

A PROPOSED SECURITY FRAMEWORK FOR NETWORK MANAGEMENT BASED ON COMMON OBJECT REQUEST BROKER ARCHITECTURE (CORBA) USING MOBILE AGENT

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ABSTRACT

In this paper we are going to introduce security framework for network management using mobile agent based on CORBA. Security is a major concern for any type of communication system. Here we are introducing Operational and Secure Environment that plays a vital role in network management domain for Mobile Agents. The architecture proposed by us consists of Security Interfacing (SI), Agent Communication Manager (ACM), Agent Manager Skelton, Portable Object Adaptor (POA), Appellative Service Manager, Object Implementation and ORB Interface. Functionality for all of them works together to achieve the task of secure network management using mobile agents. The architecture also supports the heterogeneous network management philosophy. The proposed security framework emphasises on secure network management adaptability. This framework besides communicating among devices, ensure the communication flow and provides interaction amongst them. The security feature is additionally augmented over the already existing architecture for network management based on CORBA.

KEYWORDS: Common Object Request Broker Architecture (CORBA), Security Interfacing (SI), Security Application Interfacing (SAI), Agent Communication Manager (ACM), Portable Object Adaptor (POA), Object Request Broker (ORB), Service Control Node (SCN), Service Switching Point (SSP)