STAMP-IT

Authority factom Proposal **April 2018**

Introduction

We are a team of three people which are enthusiast about Factom and the possibilities it opens. We are based in Canada, where we plan to start a for-profit company to operate Authority servers, develop and commercialize Factom.

We are thus very excited to present this application.

Team

The team is always the foundation to any project's success. We are convinced that the people we brought together for this new venture have all the qualities to develop and commercialize Factom based solutions. We already have experience with projects where Factom could be integrated and have a network of clients/partners who might be interested by such solutions. Besides maintaining Authority nodes, our team is well positioned to add value to the development of the protocol and increase the Factoid's usage. We have a contacts' network that will allow us to quickly expand and develop real world application, thus increasing the usage and the value of the protocol.

"A practical blockchain solution for those seeking a collaborative platform to preserve, ensure and validate digital assets"

- Factom Harmony

In this proposal

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- Financial planning
- Marketing and projects

Jimmy Perron

Jimmy Perron has an extensive knowledge in artificial intelligence, telemetry and geographic multiagent systems acquired during his master degree in these domains. Mr. Perron, which is on the honour roll of Université Laval (2003-2004), did his M. Sc. at the Laboratory of Cognitive Informatics under Dr. Bernard Moulin's supervision where he supervised the work of the team members who developed the multi-agent geosimulation platform. In November 2004 he co-founded Nsim Technology Corp. and has been its CEO ever since. Nsim is specialized in the development of advanced software systems based on a combination of techniques: artificial intelligence, IoT, geomatics, and knowledge management. It currently employs 14 full time software developers.

During the past 14 years, he led several research projects in various fields: multiagent systems, electro-optical systems, smart cities, mapping, simulation, modeling and design approaches for knowledge-based systems, as well as several projects at the intersection of geomatics, IoT and artificial intelligence.

Moreover, Mr. Perron has published R&D papers in AI revues and conferences.

Having started and managed a IT business for over 15 years now, Jimmy is the perfect person to leverage the full potential of this new emergent technology. We know how difficult it is to bring a new concept and overcome the psychological barrier some organizations might have towards the adoption of innovative products. Mr. Perron has the capacity to integrate Factom in several products he is working on, and he understands how to commercialize it. .

Patrice Lacroix

After graduating in computer science, Patrice Lacroix pursued graduate studies of formal methods at Université Laval. Static analysis of computer programs was the subject of his master's thesis, for which he created a static analysis framework.

He received his M. Sc. in 2006 and he teached information security part-time to computer science and software engineering students of Université Laval for 8 years thereafter. As his main job, he is a software architect for the government of Québec, where he acquired more than 10 years of experience working on large corporate systems.

His deep understanding of information security, cryptography and formal methods as well as his experience with the processes involved in large organizations and his software development background acquired in these are assets that fit perfectly for this new venture.

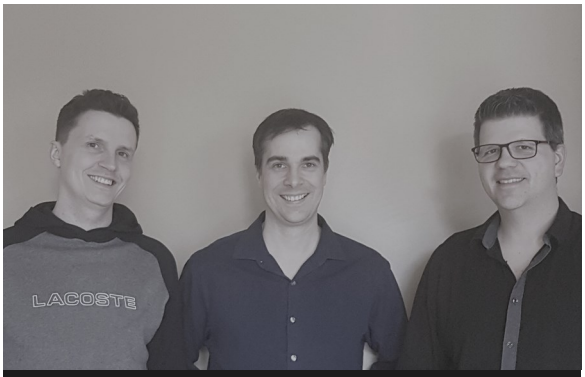
Miguel Proulx

Miguel Proulx graduated from Université Laval, Quebec, Canada, in 2003. After getting his B. Sc. A. in computer science, he worked for Bell Canada (IT/Telephony) for 1 year.

At the end of 2004, he then quit Bell Canada to play poker full time. Fast forward to 2013, after 9 years playing poker, he invested in Bitcoin and ran, for 2 years, a GPU farm of 50 rigs.

He developed tools to monitor the farm and maximize the revenues out of it. During that time, he also experimented with various trading bots and developed his own to automate his trades on the market.

For the past 2 years, he has mostly been devoting his attention to his investments in the crypto sphere by studying and exploring the underlying technologies, teams and possible use cases.



Miguel Proulx, Patrice Lacroix, Jimmy Perron

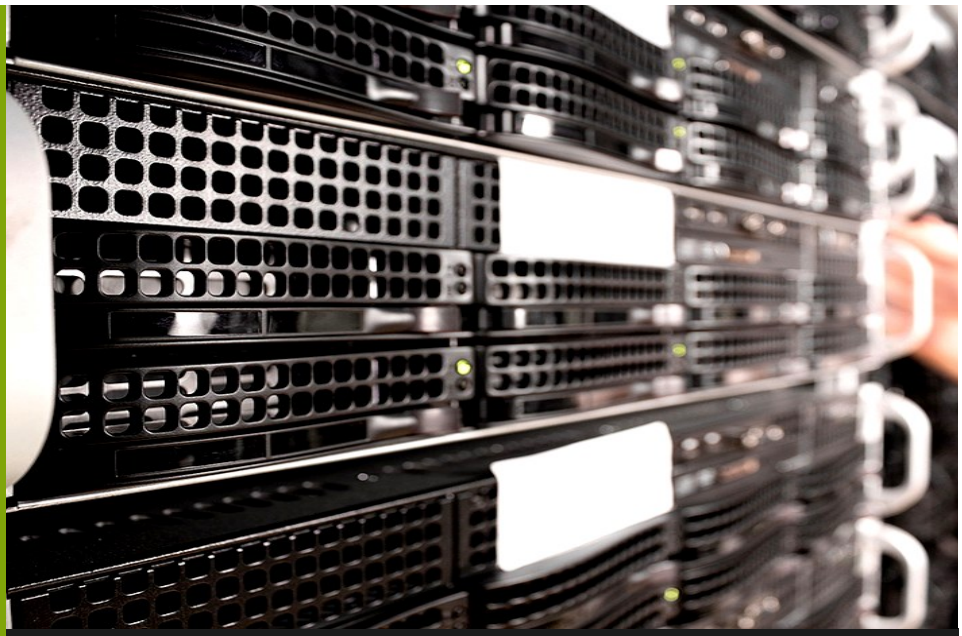
Proposed Authority Server Specifications

