Illuminating a small network: Perspective from within

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1. Introduction

1.1 Questions

In this section we enumerate research questions that we would like to answer in this report. We forsee at least three important questions in this report. Namely those are: **(i) What to measure in the enterprise networks?** By answering this question we attempt to shed the light on most important characteristics in the network traffic analysis. Be it latency, throughput, goodput, error and loss rate, availablitity. **(ii) How to measure?** Here we would like to answer how to perform the network measurements. For example, how to select ventage point, how to minimize the dataset, but still be able to grasp the most important characteristics of the network. **(iii) When to measure?** This question is also important for a number of reasons. Selecting correct measurement period and correct duration of the measurements intervals will have the important impact on the quality of the research outcome.

By answering these questions properly one can illuminate the performance of the networking infrastructure. Note, in this work we are considering only small networks, comprising 10-100 devices. However, we believe that these questions are also applicable to larger networks and more complicated topologies.

2. Background

This section consists of several important parts: First, we discuss main network characteristics of the network; Second, we describe various types of network topologies and device orchestrations; Third, we present various tools which are useful in eneterprise network measurements; Finally, we discuss most wide spread network protocols to watch out for in the enterprise network traffic.

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3.3 Performance, performance and once again performance: Stressing the outside world

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Bibliography