BLOCKCHAIN

Blockchain is a series of immutable records that are managed by a cluster of computers. Blockchain network has a decentralized authority and hence can be tracked and traced by the owner of the data but cannot be altered by anyone.

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Intent of the Project

We can use the more secure methods of blockchain for the army as they comprise the nation's guard and they need very high-level security even for their normal details to make sure they are not exploited. To make sure that the data of the army personnel not be exploited we have to use the peer-to-peer hash review system and the 256bit encryption used in blockchain to store that respected data. Each personnel gets a digital private key and a public key. The access to the private key must be limited to the individual and the public key to the departments like finance housing medical etc. The public key access makes sure that the data is to only be seen by the respective department and cannot be of access to anyone else and cannot be tampered with even by the public key holder.

Solution

The personnel must be provided with a decentralized application software system that provides each person with a Private key and a public key that needs to be shared with the respective authorities. The application will itself be 256bit SHA(Secure Hash Algorithm) encrypted and will require a highly secure password and biometrics to access. This method will ensure the peer-to-peer hash checking remains in place which provides extensive security methods that cannot be hacked. The application will use a secure database using NoSQL like a MongoDB Atlas and Node.js for developmental purposes. The services like transactions medical reports personal info etc will be consistent in their performance. It will be further secured by building it on a Linux Os. The Application will be a way for the personnel to be able to use blockchain technology for a more assured way of transferring and receiving data.

Conclusion

The immutability and peer-to-peer characteristics of blockchain mean that a successful hack would require enormous quantities of computing power to access thousands of user computers to manipulate the data. This inherent security lends itself to some critical applications within defense and hence it will ensure the data's safety in turn securing the army itself.