STRENGTHS

- Aim to build a free global IoT network based on LoRaWAN technologies
- Free and open source software for LoRaWAN backend servers
- Open source hardware for The Things Network Gateway
- Strong global community growth
  - 200 communities globally as of August, 2016
- Active involvement of communities
- Strong TTN Global Team
- TTN staging server released on April 2016
- TTN production server planned to be released in early 2017
- Strong community forum for support and Q&A
- Somewhat good documentation
- Possible to set up a private TTN network
- No need for roaming as far as nodes are part of the TTN network
- Currently supporting LoRaWAN Class A devices, so people can start doing amazing projects

WEAKNESSES

- Currently supporting LoRaWAN Class A devices only
- LoRaWAN Class B devices will not be supported
- Class C devices will be supported in the future
- Fair Access Policy Limitation (True to all LoRaWAN)
  - An average of 30 seconds uplink time on air, per day, per device
  - At most 10 downlink messages per day, including the ACKs for confirmed uplinks (could allow more downlinks by putting more gateways in the area)
- Documentations are distributed, and outdated and new documentations are mixed up. It creates confusion
- No administrator manuals and user guides for backend server components
  (See a good documentation example at https://docs.loraserver.io/loraserver/)
- Unknown performance capabilities, scalability, and reliability of the TTN backend server including gateways
- No device (nodes and gateways) management facility

SWOT on TTN

OPPORTUNITIES

- Opens up tremendous IoT business opportunities for start-ups and businesses of all size
- Opens up endless IoT educational opportunities for K-12 to university students
- Opens up opportunities for global/national volunteer-centered citizen projects like Safecast (http://blog.safecast.org) in all areas
- Opens up the door for everyone to build IoT prototypes without monthly network usage fees

THREATS

- Telcos quickly deploying nationwide or regional IoT networks based on LoRaWAN
- No ISM band standard published yet (as of August, 2016) for far some Asian countries such as Korea, Japan, and New Zealand
- Commercial LoRaWAN cloud service vendors such as Loriot (https://www.loriot.io) with geographically distributed LoRaWAN backend server data centers