DNS, ITS CHALLENGES & SOLUTIONS – A BRIEF SURVEY

Megha Amlani
Indus University, Ahmedabad

Abstract: Space Name System is an Internet administration that makes an interpretation of area names into IP addresses since area name are alphabetic, they are simpler to recollect. However the Internet is truly taking into account IP addresses. Along these lines each time we utilize a space name, a DNS administration must make an interpretation of the name into the comparing IP address. The Domain Name System (DNS) is a progressive disseminated naming framework for PCs, administrations, or any asset associated with the Internet or a private system.

I. INTRODUCTION

We studied main five papers based on DNS regarding its architecture, issues, challenges , DNS using advanced encryption technique. So from that the basic introduction regarding DNS is,

The Internet is a worldwide arrangement of interconnected PC systems and utilizing the standard convention suite TCP/IP (Transmission Control Protocol/Internet Protocol) to serve the billions of clients around the world. TCP/IP was created in the mid 1980s and rapidly turned into the standard system convention. Web has unending number of utilizations which are utilized for looking valuable data and getting information without limit confinements. While searching, client required to enter the name of site, and therefore which is changed over to the IP location of the concerned web server. IP location is a numeric mark and it is the principal identifier on the Internet for its administrations and different Internet gadgets, yet for all intents and purposes it is impractical to recollect that every one of them physically. In this manner, IP addresses on the Internet are related to literary word called host name. The part of Domain Name System (DNS) is to change over the easy to understand space names to remarkable IP addresses The area name framework (DNS) is a dispersed database and gives name determination administration to the web clients.

DNS HIERARCHICAL TREE STRUCTURE：

The entire database is imagined as the modified tree with root hub at the top and invalid mark is saved for root hub. The root hub is top level hub meant by ".".The profundity of the tree is constrained to 127 levels (a farthest point which is not prone to reach). Every hub in the tree has a name connected with it. Name is a series of characters with most extreme estimation of 63. It vital that offspring of a hub have diverse names so that, uniqueness can be guaranteed. In any case, mark for offspring of various hubs might be same. In the event that a space name is ended with an invalid string then, it is called as Fully Qualified Domain Name (FQDN). DNS has three primary parts; Name space, Name server and resolver. The fig. Is indicated fig.1.

II. DOMAIN NAME DISPUTES AND ITS CATEGORIZATION

In today's digital world, where organizations are directed on Internet media, area names assume essential part, space names are utilized for advancing, promoting, leading organizations and for some more. As the quantity of space names begins developing the debate identified with it likewise began expanding quickly.

The grouping is troublesome yet at the same time in paper creator attempted to put some comparable debate in one classification

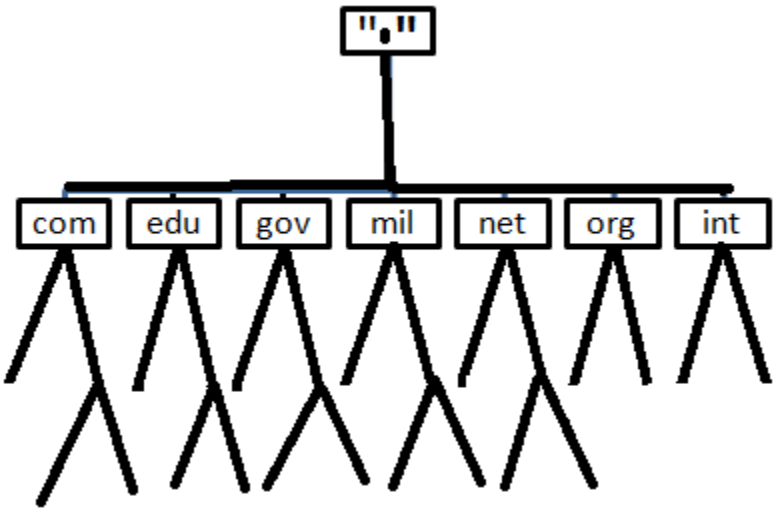

Fig. 1. DNS Architecture

They are:
1) Cybersquatting
2) Disputes based on legitimate claims
3) Legal Issues related to domain names

Then there are some challenges in securing the domain system:

DNS security threats
Two main security threats exist for DNS in the context of query/response transactions.
Attackers can
• Spoof authoritative name servers responding to DNS queries and alter DNS responses in transit through man-in-the-middle attacks, and,
• Alter the DNS responses stored in caching name servers.

III. CONCUSION

By this I infer that Domain Name System is an exceptionally helpful Internet benefit that makes an interpretation of area names into IP addresses.DNS have security challenges however it can be overcome.

REFERENCES

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3. Challenges in Securing the Domain Name System by Emerging Standard Editors: Tom Karygiannis, Rick Kuhn, Susan Landau.