Q/A for the MION sub-project proposal

Q1: What is the expectation from the IC

- Approve MION as a sub-project under networking
- Upon approval from the IC, the sub-project will be in an "**Incubation phase**" per the OCP software governance model.

Q2: Will MION replace ONL?

- No, ONL is Debian based and MION is Yocto based.

Q3: What are the key-highlights of Mion?

- Think of it as a base OS switch for networking
- Switching functionality is put onto the top
- It has support of containers and efficient that way
- ONLP and ONLPv2 are compiled and running on MION
- It will come with full documentation. ONLP didn't have much documentation.
- Formal Yocto code expected by the end of September 2020.
- MION is currently being validated on Edgecore 5916 OLT device.
- MION is also being validated on BNG switch/OLT
- Currently MION is developed against the Yocto Project LTS dunfell

branch with plans to develop against the current head of the main branch as well once they have the resources to do so.

Q4: Does this project need a charter?

- We could use the charter from other networking projects or create a new one specific to this sub-group.

Q5: Are we supporting the collaboration of the same community?

- Yes, same community. Some part of the community uses ONL with DENT, DaNOS & Stratum. Some use ONLPv1/v2 for APIs.

Q6: Does MION do something similar to what ONIE does?

- Mion supports the ability to create the ONIE package, but by default, MION is suggesting the bare metal installation.

- Why do they do this?

    - To allow people to try mion out on their currently ONIE based machines and to allow end user choices

Q7: What is MION capacity footprint?

- The currently installed uncompressed base system with guest currently comes in at 240M. If you add Mender to the mix double that. There is some size optimisation I believe they have been working on to bring those numbers down quite a bit (with the goal is to half the size to 120M uncompressed for the base OS)

Q8: Is it going to need a disk?

- No, they have the OS based mion on running on everything from SD cards to nand flash.

Q9: How much RAM MION needs?

- 120M is what they are seeing right now on a switch with 32G of RAM.

Q10: How big is the image once built?

- Compressed image is 120M, uncompressed 240M

Q11: How long does it take to build?

- Initially (and depending on the size of your system, network speed) the base OS takes about 30-45 minutes. Subsequent builds take anywhere between 2-3 minutes to longer depending on what in the dependency chain needs to be rebuilt. Rebuilding something at the end of a dependency chain? 5 minutes. Something earlier (like gcc or glibc)? 20 minutes.

Q12: What special bits does it need?

- I believe they are using a well known distribution build system and generator.

Software Project Definitions

ONL

- The ONL is designed to support multiple platforms with the same image and distribution. The ONLP Application API provides unified access to all of these different platforms at runtime.

ONLP

- Based on APIs
- Your implementation libraries contain similar, but reduced, functionality necessary to support the features needed by the platform and the upper layer software.

MION

- Explained in Question no-3
- Detailed description of current challenges and how MION solves these challenges have already been shared with the IC.
- A copy of the detailed description can also retrieved from https://github.com/opencomputeproject/mion/blob/master/200630_ONLv2.pdf