

Secure Cloud-Based IoT Platform

ID: 2016-040

Executive Statement:

A revolutionary platform enabling secure, cloud-based connectivity for IoT devices behind NATs and firewalls.

Technology Overview:

This invention outlines a secure cloud-based platform for Internet of Things (IoT) devices, facilitating secure two-way communication through a cloud gateway. It incorporates a VPN and web server for secure interactions between IoT devices and the server, supporting both private and public APIs. Utilizing open source software, this platform is designed to ensure IoT devices are safeguarded against unauthorized access, leveraging an AuthKey system for secure API requests and employing ElasticSearch for monitoring and security analytics.

Key Advantages:

- Enhanced security for IoT devices
- IoT devices operating behind NATs and firewalls
- Supports secure two-way communication between IoT devices and cloud servers
- Leverages open source software for independence and flexibility
- Integration with web service platforms like Tasker and IFTTT
- Advanced monitoring and security analytics through Elastic Search
- Structured process for secure IoT device registration

Problems Addressed:

- Unauthorized access and control of IoT devices
- Secure communication challenges for devices behind NATs and firewalls
- Lack of flexible, secure integration with web services and APIs
- Difficulty in monitoring and analyzing security and interaction data for IoT devices

Market Applications:

- Secure Io
- T device connectivity for smart homes and businesses
- Cloud-based Io
- T platforms requiring robust security measures
- Io
- T infrastructure development with enhanced security analytics
- Secure integration services for Io
- T devices with web and cloud applications