

## Allot – Q4 Update

March 7<sup>th</sup>, 2021

Stock Exchange  
**TASE**

23% increase in 2020 revenue YoY; COVID19 has had a tremendous impact on the network-security industry; target price increase to NIS 60.6



Symbol  
**ALLT**

**Allot consistently meets our progress expectations and exceeds them; we update our target equity based on the company's progress and achievements. We update Allot's stock price target to NIS 60.6.**



Sector  
**Technology**

Allot generates revenues from two sources: (1) sales of Network Intelligence Solutions which show communication service providers (CSPs) exactly what is happening on their networks allowing them to control network traffic for a high quality experience for subscribers (2) sales of Network-based Security solutions, such as security as a value added service (SecaaS) that communication service providers can offer to their subscribers in order to protect them from cyber threats. These offerings solve major problems for communication service providers such as creating new streams of monthly recurring revenue to deal with serious pricing pressures and allow providers to navigate the new 5G ecosystem successfully.



Sub-sector  
**Software/Internet**



Stock price target  
**NIS 60.6**



Closing price  
**NIS 47.5**

**Exploring the fourth quarter and recent months of 2021 indicates the following:**

- Fourth quarter revenues were \$39.1 million, up 28% year-over-year;
- Full year revenues were \$135.9 million, up 23% year-over-year;
- Gross margin on a non-GAAP basis increased in 2020 to 71% compared to 70% in 2019;
- MAR \*(maximum annual revenue potential of concluded transactions) reported for 2020 reached \$192 million;
- Non-GAAP operating profit for Q4 2020 was \$0.5 million compared to a loss of \$1.8 million in Q4 2019;
- Management expects 2021 revenues to grow to between \$145-150 million; additional recurring security deals to be executed in 2021 with MAR expected to exceed \$180 million and recurring security revenues in 2021 to be between \$6 -\$8 million, and expected to exceed \$25 million in 2022.



Market cap  
**1,681 Mn NIS**



No. of shares  
**35.4 Mn**



Average Daily  
Trading Volume  
**2,795 stocks**



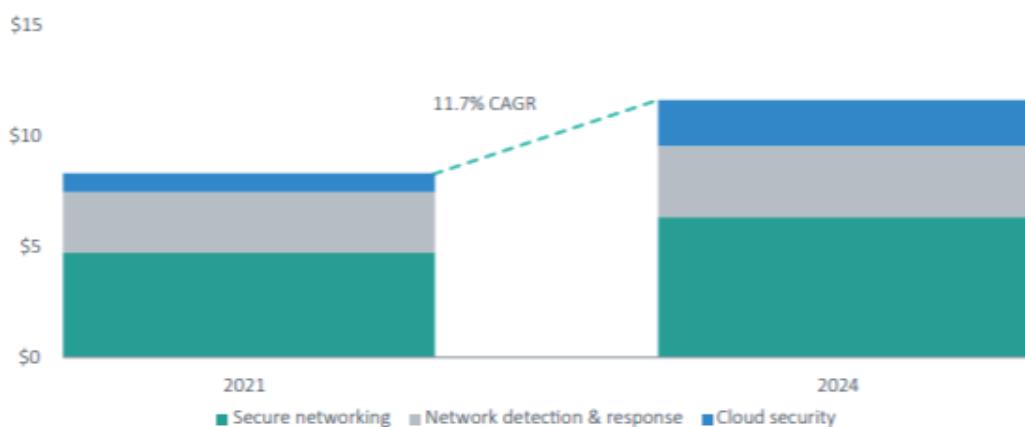
Stock Performance  
(3 months)  
**42%**

We value **Allot**'s equity at NIS 2.1B; price target to be in the range of NIS 56.6 to NIS 65.6 with a mean of NIS 60.6.

Year	Revenues (000 NIS)	Operating profit (000 NIS)
2020A	135,922	95,840
2021E	164,542	116,020
2022E	207,160	146,071



Information security (infosec) refers to technology and services that protect enterprises from digital threats to business operations. We estimate the infosec vertical to have reached \$148.2 billion in 2020 as the industry has been able to increase spending during the pandemic, and we expect low double-digit growth to resume in 2021. Looking at the network security market, CAGR is higher:



**Infosec momentum is on the rise** also with VC deal activity set a record in 2020 with \$9.9 billion invested across 626 deals, a 16.1% increase in deal value despite an 8.6% decline in deal count. VC deal value was led by fraud prevention, data privacy & compliance, managed security services, and endpoint security, which all raised over \$700 million in funding in 2020.

