

TOWARDS SELF-CONFIGURABLE OVERLAY NETWORKS

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ABSTRACT

The rapid growth of networks and services has introduces new complex environments. To cope with this complexity, IBM proposed autonomic computing. It allows systems to mange themselves instead of relying on IT professionals. On the other hand, overlay networks are getting a great attention due to the reliable and effective services that they provide. With the increased number of mobile users and services, overlay networks management is becoming more complex. Self-configuration has been used to solve overlay networks management complexity through creating a self-configured environment that can respond automatically and transparently to changing conditions. In this paper we provide a thorough survey of self-configuration systems and present their basic concepts, architectures, and challenges in addition to presenting a proposed self-configuration architecture for multimedia delivery services.

Index Terms— self-configuration, autonomic computing, overlay networks, management complexity.