

CALLING FOR CO-FOUNDER and CTO

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1. The LE Company – Letter from the founder

Some years ago, I joined a startup company development RFID technology in Vietnam. At that time we planned to build a platform software to manage thousands of RFID readers in a wide area as city or even entire of the country. We named it as STAT middleware (Splendid Track And Trace). The STAT was built to manage and process a huge data sending over from many RFID readers in a real time processing manner. One of our challenges that each RFID reader only supports a proprietary protocol designed by the RFID reader maker. So we have to deal with multiple protocols from different RFID reader models when they connect to our server software platform. Inspired by this project, I have come up with an idea of connecting all devices by using a unique protocol and it is named as UHES protocol (**U**nique **H**ome **E**lectronic **S**ystem protocol).

So today, I found **The LE Company** to realize this idea. More details about company, please visit: www.lecompany.co or you can contact me directly at email: info@lecompany.co

Warm regards.

Thang Le.

2. Our Vision

Internet of Things (IoT) will become one of main industries in a near future where are billions of devices to be able to connect and communicate together. As an IoT technology company, you may join this industry as an IoT device maker or an IoT software platform provider or both. *In The LE Company we choose to focus on the IoT software platform with a bit involving in hardware as making IoT devices for reference.* Think about this like Google Android OS, they build and licensed Android OS. They also make some referenced phones just to show the power of Android OS at least in the past.

So almost our profit will come from software services selling than IoT devices selling.

So we target to provide a high quality IoT software platform (**Neon IoT Platform** as you can see in the company website) that helps all IoT device implementing the UHES protocol (aka UHES device) connecting to.

Who are our customers?

Generally, there are two kind of our customers: *any IoT device maker* who makes IoT devices especially consumer device makers and *end users* who buy UHES devices.

For IoT device makers, we provide license to these partners if they want to build UHES devices. At this time we focus on SME companies.

Big device makers have their own eco system so maybe they will NOT need our platform and UHES protocol. However it is still possible if big device makers build IoT devices supporting both the UHES protocol and other protocols so device makers don't depend on any unique IoT platform.

For end users, there are 2 kind of users: *individual users* and *enterprise users*. *Individual users* basically paid for us via UHES device makers so when they buy a UHES device, so they just simply connect it to our Neon IoT platform and free to use it. Maybe we provide some advanced features that user needs to buy to utilize.

Enterprise users as farm, factory... They might need some specific IoT devices to manage and monitor their premises and also these devices access to our Neon IoT platform. We can make a particular agreement with them.

3. Your mission – Co-founder and CTO

In order to build the company successfully we need your help to bring up our vision into the real life. As a Co-founder and CTO generally **we expect you to have:**

- 1) *You must be a Vietnamese. Citizenship and location are not important. Prefer Canada or USA citizen/ permanent resident.*
- 2) *B.S degree or higher.*
- 3) *Be able to understand technical document and source code.*

- 4) *Be able to write code at senior level (mastering on either embedded or enterprise system).*
- 5) *Be familiar with software/hardware development process.*
- 6) *Experience on big data, machine learning are a very big advantage. Good in Big(O) algorithm. Knowledge on distributed system.*
- 7) *Open-minded, to be able to learn and adapt quickly with the new trend of technology.*
- 8) *Prefer age from 30-55, single or married. Having a good family relationship, close in touch with family as mom, dad, sibling, kids...*
- 9) *Slightly financial independence. It doesn't mean that you are a millionaire but just stable income 😊.*
- 10) *No criminal records.*
- 11) *Be doing a startup, understanding that you are entering to a high risk zone. So for long lasting survival, then the ethic codes, patience and passionate about technology are very important.*

In technical details, we expect you are good on both embedded system and enterprise system. If not then we expect at least you are master in one of these two.

In our platform, both front end and back end are challenges. Especially, Neon IoT platform does not know in advance about capability of an UHES device until it is actual connected to the server. Once device connected to the server, then at this time server will start build a proper GUI for that device based on information that device provided (following UHES protocol).

