

## **P-13: Secured Cloud based Telemedicine**

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### **Introduction**

Telemedicine connects patient and specialized doctors remotely and also allows them to share the sensitive medical records. Irrespective of the mode of data exchange, all types of media are vulnerable to security and performance issues. Remote data exchange during an emergency situation should not be delayed and at the same time should not be altered. While transit, a single bit change could be interpreted differently at the other end. Hence telemedicine comes with all the challenges of performance and security issues. Delay, cost and scalability are the pressing performance factors whereas integrity, availability and accountability are the security issues need to be addressed. This paper lights up on security without compromising quality of service. Telemedicine is on track from standard PSTN, wireless Mobile phones and satellites. Secure Cloud based Telemedicine (SCT) uses Cloud which could free the people from administrative and accounting burdens.

### **Material and Methods**

Main objective of SCT is to provide, quality medicine to each and every corner of the rural places without revealing the sensitive medical records to an unauthorized user. Also focuses on protecting the deployed application and data storage from availability attacks. In the Reputation based Service for Cloud User Environment (RESCUE) architecture shown in figure 5, the request from the users will be accepted by a proxy server which performs entry level authentication. Man and machine are distinguished by their problem solving skill .the request initiator will be invited to do minor computations such as puzzle solving or factorization which do not consume much of the user time.After this phase, the bad traffic is trashed and others are given to a component called Resource Overload Monitor (ROM). Based on the volume of requests, ROM will detect the presence of flooding. Upon flood detection and resource overload, the flow routers at datacenter perform flow analysis and feed the result to the Coordinator Router (CR). The CR compares the inputs from all flow routers. If the requests with similar contents are valid requests, they are concluded to contribute Service Level flooding. Invalid requests contribute to Network Level Flooding. The details of discarded and accepted flows are communicated to the ROM and it will add or deduct credits of users accordingly.

### **Results**

SCT could achieve cost benefits and secure from unauthorized access. Regional language implementation could attract even a lay man and all human irrespective of their environment receive a quality medicines. Telemedicine can be promoted easily to all.

### **Discussion**

Rescue has to be tested in real-time for Telemedicine which has different skilled and even zero skilled people. Rescue could protect the server from attacks and improves the resource availability. Without availability telemedicine could not reach people. In future, this will be deployed in real time and the scenario will be tested. Upon successful deployment in a trial mode, this will be brought into action.

### **References**

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