

Mobility Management for Next Generation Mobile ID

S. Sai Kumar¹, Dr. Y. K. Sundara Krishna²

¹Research Scholar, Dept. of CS, Krishna University, Machilipatnam

²Professor & HOD, Dept. of CS, Krishna University, Machilipatnam

¹Saikumar_vij@yahoo.com, ²yksk2010@gmail.com

Abstract: Web Server is used to run many applications. This web server were dynamically placed in different locations and accessing by mobile ID structure. Web server moves from one location to another location mobility management is applicable. The moment change of web servers from one location to another the web servers data also transferred. The web server data is transferred from old locations to new locations that location information is dynamically updated in mobile ID structure. Mobile ID structure having mobile ID followed by Region ID, District ID, State ID and country ID. Our proposing a new method called Mobility Management based on mobile ID structure.

Keywords: Mobile ID structure, web server, NGNMID, DNS, IP Address

1. INTRODUCTION

The proposed mobile id structure having the 5 parts which is taken as the nodes of mobile location updating database architecture. Each part having its (Fig 1) code like country code, state code, district code, region code and mobile number. These codes are used to generate a structure called as m-id structure. Here we are using each code is corresponding hierarchical tree node structure. This structure is used to identify the mobile terminal where it is present instantly. Converting the mid structure into binary format one series is generated, that is stored in database. Another structure is applying EX-OR functions to m-id to generate corresponding mask-id (cm-id) [1]. After performing the mask operation there is no change in between country code to region code the mobile terminal is present in same location. If the change is applicable at region level remaining bits are same only the difference is region bits. So that mobile is moving from one region to another region but not in the district. The same procedure is applicable to other codes like country, state and district (Fig 2). If the bit structure is changed from country to region. So that mobile is moving from one country to another country (Fig 3). The Mobile ID Structure is used to identify the mobile terminal at any place in the world. Data is dynamically changed at all levels. Only HLR is the dynamic database [1,2].

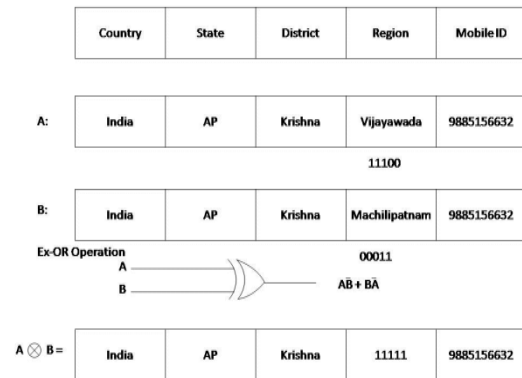


Fig1. Mobile ID Structure

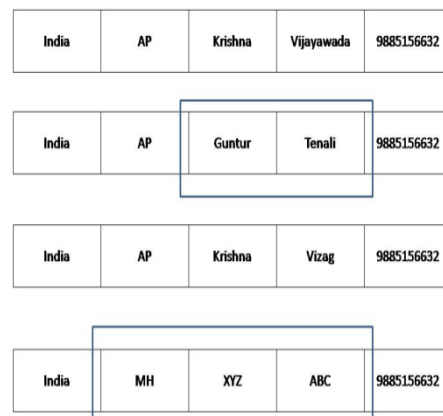


Fig2. Mobile Terminal changes its location Region, District and state.

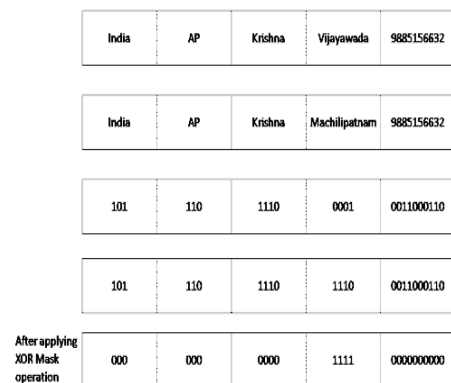
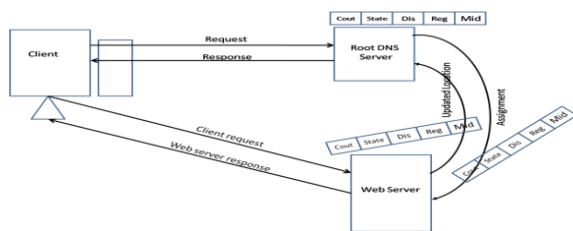
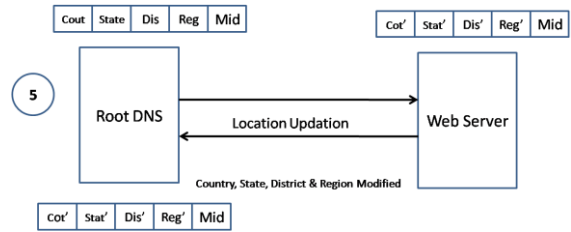
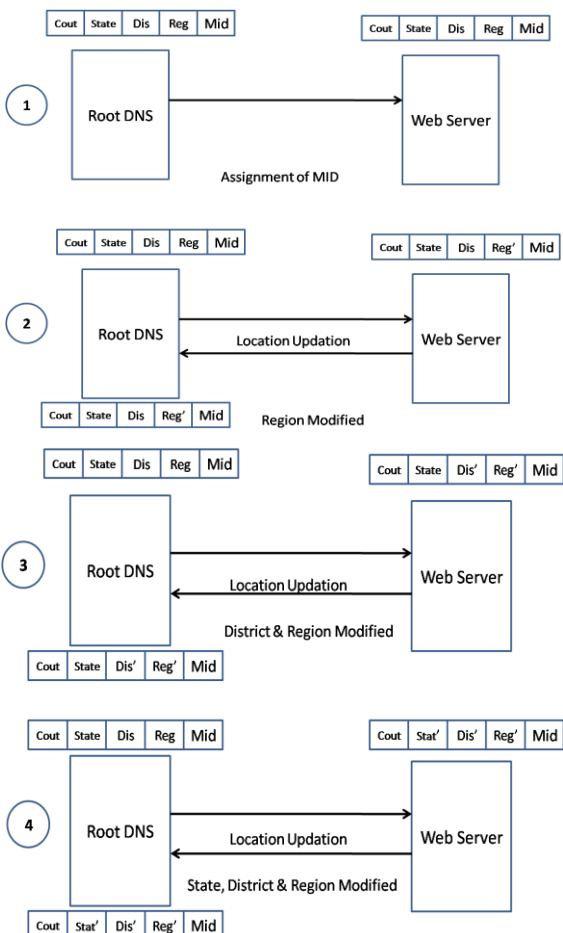


