

Next Generation Mobile ID for Generalized Mobility

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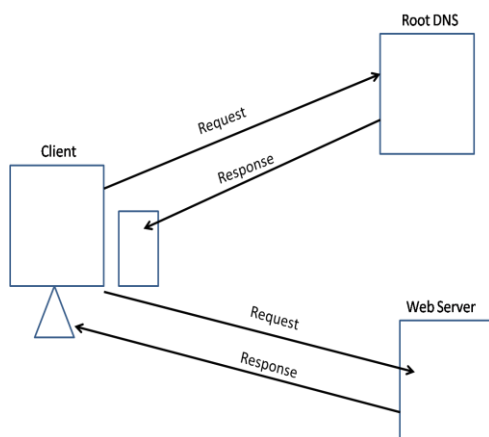
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Abstract— Now a day’s web servers were playing a key role. Every web application is directly communicates to the web server. A Client calls the web server via domain name system and it maps to the corresponding Web server IP address. These web servers were place in a single location, there is no server mobility. We find a problem on server mobility and eliminate this problem to maintain a mobile web server by using NGMID structure. We are replacing the mobile ID structure instead of IP address. Mobile ID structure is map to the domain name system. The NGMID having mobile ID prefixed with region ID, district ID, state ID, country ID. NGMID is assigned to the web server, that web server is placed anywhere in the world. The client request is automatically transmitted and reached to the current location of the web server. The web server response to the clients request and send appropriate response to the requested clients

Index Terms— Web servers, NGMID, DNS, IP address.

I. INTRODUCTION



Client sends a request through browser URL. It sends initially client’s system to client’s DNS server. The request is further transmitted from client DNS server to Root DNS server. Root DNS server having .com, .org, .in, .edu etc. It

maps the DNS to IP address of the client request. Once the DNS is mapped to IP address, the root DNS is send IP address to the Web server to requested clients. The client DNS server is directly communicate to the remote web server via IP address and then send response of the requested client.

In the static web servers, web server is placed in a single location there is no server mobility. In the generalized mobility by using mobile ID structure to maintain web server in anywhere in the world.

Client sends a request to their browser URL. If request is reached to the root DNS server, the root DNS server having NGMID structure, NGMID structure is assigned to the web server [1, 2]. Root DNS server sends a response to the web server MID to the requested client. Client uses the web server MID to send the request. The client request is reached to the current location at the web server and web server also sends appropriate response to the requested client.

By using NGMID structure [1, 2] the server is moving from one place to another. If the movement is change that updated location information is directly stored into the Root DNS server. If any user send a request to web server, root DNS server is send updated information of the requested client

II. GENERALIZED MOBILITY

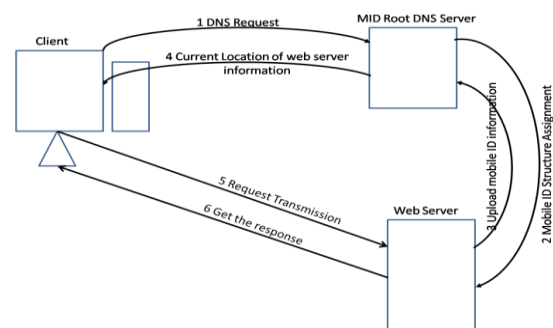


Fig. 2: Web Server Mobility

Generalized mobility means the device are not placed in a single location. It may be moved from one location to another location. If the location is updated automatically the update information is registered in home location register. If the root DNS server maintains many no. of web server domain names and mapped to the approximate IP address, here we can find out a problem on server mobility, we propose a solution to replace mobile ID structure instead of IP address. Mobile ID is fixed one which is not modified of the ID structure. A client finds a request to the DNS server. DNS server having NGMID structure [1, 2]. It maps to the appropriate web server, if the web server is moving from its home location. The prefixed part of the ID is modified and that information is stored in Root DNS server. If any client calls a web server in any time the root DNS is send the current location of the web server Address.

III. NEXT GENERATION MOBILE ID

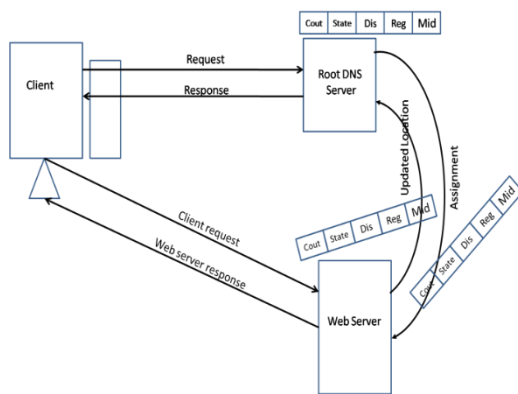


Fig. 3: Mobile ID Assignment

DNS assigns the mobile ID structure to web server. Mobile ID structure having mobile ID prefixed with region ID, District ID, State ID, and country ID. In this structure mobile ID is fixed one remaining all fields were dynamically change when the web server is moving from one place to another. If the web server is moving from one region to other region that part of modified data is stored in HLR in root DNS. If the web server is moving from one district to other district region the modified data is stored in HLR. If the web server is moving from one state to other state region that modified data is stored in HLR. If the web server is moving from complete outside of the country that modified ID structure is stored in HLR's Root DNS [1]. Each and every server location updation is immediately stored in root DNS. Any client wants to send a request to the DNS server. DNS server immediately sends a response to the request client and gives appropriate location address at the web server.

