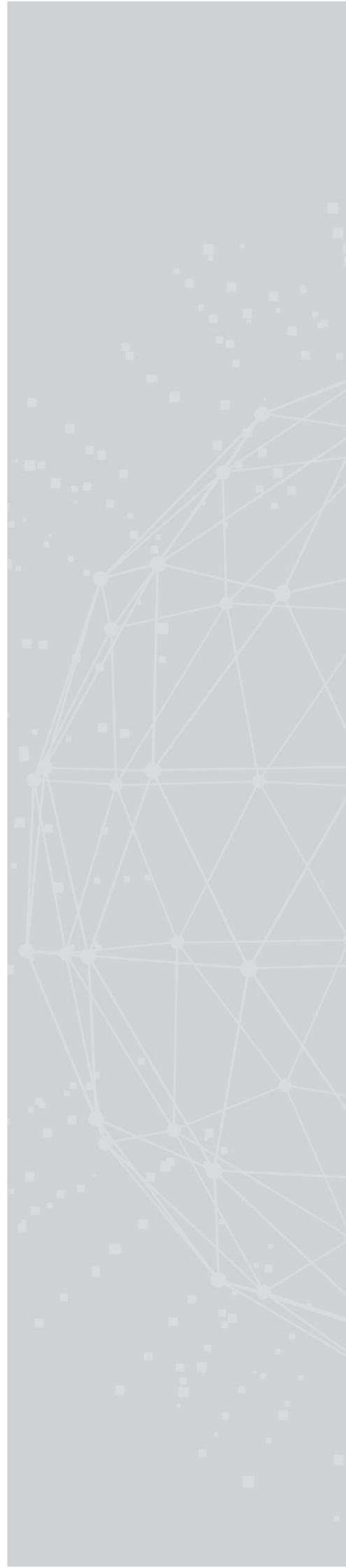# IoT—Things Just Got Serious—

A Business Perspective

White Paper

See. Control. Secure.

IoT—Things Just Got Serious…

Security concerns are the number one reason that many enterprises still avoid making IoT a significant part of their business operations. Despite this, IoT devices are proliferating exponentially and, together, this provides a significant opportunity for CSPs to increase their revenue.

In 2015, the number of cellular IoT devices was 0.4 billion and it is projected to rise to 1.5 billion by 2022[1] While the concept of IoT has been around for several decades, only in the last five years have Mobile Network Operators (MNOs) begun to include Machine-to-Machine (M2M) connectivity solutions in their service portfolios. To meet this growing demand, CSPs are investing significant capital into 5G technology to scale IoT deployments. Total worldwide spending on IoT rose from 156 billion USD in 2015 to 285 billion USD in 2017, and the growth is expected to continue steadily.

However, many IoT services produce relatively low returns per connected device. Low bandwidth devices, which are about 80% of the overall market, will generate in the range of $1-5 per device per month for connectivity as compared to $10-25 a month for high bandwidth devices. Even with a global addressable market of 1.5 billion mobile devices in 2022, the returns on connectivity alone are, and will remain, low, compared to the investment.

CSPs are looking for additional services to offer with IoT to increase revenue—some have indicated that they will provide IoT end-to-end services in sectors such as supply chain management, fleet management, asset tracking, connected cars, and healthcare. These approaches require a high level of expertise in each of these domains. Building this expertise can involve a considerable effort typically achieved through partnerships and acquisitions and is feasible primarily for large operators.

IoT security is an additional option to generate incremental business that is in line with existing CSP core competencies. It addresses all types of IoT deployments and adds value to both connectivity and end-to-end IoT services. Allot IoTSecure enables CSPs to deliver network-based IoT security value-added services to enterprise customers, while also increasing operational efficiencies.
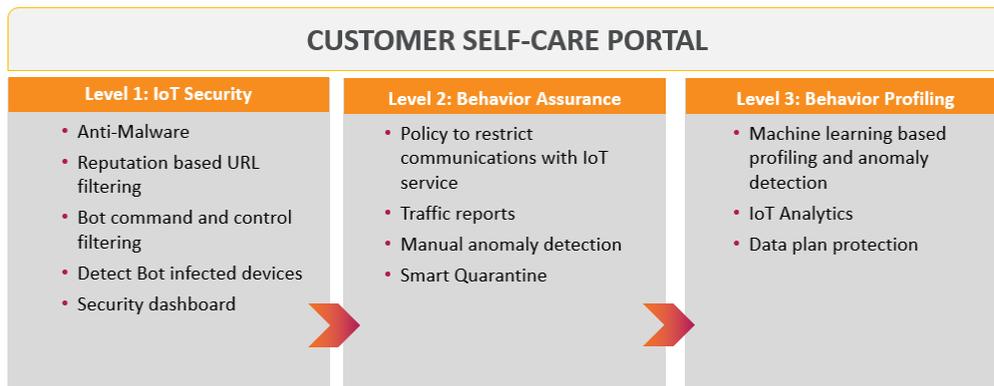
Allot IoTSecure

