

Autonomic Classification of IP Traffic in an NFV-Based Network



ANNEXES

Trabajo de grado

María Camila Martínez Ordoñez

Juliana Alejandra Vergara Reyes

Advisor: PhD. Oscar Mauricio Caicedo Rendón

*Departamento de Telemática
Facultad de Ingeniería Electrónica y Telecomunicaciones
Universidad del Cauca
Popayán, Cauca, 2017*

Autonomic Classification of IP Traffic in an NFV-Based Network

María Camila Martínez Ordoñez
Juliana Alejandra Vergara Reyes

Trabajo de grado presentado a la Facultad de Ingeniería
Electrónica y Telecomunicaciones de la
Universidad del Cauca para obtener el título de:
Ingeniero en Electrónica y Telecomunicaciones

Advisor: PhD. Oscar Mauricio Caicedo Rendón

*Departamento de Telemática
Facultad de Ingeniería Electrónica y Telecomunicaciones
Universidad del Cauca
Popayán, Cauca, 2017*

ANNEX A

This annex presents the content of our GitHub repository.

Table 1 presents the content of our GitHub repository (available online in URL: <https://github.com/CamilaMartinezJulianaVergara/Autonomic-Classification-of-IP-Traffic-in-an-NFV-based-Network>).

This repository contains the creation codes of the different test networks used in the development of our work and the datasets created for the training of the algorithms.

FOLDERS	FILES	CONTENT DESCRIPTION
Instructions	Install_DITG.txt Install_Mininet.txt Install_OVS.txt Ryu.py	This folder contains the steps for installing and configuring the necessary software elements for NFV-based network deployment.
NFV-based SDN	Network1.py Network2.py Traffic.dat Tshark.txt	This folder contains the scripts for creating the networks in Mininet with their respective network configurations. The script for generating traffic using D-ITG, and the T-sahrk command line for traffic capture.
NFV-based LTE EPC	Network.txt	This folder, references the work “Virtualized Evolved Packet Core for LTE Networks” (available online in URL: https://github.com/networkedsystemsIITB/NFV_LTE_EPC), in which the configuration and deployment of the LTE EPC network is presented.
Datasets.tar.gz	PointA.arff PointB.arff MME.arff	This folder contains the <i>Traditional</i> datasets of each network.

Table 1: GitHub repository

ANNEX B

This appendix presents the papers written during the development of our undergraduate work.

- **Juliana Alejandra Vergara Reyes, Maria Camila Martinez Ordoñez, Armando Ordonez, Oscar Mauricio Caicedo Rendon. IP traffic classification in NFV: a benchmarking of supervised Machine Learning algorithms** IEEE Colombian Conference on Communications and Computing (COLCOM 2017), August 16th - 18th, Cartagena, Colombia.

- Status: Accepted

- Classification: H1 (SCIMAGO)

- **Juliana Alejandra Vergara Reyes, Maria Camila Martinez Ordoñez, Oscar Mauricio Caicedo Rendon. A benchmarking of the efficiency of supervised ML algorithms in the NFV traffic classification.** INGENIERÍA E INVESTIGACIÓN *journal*.

- Status: Submitted

- Classification: A1 (COLCIENCIAS)