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## **Incorporating .Active Certificates. in Public Key enabled Kerberos scheme**

### **Abstract**

The immutable nature of digital certificates limits the role of 'public key based Kerberos. schemes to authentication only and this role cannot be effectively extended to support authorization. The research work described in this document demonstrates that the role of a 'public key based Kerberos. scheme can be effectively extended to support authorization by replacing the conventional digital certificates used in such Kerberos scheme with .active certificates.. For this purpose, an existing public key enabled Kerberos scheme .PKDA. has been picked up and modifications are made in the PKDA protocol to incorporate active certificates. It is demonstrated by a 3-tier software system that the resultant .modified PKDA. scheme can be effectively used to provide authorization operations in addition to authentication. Moreover, in the proposed scheme there is no burden on both the server and the client to undertake the certificate validation process.