Below are software stacks that we are using for developing the Neon IoT platform which is a server application:

- 1) Java Spring.
- 2) Spring reactor (for IPC)
- 3) Spring JPA transaction
- 4) Hibernate (MySQL)
- 5) Redis NoSQL, RabbitMQ

- 6) Vaadin (<https://vaadin.com>)
- 7) Websocket protocol
- 8) Restful web services
- 9) Eclipse Link (XML marshalling)
- 10) Javascript.
- 11) Maven build tool.
- 12) Some design patterns (MVP, MVC)
- 13) Git (bitbucket)

Below are software stacks that we are using for developing the UHES device firmware:

- 1) Embedded Linux for ARM.
- 2) Linux device driver: I2C, SPI, GPIO.
- 3) D-BUS (IPC)
- 4) Lite SQL (Database)
- 5) Cryptography (to encrypt/decrypt data, SSL connection)
- 6) Secure Websockets
- 7) Restful web services
- 8) JavaScript (Bootstrap for UI design, board can play as a web server)
- 9) mDNS (for Wi-Fi local connection)
- 10) XML/Json
- 11) C/C++ language
- 12) Python for build tool
- 13) Git (bitbucket)

In near future, we plan to change the server application to micro-services architect using Spring Boot and related technologies. Also Vaadin to be migrated to Vaadin 10 to support mobile UI friendly. Currently, the application is running on the distributed system.

So with all above bull-sh*t things ☺, as a CTO **we expect you to do:**

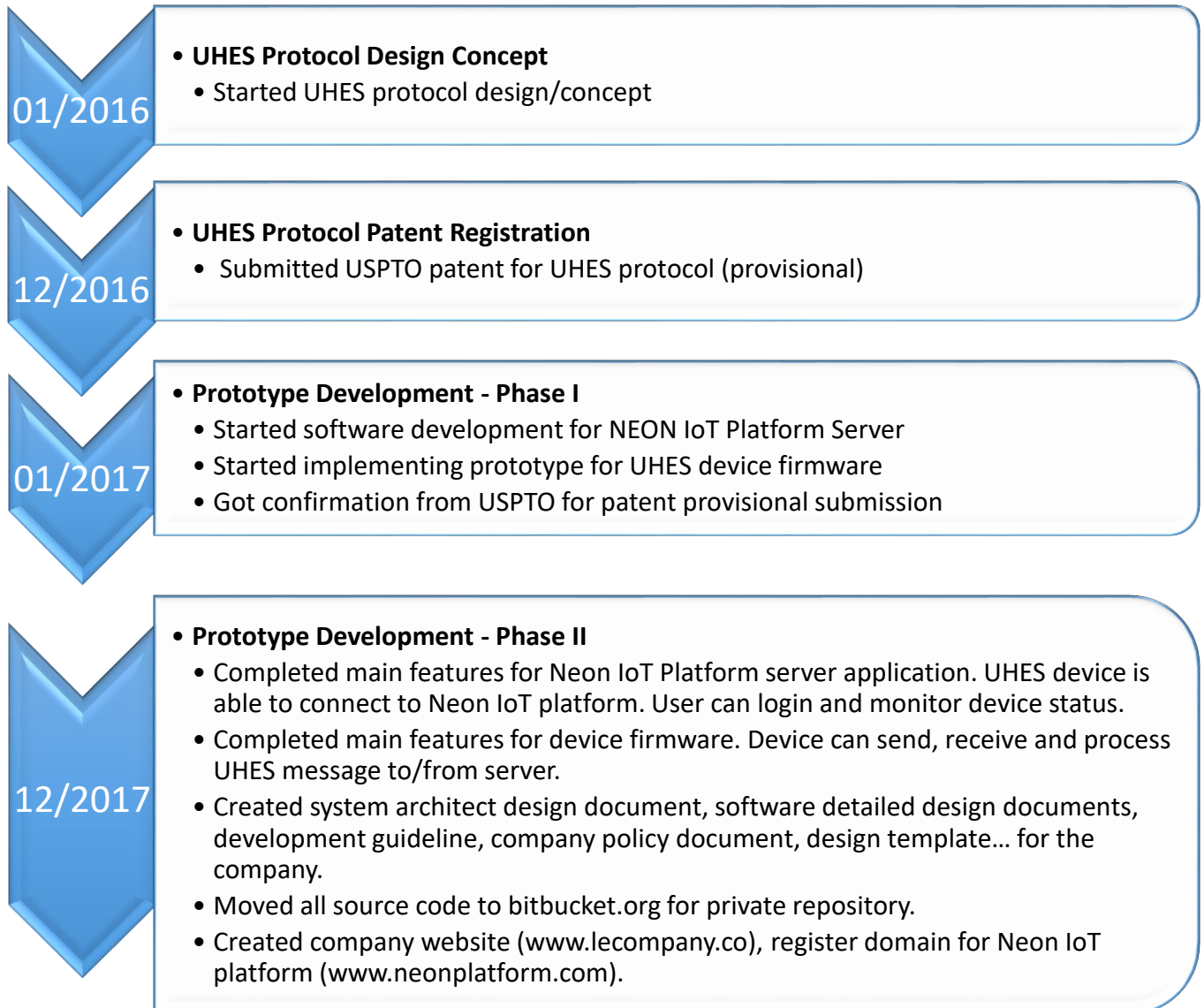
- 1) Directly design, develop and manage the team (in future) to build *Neon IoT Platform* with high quality.
- 2) Plan to migrate software system to new architect (micro-services, distributed system) to be able to process big data, easy to scale, maintenance and testing...

