UNICAMP - State University of Campinas

School of Electrical and Computer Engineering (FEEC)
Department of Computer Engineering and Industrial Automation

Date: Dez 18, 2014 **Working Plan:** #1
WP Period: Jan 05, 2015 - Fev 13, 2014 **Review DL:** mmm dd, 2015
Student: Anderson dos Santos Pachoalon
Advisor: Christian Esteve Rothenberg

Report

* Today all internet traffic routing is made using the IP protocol (IPv4 and IPv6) with was originally designed to perform connections between two end-poins. What means the internet has a host-oriented architecture. Content Centric Networking (CCN) is an protocol proposed to compose future internet architecture. Endpoints communicate based on named data instead of IP addresses. This new design could provide a more flexible, scalable and secure network, with much less redundancies on data being transfered, saving bandwidth.

* Mini-CCNx is a tool for agile prototyping of Information Centric Networks (ICN) based on the Content-Centric Network (CCN) model. Most of its code code is made in Phyton.

Motivations:

* Improve the knowledge on modern networking tenologies;
* Gain skills to understand the core of CCN technology and be capable to add new functionalities to Mini-CCNx project;
* Security as a key-point to network's technologies.

Tools:

- Mini-CCNx:
  (https://github.com/chesteve/mn-ccnx/wiki)
- Phyton's tutorial with execution windows:
  (http://www.afterhoursprogramming.com/tutorial/Python/Introduction/)

UNICAMP - State University of Campinas
School of Electrical and Computer Engineering (FEEC)
Department of Computer Engineering and Industrial Automation

Week Work Plan

	Tasks	Status	Week 01/05	01/12	01/19	01/26	02/02	02/09
Papers to reed								
01.	SCOM: A Scalable Content Centric Network Architecture with Mobility Support	To do	■					
02.	A Performance Analysis of Content Centric Wireless Networks	To do	■					
03.	Large-scale emulation for Content Centric Network	To do		■				
04.	High Fidelity Content-Centric Experiments with Mini-CCNx	To do		■				
05.	Mini-CCNx: Fast Prototyping for Named Data Networking	To do			■			
06.	Reproducing Real NDN Experiments using Mini-CCNx	To do			■			
07.	A comparative study of Content-Centric and Content-Distribution Networks: Performance and bounds	To do				■		
08.	Designand implementation of Content Warehouse for optimal performance of Content Centric Network	To do				■		
09.	Exploiting end-users caching capacities to improve Content-Centric Networking delivery	To do					■	
Chapters of Books to read								
11.	" Cryptography and Network Security – Principles and Practice" 6th edition : chapters 6 to 7	To do	■					
12.	"Phyton – Essential Reference" 4th edition, David M. Beazley : chapters 1 to 5	To do	■					
13.	" Cryptography and Network Security – Principles and Practice" 6th edition : chapters 8 to 9	To do		■				
14.	"Phyton – Essential Reference" 4th edition, David M. Beazley : chapters 6 to 9	To do		■				
15.	" Cryptography and Network Security – Principles and Practice" 6th edition : chapters 10 to 11	To do			■			
16.	"Phyton – Essential Reference" 4th edition, David M. Beazley : chapters 10 to 11	To do			■			
17.	" Cryptography and Network Security – Principles and Practice" 6th edition : chapters 12 to 14	To do				■		
18.	" Cryptography and Network Security – Principles and Practice" 6th edition : chapter 15	To do					■	
Code to study								
19.	https://github.com/chesteve/mn-ccnx/wiki	To do				■	■	
Result Report								
20.	Presentation of WP Results	To do						■

Anderson dos Santos Paschoalon
Friday 19th December, 2014