CLOUD BASED SENSOR BIG DATA MANAGEMENT: A LITERATURE REVIEW

A THESIS SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI'I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

PH.D.

IN

COMPUTER SCIENCE

MAY 2017

By

Anthony J. Christe

Thesis Committee:

Philip Johnson, Chairperson John Doe Jane Doe The Who

Keywords: literature, review, sensor, networks

October 24, 2016 Version 0.0.1 Copyright © 2017 by Anthony J. Christe

TABLE OF CONTENTS

Li	st of	Table	s										 •			 •					iv
\mathbf{Li}	st of	Figure	es .											 ٠							\mathbf{v}
1	Intr	oducti	ion											 •							1
	1.1	Intern	et of	Thing	s .									 •							2
	1.2	Big D	ata.											 •							2
	1.3	Cloud	Com	puting	g									 ٠						•	2
		1.3.1	Dist	ribute	d Sto	orag	ge S	Syst	em	ıs				 ٠						•	2
		1.3.2	Ana	lysis .														•			2
	1 4																				2

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1 INTRODUCTION

The exponential increase in volume, variety, velocity, veracity, and value of data has caused us to rethink traditional server architectures when it comes to data acquisition, storage, analysis, quality of data, and governance of data. With the emergence of Internet of Things (IoT) and increasing numbers of ubiquitous mobile sensors such as mobile phones, distributed sensor networks are growing at an unprecedented pace and producing an unprecedented amount of streaming data.

Cloud computing frameworks can provide on-demand availability and scaling of virtual computing resources for storage, processing, and analyzing of very large data sets in real-time or near real-time. This model makes it possible to build applications in the cloud for dealing with Big Data sets suck as though from large distributed sensor networks.

By using the cloud as a central sink of data for our devices within a sensor network.

- 1.1 Internet of Things
- 1.2 Big Data
- 1.3 Cloud Computing
- 1.3.1 Distributed Storage Systems
- 1.3.2 Analysis
- **1.4**