# 1) Edge computing on data analytics:

To further decrease the latency, multiple cloud instances can be created in AWS at multiple locations. AWS allows you to choose data center locations for your VM instance. This could be an interesting observation. A sync between cloud and edge servers can also be implemented which ensures integrity of data.

# 2) Collaborative indoor localization and mapping:

There are applications for the same purpose in one of the 802.11 standards too. They leverage signal power and other antenna parameters for locality tracking. Author may want to look into that. Also, from what I can gather, application will use signal strength of Bluetooth signal, there are ways to configure the Bluetooth radio signal emitters manually. These configurations may provide a better performance.

# 3) Decentralized DNS Using Block Chains:

From my knowledge, DNS is not completely centralized. They do have a hierarchy of servers and they do keep replicated instances of servers and redundancy for higher availability of the system. Authors may want to investigate the downsides of changing the current implementation such as infrastructure requirements. Also, a look into how using the proposed solution tackle vulnerabilities such as server failures or corrupted sync between them.

# 4) Distributed load balancing for air traffic control systems:

I think this approach increase the message passing frequency. On a network with higher latencies and lower throughput may actually make inefficient. Can there be a dynamic decision maker who computes these parameters too and decides on whether to take a more centralized approach or go for distributed approach? Testing it over network or simulating the delays may be a good way for testing. Also, for highly critical systems such as air traffic control, system should be the fault tolerant and highly available.

# 5) Distributed machine learning in edge networks:

Most GPUs are designed for SIMD executions. I am not quite familiar with the machine learning application design but if it is multiple instructions rather than multiple data points than leveraging GPU would become tricky. Great idea for evaluation. Testing it over network or simulating the delays may be a good way for testing.

# 6) Distributed network function virtualization:

Research on the trade-off of moving to a software solution compared to a hardware one would be a good edition. Pros and cons of both would be a good way to showcase the benefits. Is there a hybrid solution like some switches that do management/control plane on X86 but do data plane forwarding using custom ASIC? There are parallel IP architectures that may be useful.

# 7) Analysis and comparison of different distributed machine learning systems:

The idea seems to be quite intriguing. But, there are certain keywords used in the paper are assumed to be understood by the reader. For example, machine learning terminology such as parameter server is unknown to people from an electrical/systems background. Authors may want to consider adding some pretext and background on such concepts. The end goal is a little vaguely defined, that could be updated too.

# 8) Scalable solutions for cyberbullying detection:

I could not quite understand how the system will determine a bully case versus a benign comment. Are there any present implementations for such an application? If so, how do they function? That can be added to the paper. On top of it, there can be a reporting structure that takes action/reports abuse using the data application generates so that bullying can be stopped. Application can also keep a log of all the users it detected so that it can use that log in the future as a reference.

# 9) Power Distribution in Smart Grids:

Power grid needs to be a reliable and highly secure system. Some work on fault tolerance i.e. how system will treat an outage might be added. Also, work on how system would detect that the power I generated is lower than the power consumed and notify the users that there will be an outage in the future could be a useful feature. Usage statistics and tracking would also be needed for billing purposes I guess.

# 10) Phantom traffic jam avoidance:

The latest 802.11 wifi standard has some specs about automobile communication. That can be used for getting more ideas. What kind of sensors and data would be required would be a good addition. Sonars, radars, infrared etc would be good options to be considered. May be GPS can be used too.