction Author Agreement (TAA)

You have a failure ratio of 3 up to 1 down. When you have at least 10 nodes then 3 can go down.. Once you have 25 up then you can have 7 to go down

Add tools:

Selfservice portal?

Indyscan?

Monitoring?

<https://indymonitor.indiciotech.io>

Timing is extremely important - just use the default settings

They are all currently using version 1.12.4 for indy-node