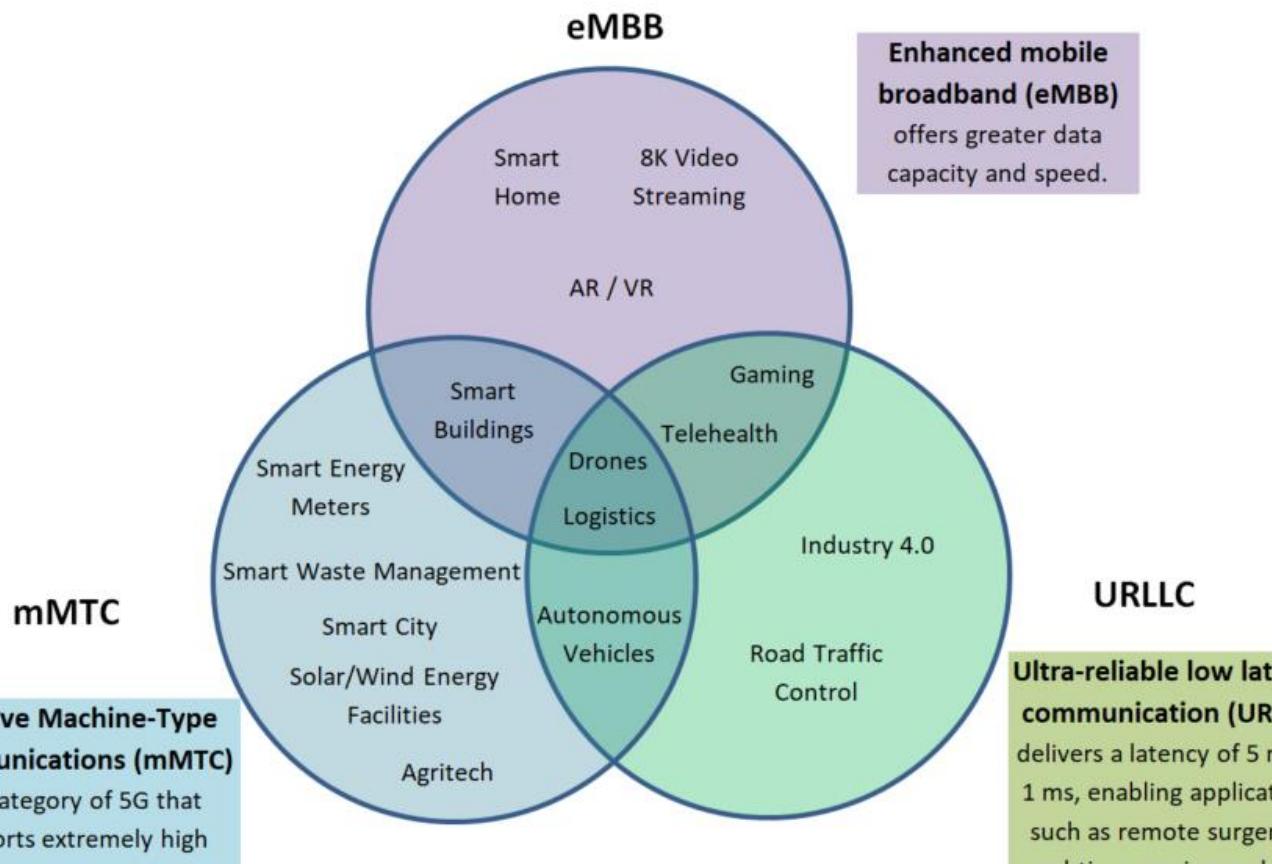
Read our annual initiation report [here](#) in order to get a comprehensive understanding of Allot's executive investment thesis, offering, market, competition, and growth drivers.