IoTSecure provides end-to-end visibility and control of IoT deployments and enables security value-added services. This system delivers service-agnostic carrier-class security, behavior analysis, and traffic intelligence and control. It enables CPSs' enterprise customers to consume and manage services through a Customer Management portal. By using the Allot IoTSecure solution, CSPs can increase their revenue by 15-20%, depending on the services selected.

---

[1] https://www.ericsson.com/en/mobility-report/internet-of-things-forecast

allot
See. Control. Secure.

IoTSecure provides CSP enterprise clients with the following levels of service:

CUSTOMER SELF-CARE PORTAL

Level 1: IoT Security	Level 2: Behavior Assurance	Level 3: Behavior Profiling
• Anti-Malware • Reputation based URL filtering • Bot command and control filtering • Detect Bot infected devices • Security dashboard	• Policy to restrict communications with IoT service • Traffic reports • Manual anomaly detection • Smart Quarantine	• Machine learning based profiling and anomaly detection • IoT Analytics • Data plan protection

IoTSecure Level 1 services provide revenue increases of between 10-15% across low-to-high bandwidth devices, while Levels 2 and 3 provide an increased revenue return of 20-25% across that same range. The service levels include:

• **IoT Security**: A network-based security solution that provides in-line protection against malware and botnets, blocks communications with bot command and control servers and other servers based on reputation, and identifies bot-infected endpoints through behavioral analysis.

• **Behavior Assurance:** Since most IoT devices were designed for a specific service, their communication patterns can typically be defined. IoTSecure provides the enterprise with the ability to define policies that control the communications between the IoT devices to authorized servers, protocols, and bandwidth control.

• **Behavior Profiling:** An artificial-intelligence approach to IoT analytics that profiles the behavior of devices or groups of devices and applies anomaly detection principles. Anomaly detection can identify compromised or malfunctioning IoT devices and operates in conjunction with IoT analytics, support data plan protection, troubleshooting, and planning.

The Benefits

Allot's IoTSecure solution provides enhanced IoT value-added services and IoT operational efficiencies, both of which enhance monetization. The benefits of Allot IoT secure include the following VAS and operational challenges and responses:

IoT VAS Challenges & Response:

• **Revenue Generator:** IoTSecure can generate an additional 15-25% revenue on top of connectivity charges.

• **Service Differentiator:** Introduces security as a differentiating competitive advantage.

• **Use-case Agnostic:** IoTSecure is applicable to any IoT service and is aligned with core CSP business.

• **Domain expertise:** IoTSecure is a network-based service that relies on existing skills in the domain of network operations and security, all within the core expertise of CSPs.

allot
See. Control. Secure.

IoTSecure also provides centralized protection and efficient management tools for the IoT infrastructure, and together with IoT analytics it provides the service provider with operational efficiencies that address the following challenges of large scale IoT deployments:

- **IoT Infrastructure Attacks:** Neutralized through bi-directional DDoS mitigation and botnet protection.

- **Capacity Planning and Operational Scaling:** Device and application-aware IoT analytics assist in troubleshooting, informed planning, and optimization.

- **IoT Data Plan Misuse:** Mitigated by IoT behavior profiling for data plan abuse and anomaly detection.

IoTSecure enables you to provide your enterprise customers with both operational and business benefits. In addition, this solution operates seamlessly regardless of IoT-specific use cases. Allot's IoTSecure is based on field-proven products and innovative technologies providing behavior profiling, behavior assurance, and network-based security—all packaged into one comprehensive solution.

*With a track record built on proven success with the world's largest deployed network-based security service, Allot's **IoTSecure** sets a new standard for IoT cybersecurity protection within the enterprise business sector.*

Contact sales@allot.com today to set up a personal consultation and demonstration.

IoT—Things Just Got Serious…

This page left intentionally blank

allot
See. Control. Secure.