

## Developing Highly Scalable Solution for SON



### THE CLIENT

The client is a start-up in the field of Wi-Fi (Wireless Networks) solving the problems of self-optimizing networks for various product vendors.



### BUSINESS NEED

The customer wanted ALLEN Calsoft Labs to develop a centralized server hosted on cloud (public/private cloud platforms) which can do the following:

- Scale infinitely for serving millions of access points at the same time
- Provide a scalable storage to host the statistics generated by all the Wi-Fi Aps



### TECHNOLOGY USED

- Platform: Hadoop
- File System: Hadoop Distributed File System
- Paradigm: MapReduce
- Machine Learning Tools: Mahout
- Language: R



### SOLUTION DELIVERED

ALLEN Calsoft Labs re-architected the SON server (PULL model was changed to PUSH model) thus making it stateless so that the services can be easily scalable with the integration of MOM service running between the client access points. The SON server offered high availability, scalable infrastructure and acted as a load balancer to balance the load across multiple servers.



### BUSINESS BENEFITS

- Making the server stateless, it is possible that any server can process the requests originated by any AP and can scale infinitely along with high availability offered by the MOM service sitting between server and the Aps.
- The usage of RabbitMQ, Celery and MongoDB provided a scalable and robust solution.

### ABOUT ALLEN CALSOFT LABS

ALLEN Calsoft Labs is a next gen digital transformation, enterprise IT and product engineering services provider. The company enables clients innovate, integrate, and transform their business by leveraging disruptive technologies like mobility, big data, analytics, cloud, IoT and software-defined networking (SDN/NFV). ALLEN Calsoft Labs provides concept to market offerings for industry verticals like education, healthcare, networking & telecom, hi-tech, ISV and retail. Headquartered in Bangalore, India, the company has offices in US, Europe and Singapore. ALLEN Calsoft Labs is a part of ALLEN group, a leader in technology consulting and engineering services.

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