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An Investigation into Building a Multiplayer Online Game Using Named Data Networking

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of the requirements for the degree of
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1 Abstract

2 Introduction

Hello world [1]

3 Related Work

3.1 Background

- Existing IP based internet: host abstraction, where it comes from
- How it has scaled
- What it supports / doesn't support (mutlicast etc)
- History of ICN (CCN –> NDN, Parc etc)

3.1.1 ICN Motivation

- VoCCN has some good quoutes
- Hierarchical naming
- Mapping IP to ICN (VoCCN notes)
- Security (data rather than channel)!
- Content Dissemination
- Tradeoffs with IP
- Runs on anything (easy deployment incrementally)

3.2 State-of-the-Art

3.2.1 NDN

- NDN Naming
- Structure of NDN Packets
- FIB, PIT, CS
- NFD
- Caching
- Routing
- Security!
- Multipath forwarding (not spanning tree, loop detection)

- NDN Tools, Libraries and Frameworks etc

3.2.2 Real Time Applications using NDN

- How might it handle inherently host based communications (e.g. voice, converence calls)
- VoCCN + other papers

3.2.3 Distributed Dataset Syncrhonization

- History of sync
- Challenges
- ChronoSync in detal

3.2.4 Video Game Architectures

- Taxonomy of data
- Architectures (C/S, P2P, Hybrid)
- Specifically how things are handled on P2p

4 Problem Statement

5 Design

6 Implementation

7 Evaluation

8 Conclusion

Bibliography

[1] Albert Einstein.

Appendices

App. A Source Code for DNS Management System