

PLANT RECOMMENDATION FOR BIO-FUEL

MAJOR PROJECT REPORT

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR

THE AWARD OF THE DEGREE OF

BACHELOR OF TECHNOLOGY

Information Technology



NOTE SECTION-A STUDENTS WILL TYPE PROF. RANJODH KAUR AND SECTION-B STUDENTS WILL TYPE

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(Sample)

Abstract

Packet Filtering firewalls can use a database of rules to decide which packets will be allowed to move in and out and from one network onto another. However with the increase in size of rule list, it's very hard to manage and validate the rules, which can also increase the cost of rule lookup and that may add significantly to latency. Packet filtering is the one of the major contemporary firewall design techniques. Implementation of such packet filter using Binary Decision Diagram (BDD) gives more advantages in terms of memory usage and look up time. In the case of the list-based packet filter firewall where rules are checked one by one for each incoming packet, the time taken to decide on a packet is proportional to the number of rules. The performance is improved with rule promotion but that is a slow and static kind of firewall implementation. In this work a BDD-based approach is presented which gives much better result in terms of number of comparisons or accesses the rule list make. This work presents the study, design and implementation of a packet filter firewall using binary decision diagram which provides faster processing of packets while maintaining the integrity of the original security policy. Results on large number of packets show that for most-accept packets, and for most- reject packets there is manifold reduction in such comparisons when BDD-based approach is used over list-based with promotion approach.

The overall performance of a firewall is crucial in enforcing and administrating security, especially when the network is under attack. The continuous growth of the Internet, coupled with the increasing sophistication of the attacks, is placing stringent demands on firewall performance. In this work, a traffic-aware optimization framework is described to improve the operational cost of firewalls. Based on this framework a set of tools are designed that inspect and analyze both multidimensional firewall rules and traffic logs and construct the optimal equivalent firewall rules based on the observed traffic characteristics. The current work is the first to use traffic characteristics in firewall optimization. To evaluate the performance of current approach, a large set of firewall rules and traffic logs from a local LAN or at tens of enterprise networks managed by a Tier-1 service provider are evaluated. The evaluated results find these approaches very effective. In particular, current work has achieved more than 10 fold performance improvement by using the proposed traffic-aware firewall optimization.

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Kashish

Gupta Muskan

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1 Introduction

1.1 Introduction to Project Page

1.2 Project Category (Internet based, Application or System Development, Research based, Industry Automation, Network or System Administration)

1.3 Objectives

Include 3-4 points of Objectives.

1. First Objective.
2. Second Objective.
3. Third Objective.

1.4 Problem Formulation

1.5 Identification/Reorganization of Need

1.6 Existing System

1.7 Proposed System

1.8 Unique Features of the System

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3.4 User Interface Design

3.5 Database Design

3.5.1 ER Diagrams

3.5.2 Normalization

3.5.3 Database Manipulation

3.5.4 Database Connection Controls and Strings

3.6 Methodology

It should not exceed 1 page. Research type, unit, methods, tools of data collection / analysis. Methodology will include the steps to be followed to achieve the objective of the project during the project development. See Figure 1 it shows the bitnami installation first step.



Figure 1: Example of the Image

Table 1 shows the Evaluation results.

Table 1: Evaluation Results

Sr. No	Data	Value
2	Date	20
3	Year	2020

4 Implementation, Testing, and Maintenance

- 4.1 Introduction to Languages, IDE's, Tools and Technologies used for Implementation
- 4.2 Coding standards of Language used
- 4.3 Project Scheduling using various tools such as PERT, GANTT charts, Open PROJ etc.
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5.1.1 Brief Description of Various Modules of the system

5.2 Snapshots of system with brief detail of each

5.3 Back Ends Representation (Database to be used)

5.3.1 Snapshots of Database Tables with brief description

6 Conclusion and Future Scope

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Note: It should be in IEEE Format

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