ADAPTIVE REPRESENTATION OF IPv6 ADDRESS

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ABSTRACT

Introduction of IPv6 made drastic changes in IT Industry in recent years due to new innovation of Cloud computing. As IPv6 deployment increases, there will be a dramatic increase in the need to use IPv6 addresses and so many services running in Cloud computing will face problems associated with IPv6 addressing[6]: the notation is too long (39 bytes), there are too many variants of a single IPv6 address and a potential conflict may exist with conventional http_URL notation caused by the use of the colon (:).This paper proposes a new scheme to represent an IPv6 address with a shorter, more compact notation (26 bytes), without variants or conflicts with http_URL. The proposal is known as adaptive representation of IPv6 address with Base64 and uses the well-known period (or dot) as a group delimiter instead of the colon and non symbolic usage of the Base 64.The paper mainly concentrated on reducing the no of segments in the IPv6 address.

This is an Enhancement for Non Symbolic Representation of IPv6 address. Here we discussed regarding merits and demerits of other works that predate this paper have been reviewed and evaluated. Cloud computing, as a continuously emerging mainstream of network-based applications, is likely to be a forerunner in the use of IPv6 as the base protocol. As a result, Cloud computing will benefit most from the new, compact and user-friendly textual representation of IPv6 address proposed by this paper.

KEYWORDS: IPv6 Address, Cloud Computing, Base64, Colon Hexadecimal, Uni Cast Address, Text Conversions