## Executive Investment Thesis

Today's forms of communication have made the world into a very small place. We can easily communicate with our families, friends, and colleagues, on the other side of the world, **via our cellular network**, to message them about the latest episode of our favorite Netflix show, streamed **via our home WiFi network**. Because these networks have become such a vital part of our lives they have become a vital asset for communication service providers (CSPs) that supply us with cellular, internet, and other services.

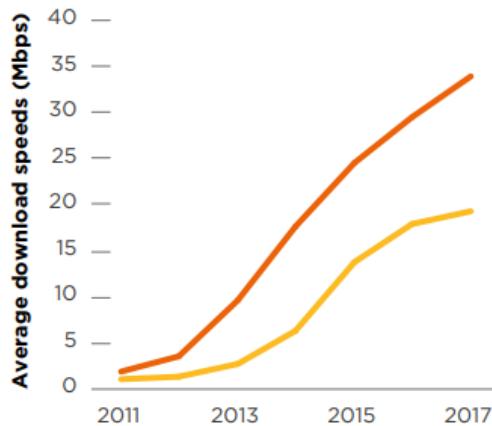
The problem is that as our **networks become more advanced to meet our expectations**, by supplying us with capabilities such as 8K video streaming, gaming, virtual reality, ultra-reliable low latency/low bandwidth V2X collision avoidance systems and other machine-to-machine communications on a massive scale, **we expect to pay less to use them**. That is, network costs are rising for CSPs but Average Revenue per User (ARPU) is not.

## New Applications Empowered by 5G

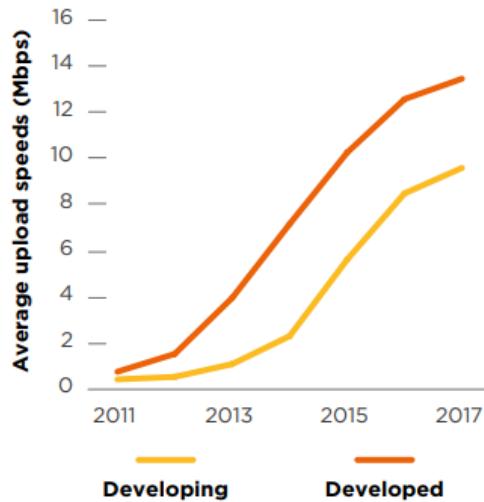


From the figures below it is evident that mobile networks have given users increasingly better download and upload speed as well as significantly improved latency but all the while have drastically dropped prices (both in developed and developing countries).

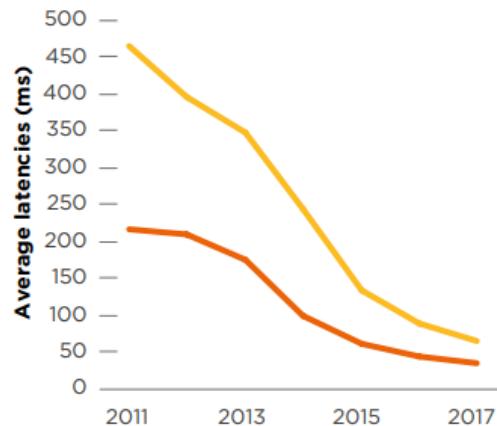
MOBILE DOWNLOAD SPEED IMPROVEMENTS, 2011-2017