- Intel Xeon Bronze 3106 Processor (8 cores)
- 64 GB DDR4 memory
- 6 x 240 GB SSD
- 2 x Gigabit Ethernet
- 600W Redundant Power Supply

We evaluate that this server configuration will allow us to run an Authority node, two guards and network routing/ firewalling in virtual machines on the same physical server.

If we find out that this configuration is not sufficient, it can be upgraded easily: the motherboard and the chasis support up to two 22-core CPUs, 512 GB memory, 8 SSD and 6 PCI-E slots.

An additional and identical server, in a different datacenter, will allow us to switch Authority node in case of failure and during upgrade cycles, and will provide us more guards to add resilience to our setup.



Testnet server

Our Testnet server was deployed on April 10th 2018. We plan to continue running 2 testnet server on Testnet as Authority servers on the main Factom network. Here are the specifications of our server currently running on Testnet hosted by AWS:

- 2 cores (4 vCPU, Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz)
- 16 GB RAM
- 400 GB SSD (EBS)
- 2 Gbps connectivity provided by AWS, tested at over 560 Mbps for both uplink and downlink

Hosting of Authority Server

We decided to host our Testnet server on AWS Canada central region. However, to ensure Factom security, we think it is important to distribute Factom servers in datacenters controlled by different entities, using different network providers. Consequently, we will ensure that no outside entity has physical or network control of more than one of our Authority servers. We will also coordinate with other operators to ensure Authority servers will be spread at diverse geographical locations.

As of today, we plan to host our servers at 4 Degres (Québec, Canada) and Hypertec (Montréal, Canada). These locations have many network carriers which can handle factom traffic without problem. However, as described above, we are willing to host our servers at other locations. We will add other locations if we have more than one Authority server. Our servers will be online within the first month after we have confirmation of the attribution of Authority servers. In the mean time, we will host them in AWS.

Support

Enterprise grade support will be one of our goal from the start. To achieve this, we will have a system admin available 24/7. We will also propose and develop automated tools to monitor our Authority servers along with the networks and make sure that the downtime is limited to a minimum. Our team has vast experience in maintaining production servers around the clock.

Financial planning

Upon the creation of our corporate entity, 50 000$ will be invested to maintain the Authority servers, bootstrap the development and avoid liquidating the Factoids at the start. We plan to quickly hire developers in addition to the current founders.

The rewards we will get from running our Authority servers will be allocated as follows.

Grant (50%)

In order to help decentralize the development of the protocol, 50% of the rewards are going to be allocated to the Grant Pool.

Protocol development (25%)

Since the protocol is still in its infancy, a lot of work still needs to be done. We will allocate 25% of the rewards on the protocol development. Furthermore, we will provide resources to work on the grants proposals.

Commercial development (25%)

The best way to increase the protocol's value is to increase its usage. Therefore, we will invest the remaining funds toward the generation of leads and development of uses cases that will leverage the use of Factom. See the "Factom Projects" section for examples of such use cases.

Marketing

Initially, we will use our existing channels to promote the integration of Factom where it could be needed. As our commercial revenues are increasing, we plan to contribute to the marketing of Factom on a larger scale by organizing hackathons, setup and contribute to a blog and participate to commercial shows like crypto-conference and Blockchain Summit, etc..

Projects

Our team has several projects underway with institutional clients namely: cities, government, entertainment, defense and security. The objective is to propose the integration of the Factom protocol to these existing projects/clients.

Smart cities

Cities are processing several transactions daily with their clients. Considering the nature of these transactions (taxes, license, land registry, contracts, etc.), they must handle carefully all your information and should be completely transparent in order to know who, when and why someone access your files. In order to fulfill this obligation, some business processes are implemented in the organization but these processes are never completely transparent.

Currently, we are working with more than 20 cities in Canada to develop and implement technological solutions. It will be a part of the commercial development to propose products and solutions to integrate Factom in such organizations..

Financial technology

One of our partners develop and commercialize a simple and safe solution that manages your day-to-day life, and your life after death. The new innovative platform combines multiple modules, allowing you to manage your assets, contracts, suppliers, IDs and more, in one place. That’s one less thing to worry about everyday. All data are encrypted and centralized in a large SQL database.

When a person dies, the system will give access (with a patented process) to your legal contacts, which will be advised in due course to act as a resource person. In order to trust this kind of platform, the legal contact must be confident that all the stored profile and data of the deceased person have not been altered by anyone.

By integrating the Factom protocol, the security level will be increased and everyone will be able to really trust the integrity of the data.

Blockchain as a service

Many applications in diverse fields could benefit from Factom, but learning how a blockchain works takes time, and the time of developers is usually better spent improving core functionality of their product. To help our clients integrating Factom in their application, we will develop and operate a cloud service callable using developer-friendly API, which will be publicly accessible. This will facilitate integration of Factom in many applications.