Fig3. Mobile Terminal enters into new country.

2. NEXT GENERATION MOBILE ID



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 [3]. 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. 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 give appropriate location address at the web server.



3. MOBILITY MANAGEMENT

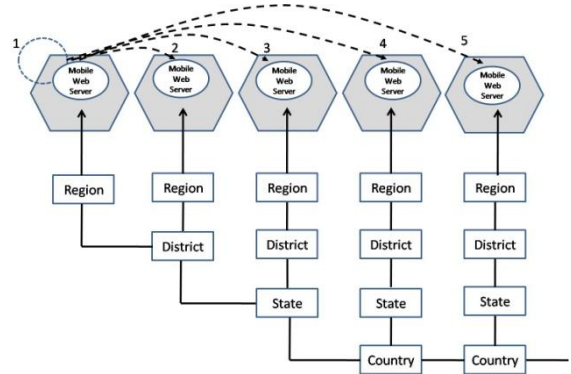


Fig4. Next Generation Mobile ID management

Types of Mobile ID management is:

1. Intra Region next generation mobile ID Management
2. Inter region Intra District next generation mobile ID Management
3. Inter District Intra State next generation mobile ID Management
4. Inter State Intra Country next generation mobile ID Management
5. Inter Country next generation mobile ID Management

(1) Intra Region Next Generation Mobile Id Management

NGN Mobility structure having mobile ID followed by Region ID, District ID, State ID and Country ID. Intra region mobile ID means if the web server or mobile station is located in one particular region. That region is placed in same district, same state and same country (Fig 4). If any narrow band interference is done, the region could change the carrier frequency. In this case mobile ID structure having mobile ID followed by region ID, district ID, State ID and country ID. This information is not modified.

Country ID	State ID	District ID	Region ID	Mobile ID
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(2) Inter Region Intra District Next Generation Mobile ID Management

If the web server is moving from one region place to other region place. The region ID is modified but both regions like old region and new region were

under the control of same district, same state and same country (Fig 4). If the web server moves from old region to new region the web server data is transformed from old region to new region via region ID. In the mobile ID structure region ID data is a modified remaining data fields like district, state and country IDs does not change.

Country ID	State ID	District ID	Region ID	Mobile ID
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(3) Inter District intra state next Generation Mobile ID Management

If the web server is moves from one district region to other district region. The region ID data and district ID data is modified. But both districts were under the control of same state and same country (Fig 4). If the web server moves from old district region to new district region the web server data is transferred from old district to new district via region ID. In the mobile ID structure region ID data field and District ID data field is modified by new value remaining state ID data field and country ID data field were not modified.

Country ID	State ID	District ID	Region ID	Mobile ID
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(4) Interstate Intra country next generation mobile ID Management

If the web server is moving from one state region to other state region. The region ID data, District ID data and state ID data is modified, but both old state ID, district ID, region ID and new state ID, District ID and region ID were under the control of same country (Fig 4). If the web server moves from old state to new state the web server data is transferred from old state to new state via region ID, district ID. In this case mobile ID structure having the region ID data field, district ID data field and state ID data field were modified by new value. Remaining country ID data field is not modified.

Country ID	State ID	District ID	Region ID	Mobile ID
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(5) Intra country next generation mobile ID Management

If the web server is moves form completely out of country range that is web server is located in new country. The region ID, District ID. State ID and country ID is modified. Both countries perform the handover functionality (Fig 4). If the web server moves form old country region to new country region the web server data is transferred from old region ID, District ID, state ID and country ID to new region ID, district ID state ID and country ID. In this case mobile ID structure having all fields like region ID, district ID, State ID and country ID were completely modified.

Country ID	State ID	District ID	Region ID	Mobile ID
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4. CONCLUSION

In this paper we propose a solution called Mobility Management by using mobile ID structure. Which is used to manage web server data dynamically. Mobility management is playing a key role. Mobility management used to find out the exact location of the web server.

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