MOBILE UPLOAD SPEED IMPROVEMENTS, 2011-2017



LATENCY IMPROVEMENTS, 2011-2017



AVERAGE PRICE TRENDS, 2011-2017



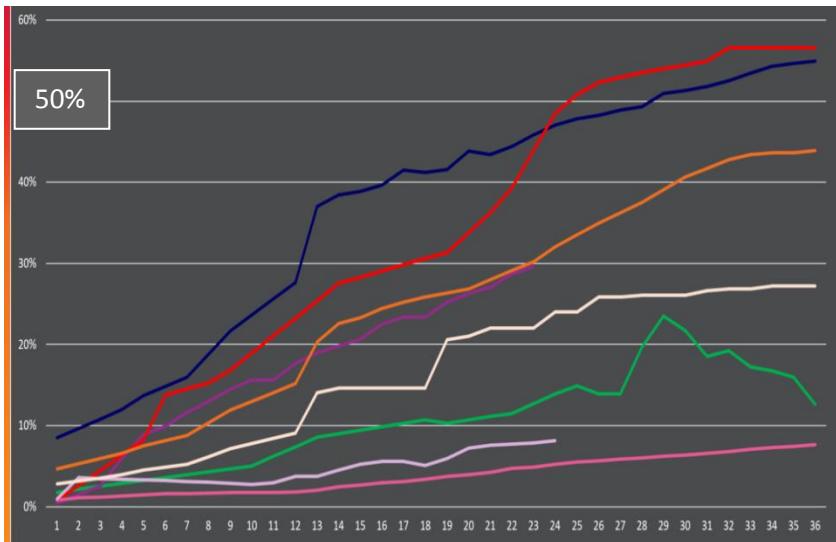
The second major problem that arises is that as more and more devices utilize CSP networks, there are more and more targets for cyber-attacks. Imagine a hacker infecting two million IoT devices and using them to launch a massive DDoS attack on vital city infrastructure.

The new Mobile Edge Computing (MEC) architecture of 5G networks only exacerbates this problem. Edge computing is a term to describe the migration of computing processes from a centralized cloud at the center of a network to a distributed cloud with nodes at the edge of the network, meaning, as close to the end user as possible. The edge computing nodes could be a local data center or even the user's device itself. The bottom-line is that there are many more points for attackers to target in the new 5G architecture.

So why are our networks migrating to a distributed architecture? This migration from a centralized computing entity to many small distributed computing entities on the edge of the network is happening for two reasons. The first is that as more and more devices connect to networks it becomes more expensive to support their needed capacity to communicate with one central cloud as opposed to many local distributed cloud entities. The second is that more and more applications are requiring ultra-low latency and this is significantly easier to achieve with computing nodes closer to the end user at the edge of the network.

The two major problems above- 1) **increasing data capacity pressure with increasing pricing pressure** and 2) **increased attack surface** are exactly the issues that Allot solves.

**1) Increased Attack Surface-** Allot attempts to turn the security problem into an opportunity for CSPs by creating an added source of revenue for them with their **Network Security** Solutions. If we think about it, we quickly realize that our homes have become mini IT organizations with at least 10 connected devices that surround us and that we surrender our most intimate details to. Because Allot's solution is network based (it is located on the CSP network) and not end-point based (the Company also provides end-point security where necessary) users do not have to download or install anything. They are automatically protected.



The graph to the left shows the subscriber penetration rates for Allot's security solution over months for different CSPs. We can see that gradually Allot's Network Security solution is achieving penetration rates of over 50% of subscribers of some cellular CSPs in certain geographies. Should CSPs communicate the need for this solution clearly and awareness develop with end users, the revenue potential for Allot is significant. Vodafone's (one of the largest Tier 1 CSPs in the world) CEO Vittorio Colao stated, "*Our Secure Net product (provided by Allot) is already generating 160 million in revenue... we have been building quietly and we will leverage on.*"

Allot has made a strategic decision to focus its marketing and sales efforts on Network-based Security reaching out to what seems like the blue ocean of cyber security. We expect Allot to show a significant increase in revenues over the next 5 years due to the high growth expected in this sector and importantly due to the company's transition from a

CAPEX to a Rev-Share business model. The solution is offered in a SecaaS model and for every new CSP end user (subscriber) that chooses to secure their online experience, the CSP and Allot share the monthly user fee. **With each CSP servicing millions of subscribers the revenue potential of this value added service is great both for the CSP and Allot.** Allot is constantly onboarding Tier 1 and 2 telecom customers that offer Allot's security value added service to end users.

Allot's security solutions are also inherently designed to work well with the new 5G distributed architecture model. With the transition to mobile edge computing, large centralized computing clouds are replaced by smaller ones at the edge which are therefore highly sensitive to changes in bandwidth capacity. In relation to many of its competitors, Allot's solution sits inline with these edge computing nodes, meaning it does not take from their bandwidth and slow the network. Solutions such as those provided by Arbor/Netscout for example, send suspicious data to a scrubbing center which both takes up network capacity and costs more because of increased bandwidth for the CSP. Providing security solutions designed for 5G is critical for competing in this new market space. Thus Allot is well suited to address the challenges of 5G architecture and sees possible additional business offering focused securing the Network Infrastructure of the CSP itself from both inbound and "home-generated" attacks.

