

**Project ID: 2**  
**In-House**



**Progressive Education Society's**  
**Modern College of Engineering, Pune-411005**  
**Department of Computer Engineering**  
**B.E. Comp. - 2016-17**

**Project Title:** **Detection of DDoS Attack in Software Defined Network using Support Vector Machine, Entropy Based Discretization and Fuzzy C Means Clustering**

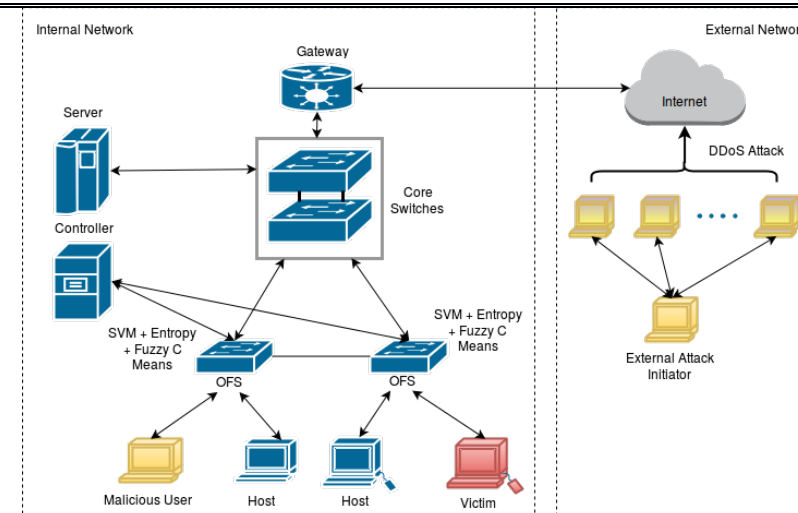
**Name of the Students:**  
1. Achyuth Rao  
2. Arun Pottekat  
3. Akib Shaikh  
4. Pranav Tale

**Objective:** To apprehend different types of DDoS attacks which can be launched on SDN and comparing the SVM, Entropy based discretization and Fuzzy C Means Clustering for detection of DDoS attack.

**Methodology:**

1. Software Defined Networking
2. Distributed Denial of Service Attack
3. Support Vector Machine
4. Entropy Based Discretization
5. Fuzzy C Means Clustering
6. Log and Metrics Monitoring
7. Network Application

**Architecture Diagram:**



**Testing :**

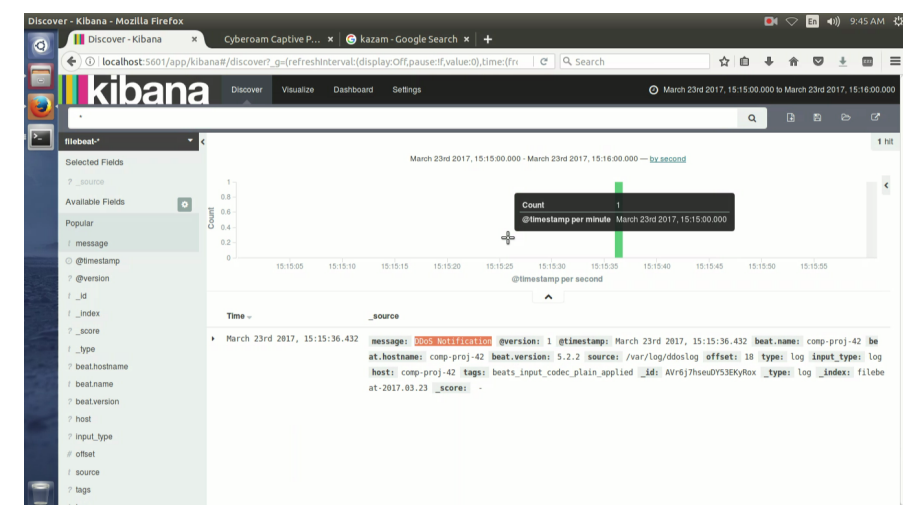
1. Time span between attack detection and alert generation.
2. Normal Network Traffic and attack is not detected.
3. Varying DDoS attack bandwidth.
4. Normal traffic on web server.

**Features:**

1. Run-time Detection of DDoS attack
2. Network Environment Specific Product
3. Automated Alert Mechanism
4. Suitable for all Software Defined Networks.
5. Open Source to encourage contribution and research.
6. SDN Controller Independent.

**Results:**

1. Attack Detected by SVM or Entropy application on SDN switch and alert generated.



**Conclusion:** Implementing a solution for DDoS detection in SDN environment using SVM, Entropy based Discretization and Fuzzy C Means clustering algorithms.

**Font details:**

All Bold and underline headings including project title, College and department details should be in ‘Normal – Times New Roman – 14 point)

Only Project ID is in ‘Normal – Times New Roman – 16 point)

All other text information must be in ‘Normal – Times New Roman – 12 point).

Text must with black color on white background.

**Note:**

Students should fit the Tables / graphs / charts / images in available size.

Variation in format (font / headings / details etc.) is not allowed.

Students may print this on **A3** size paper or on Flex board of same size.

Poster contents are planned to give overview of project at a glance and hence all details must be carefully finalized and then printed.

Copy of poster must be approved by project guide.

Poster must be displayed at the time of Project Exhibition 2K15 and at the time of University exam.

Soft copy / template is available with your guide and collect same from them.

Mr. Kunal Khadke

Project Coordinator