Technical Quarterly Report –Jan 2020 - Mar 2020

BASIC PROGRAMMATIC DATA

Performer: University of Twente
Project: 628.001.031(NWO)
   Mapping Domain DNS DDoS Vulnerabilities to Improve Protection and Prevention
Period of Performance (base): December 1, 2018 – November 30, 2022

PROJECT PROGRESS

Progress Against Planned Objectives:
Paper on delegation inconsistency accepted and presented at PAM2020.
Paper on orphan and abandoned records submitted to WTMC2020
Attended at KISMET2020 workshop
Monthly conference calls between UT and CAIDA are taking place to discuss the project progress.

Technical Accomplishments this Period: none

Improvements to Prototypes this Period: none

Significant Changes to Technical Approach to Date: none

Deliverables: none

Technology Transition and Transfer this Period: none

Publications this Period:
- **When parents and children disagree: Diving into DNS delegation inconsistency (PAM2020)**
- **The Forgotten Side of DNS: Orphan and Abandoned Records (WTMC2020)**

Meetings and Presentations this Period: KISMET2020, PAM2020

Issues or Concerns: none

PROJECT PLANS

Planned Activities for Year 2:
- UT and CAIDA will study the network layer architecture of the DNS, in order to identify SPoF and aggregation points in the global DNS infrastructure.
- Using the data provided by OpenINTEL and combining it with other sources UT will identify possible weak points and future attacks.

Specific Objectives for Next Period:
UT will work on studying the baseline dynamic of the DNS in collaboration with UCSD
UT and CAIDA will work on studying the DNS Anycast deployment