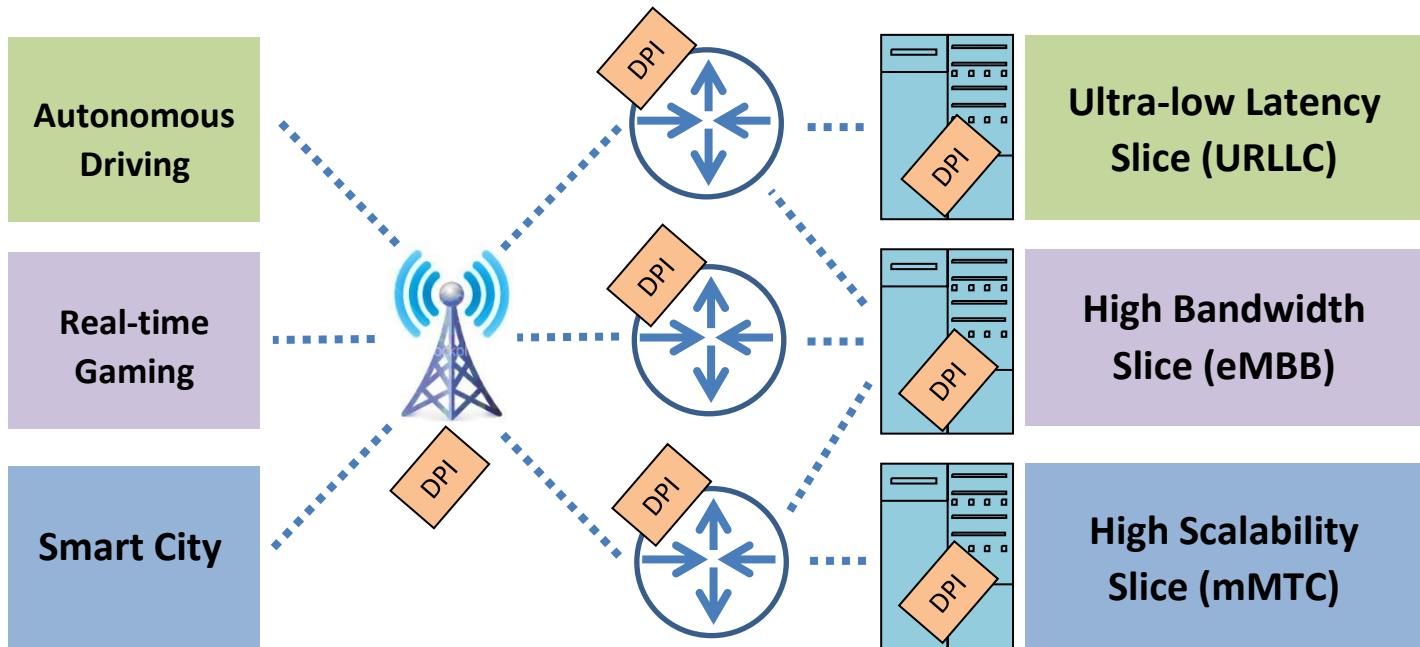
**2) Increasing Data Capacity Pressure with Increasing Pricing Pressure-** One of the cardinal challenges for CSPs is dealing with decreasing profitability in this new generation of communication networks. Tailored offerings have become crucial to providing added value to basic connectivity. In order to provide tailored services, CSPs need to have high resolution **Network Intelligence termed Network Visibility or Deep Packet Inspection (DPI)** in order to understand what data is flowing through their pipes and how they can capitalize on it. The higher the level of DPI sophistication, the more detailed a picture the CSP can obtain of the data flowing through their network pipes and in turn they are better able to act on this insight.