- 3) Plan to migrate front-end to Vaadin 10 for supporting mobile UI friendly.
- 4) Overall manage all technical teams (device team and server team).
- 5) Security concern for IoT devices to be considered carefully.
- 6) Apply Machine learning and Blockchain technology into the system. You may reference <https://www.iota.org> or <https://platform.neuromation.io>
- 7) To work together with the founder and other co-founders (also strong technical background) to give important decisions for the company.

What are your benefits ?

- 1) You are shared **xx** % of total equity of The LE Company. Contact us for **xx**.
- 2) You are NOT paid for any salary until company having profit because you are a co-founder.
- 3) You are NOT requested to work full time right now. Just doing your work in your free time until you think there is good time for you to work full time with the company.
- 4) You are able to work anywhere you want as long as you are able to access internet.
- 5) You are willing to pay up to **yyyy** USD/month (contact us for **yyyy**) to operate the company. However this request may change depending on our financial situation so maybe **yyyy** = 0.

4. Our Roadmap



06/2018

• Prototype Development - Phase III

- To complete PCB design for extension board (for power management and sensor connection).
- To complete building cover for **Wi-Fi electric socket** prototype.
- To complete Central Dashboard implementation for server.

07/2018

• Prototype Development - Phase III

- Fully completed prototype both server and device. The prototype is made in Vietnam for demonstration.
- Looking for customers (farm, small factory...), main focusing on local customer first.

12/2018

• Explorer market - Phase IV

- Upgrade Pivotal web server cloud to commercial grade. Neon IoT Platform fully supports https (<https://neonplatform.com>).
- Upgrade Redis and RabbitMQ cloud to commercial grade.
- Upgrade MySQL cloud to commercial grade.
- Mass production, the product goes to live (1).

2019

- Domestic marketing/Global marketing.
- Migrate server application to micro-services architect, high availability.
- Migrate front-ent to Vaadin 10 to support mobile friendly UI.
- Support graphic programming to customize UHES devices.
- Integrate AI, blockchain technology into the system.
- *Detailed milestones for 2019 -> TBD.*

(1) At phase IV, we just try to probe market so below are what we will do:

1) Build some **Wi-Fi electric sockets** with sensors supporting and selling to Vietnam market. *Price is low. The company has to accept loss money to introduce the Neon IoT platform and UHES protocol.*

2) ...

More details to be discussed separately. Contact us now.



Revision History

Date (D/M/Y)	Revision	Description	Author
22/04/2018	0.1	- Initial version.	Thang Le
26/04/2018	0.2	- review roadmap, change to publication status	Thang Le
08/07/2018	1.3	- update requirements, change revision format	Thang Le