CS4400 assignment 3

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D-stream

Paper 1: Securing Fog Computing for Internet of Things Applications: Challenges and Solutions

• Four key conclusions

- 1) Fog computing is a step further from cloud computing as it extends storage, computing and networking resources to support massive internet of things applications.
- 2) It also raises various privacy and security issues for users.
- 3) Fog computing is more secure than cloud computing.
- 4) Fog computing is decentralised.

• Four key technology insights

- 1) Smart traffic lights
- 2) Decentralised vehicular navigation
- 3) Healthcare and activity tracking
- 4) Edge content caching

• Four key insights of relevance to fog computing

- 1) Big data analysis can be done more efficiently using fog computing.
- 2) Fog computing reduces the time for complex computational operations such as cryptographic operation, image processing, etc.
- 3) Fog computing offloads computational tasks thus reducing the response delay of the system and at the same time making it more energy efficient.
- 4) Using fog computing we can easily manage billions of internet of things devices used in large scale internet of things application.

Paper 2: Mobile Edge Computing: A Survey

• Four key conclusions

- 1) Mobile edge computing provides storage, bandwidth and battery life to the resource constraint mobile devices.
- 2) Mobile edge computing can provide flexible resources to the applications involving intensive computational tasks.
- 3) There are some security issues which still needs to be addressed before mobile edge computing is deployed commercially.
- 4) Mobile edge computing offers cloud computing by pushing cloud resources to the edge of the mobile network to fulfil application requirements.

• Four key technology insights

- 1) Connected vehicles
- 2) Smart grid
- 3) Wireless sensor and actuator networks
- 4) Video analytics

• Four key insights of relevance to edge computing

- 1) It is more energy efficient.
- 2) It can be used for mobile big data analytics.
- 3) It removes the storage limitation on mobile devices.
- 4) It reduces the latency and provides high bandwidth.