Allot's DPI solution provides insight that allows CSPs to get more out of their existing network bandwidth without intensive CAPEX investment from the part of CSPs. That is, simple broadband pipes, where data flows, become smart and sophisticated allowing CSPs to see what type of data is flowing and to adapt to points of congestion. By more efficiently using their existing infrastructure, CSPs are able to save significantly on CAPEX. In addition to this major benefit, Allot's solution also allows CSPs to offer a plethora of new services to customers such as parental controls, monetization (real-time data package offers based on user behavior), and most importantly, high Quality of Experience (QoE) to ensure that customers remain happy with their CSP no matter what their user behavior or application use case is.

In 5G, Network Intelligence or DPI are essential to meeting user needs. 5G by its very nature was designed to handle a wide variety of applications shown on the Venn diagram above. Each of these applications has unique requirements and therefore it is necessary for the data flowing through the network to be identified and categorized in order to meet these requirements. For example, data to stream an 8K video requires more bandwidth while data to perform a remote surgery requires ultra-low latency, and data to support smart utility meters requires high scalability but very little bandwidth, while data to support mobile banking requires high levels of security. The allocation of network resources to support these different market segments is known as 5G Network Slicing. Network slicing virtually slices networks from the core to the RAN (meaning throughout all parts of the network) in order to allocate resources for specific use cases. 5G Network slicing utilizes network functions virtualization (NFV) and software defined networking (SDN) to create different virtual networks on physical infrastructure. Network visibility or DPI is critical to 5G slicing to ensure Quality of

Experience (QoE) analysis and management. This is also true from a security perspective; DPI allows identifying suspicious traffic patterns that could signal DDoS attacks or malware.

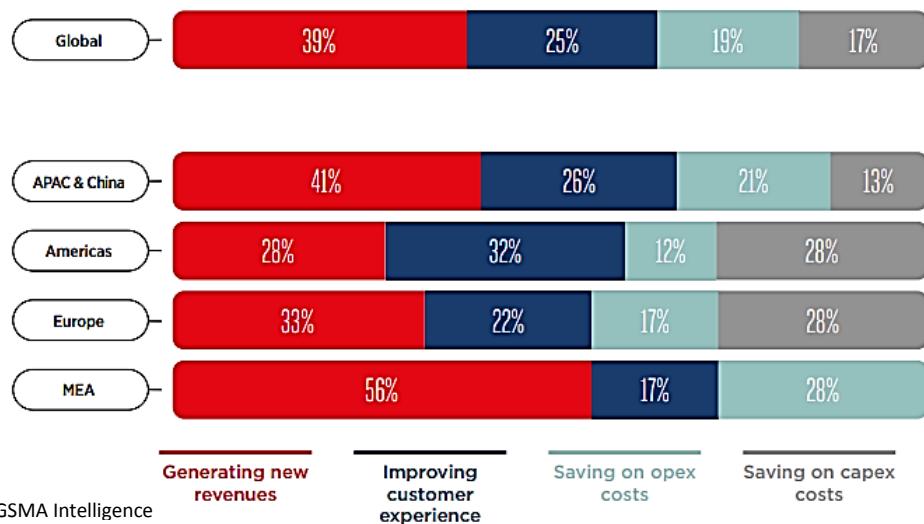
## 5G Network Slicing



In conclusion, Allot's DPI solution allows CSPs to 1) manage network traffic in order to relieve congestion and minimize CAPEX expenditure 2) ensure high QoE for users 3) enable policy creation and charging control such as parental controls and data usage limits 4) secure network traffic as an added revenue source for CSPs.

**Revenue generation and customer experience prioritised over cost-cutting as the primary stimulus for network transformation**

What is the primary goal driving your network transformation strategy? (% of respondents)



Source: GSMA Intelligence

In addition to 5G there are a number of other trends driving adoption of Network Intelligence and Network Security Solutions. These include the heightened use of networks during the COVID pandemic and the ever progressing regulatory landscape. **Under the 3GPP 5G standard it is mandatory for CSPs to have DPI capabilities.** Other regulatory policies strengthening Allot's offering include examples such as the UK introducing a law requiring all visitors of adult content websites to prove that they are 18 or over. This was done to reduce the risk of children accessing or stumbling into adult content and to set a standard for international child protection online. Sites that do not comply with the law will be blocked by mobile and fixed CSPs. Further regulations such as the implementation of the Network and Information Security Directive (NISD) and the General Data Protection Regulation (GDPR) in the EU that require network operators to ensure that their network and information systems meet minimum standards of cyber security could lead to significant upside for Allot.

