

Secure Data sharing and searching at the edge of Cloud assisted internet of things

Abstract:

The Internet of things (IoT) is considered as a future internet that extends the connection of the internet to all kinds of real-world physical smart devices. Generally, the smart devices have limited resources. On the other hand, cloud resources have virtually unlimited storage and processing capabilities with scalability and on-demand accessibility anywhere. Thus with the help of the cloud, the IoT smart devices can relieve the burden of limited resources. For IoT applications, smart devices require low latency, high data rate, fast data access, and real-time data analytics/processing with decision-making and mobility support.

Existing system:

In all the existing schemes for data security, major security-oriented processing such as encryption, decryption, and access control mechanisms are handled by the user's device itself. In IoT, the resource-limited smart devices cannot handle these computation intensive operations because the security-oriented operations will increase the heavy computational burden.

Disadvantages:

1. Data security is not provided.
2. Application performance will be slow because of the computational burden.

Proposed system:

We propose a lightweight cryptographic scheme so that IoT smart devices can share data with others at the edge of cloud-assisted IoT wherein all security-oriented operations are offloaded to nearby edge servers. Furthermore, although initially we focus on data-sharing security, we also propose a data-searching scheme to search desired data/shared data by authorized users on

Further Details Contact: A Vinay 9030333433, 08772261612, 9014123891

#301, 303 & 304, 3rd Floor, AVR Buildings, Opp to SV Music College, Balaji Colony, Tirupati - 515702

Email: info@takeoffprojects.com | www.takeoffprojects.com

storage where all data are in encrypted form. Finally, security and performance analysis shows that our proposed scheme is efficient and reduces the computation and communication overhead of all entities that are used in our scheme.

Advantages:

1. Data security has been improved.
2. Application performance improved by reducing the communication overhead.

SYSTEM REQUIREMENTS

H/W System Configuration:-

- Processor - Pentium –III
- RAM - 256 MB (min)
- Hard Disk - 20 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

S/W System Configuration:-

- Operating System : Windows95/98/2000/XP
- Application Server : Tomcat5.0/6.X
- Front End : HTML, Jsp
- Scripts : JavaScript.
- Server side Script : Java Server Pages.
- Database : MySQL 5.0
- Database Connectivity : JDBC