

Proposal No. 03

(Proposal details for the R&D scheme of USOF)

Subject: Proposal for Blockchain based solution for mobile theft prevention

a)	Description of Product / Concept/Idea (in detail)	Usage of Block-Chain Technology to combat theft of smart phones & IOT Devices with enhanced sensitive data protection.
b)	Objective	<p>Cellular and 5G networks have communication devices (e.g., smartphones, IOT equipment etc.), which are identified by their unique identification number (IMEI number in case of smart phones, MAC address for IOT devices etc). These devices are prone to many threats and vulnerabilities as highlighted below.</p> <p>1) Theft of devices. 2) Multiple devices ,Single Identity (Risk to security for network operators) 3) No Data Protection.</p> <p>There exist some legacy solutions in the market but their efficiency staggers due to the following reasons :</p> <p>1) Network blocking of devices does not work in real time. 2) Due to "Multiple Devices – Single Identity", Operator Networks' as well as real device owners' security is compromised. 3) 'Single trusted domain' because of Centralized Architecture which is less secure in untrusted domains.</p> <p>There must exist a solution which overcomes the above shortcomings and should have following KPIs :</p> <p>1) Blocking of devices from Network in Real Time. 2) Blocking of devices from using any network service (e.g. Wifi in cafe shops ,trains, etc.) in real time. 3) Sensitive data deletion 4) Single Device – Single Identity – Single User. 5) Service Innovation (e.g. Second hand product seller platforms can track device authenticity)</p> <p>As briefed in ITU abstract (attached with proposal), block chain is one of the best contender technologies to meet above KPIs.</p>
c)	Key deliverables	<p>1. Application for end to end Asset Tracking. 2. Blocking of phones and IOT devices on any network. 3. Sensitive data protection. 4. Revenue Generation Model for Third party interface</p>
d)	How did the idea originate	Defense has some use cases of resource management using block chain technology (CPDS_2020_ADB.pdf). Some research on block chain technology led me to discover that there are potential use cases of block chain technology in 5G and IOT.

Format of Response

Companies / organizations / institutions / individuals developing enabling technologies / modules / components / subsystems / products are required to respond in the format provided in Annexure-A, on the DOT website ([link address provided- refer "format of response"](#))