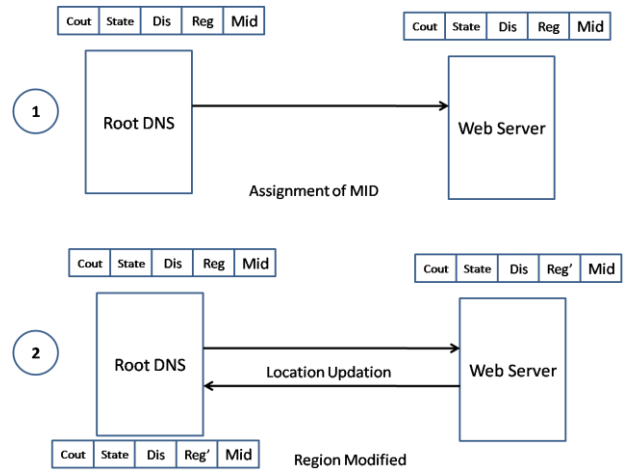


Fig.4: Web Server Updated Location

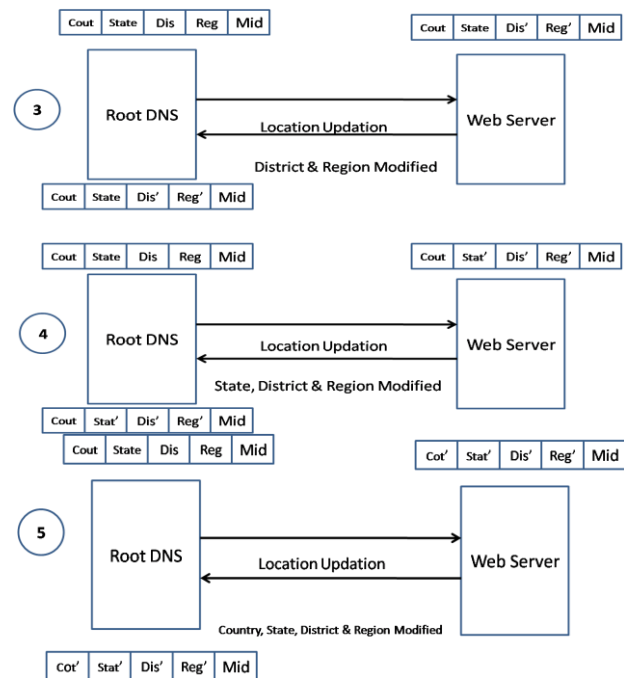


Fig. 5: Updated Location Information is Stored in Root DNS

IV. CONCLUSION

In this paper we propose a solution called as web server mobility by using Next Generation Mobile ID Structure, which is used to maintain the web server in anywhere in the world. In the next generation networks mobility management is playing a key role.

V. REFERENCES

- [1] S. Sai Kumar, Y.K. Sundara Krishna, "Mobility Management in NGN using NGNMID" IJDCST 8(1), ISSN: 2321-0257, November-2014.
- [2] S. Sai Kumar, Y.K. Sundara Krishna, "Mobile ID Structure for Next Generation Networks" IJSIMR 7(1), ISSN: 2347-307X, August-2014
- [3] Z uji Mao, Member, IEEE, and Christos Douligeris, Senior Member, IEEE "A Distributed Database Architecture for Global Roaming in Next-Generation Mobile Networks" 12(1): 149-159 (2004).
- [4] L.-R. Chen, T.-M. Chen, and C. Lee, ACM/Baltzer J. Mobile Netw. Applicat "Agent-based forwarding strategies for reducing location management cost in mobile networks", 6(2): 105-115 (2001).
- [5] F. Akyildiz, J. Mcnair, J. S. M. Ho, H. Uzunalioglu, and W. Wang, "Mobility management in next generation wireless systems", Proc. IEEE, 87: 1347-1384 (1999).
- [6] S. Dolev, D. K. Pradhan, and J. L. Welch, Comput. Commun., "Modified tree structure for location management in mobile environments", 19(4): 335-345 (1996).
- [7] ITU-T, "General overview of NGN", Recommendation Y.2001, Dec. 2004.
- [8] ITU-T, "General principles and general reference model for Next Generation Networks", Recommendation Y.2011, Oct. 2004.
- [9] ITU-T, "Functional requirements and architecture of the NGN", Recommendation Y.2012, Sep. 2006.