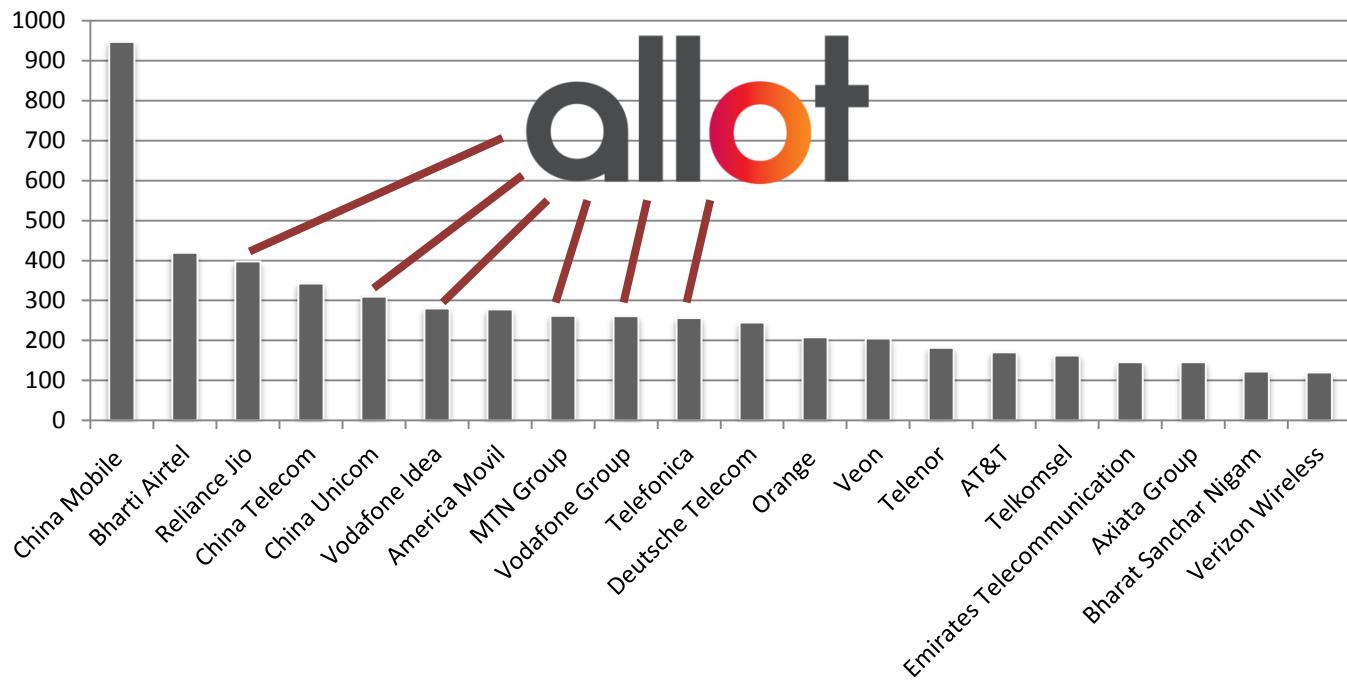
Within the competitive landscape Allot is well positioned and provides network awareness and security of the highest quality. The nature of the company can be characterized to investors by its two offerings. The Network Intelligence solution brings in a constant and steady stream of revenues which according to our evaluation will show low two digit growth in the next two years and then transition to high one digit growth. The second offering, mobile Network Security, is a relatively new and growing business which we expect to have significant high double digit CAGRs in the next five years based on Allot's reputation, deep know how on a global scale, and the high potential of the Rev-Share model. Allot's main customer segment is telecom service providers which can leverage both of Allot's solutions. Due to the synergy between these offerings (one allows customers to see and control their networks and the other to secure them) we believe in the investment potential of the company.

## Customers

Allot solutions are deployed globally by the world's leading service providers and enterprises to improve network performance, ensure QoE, and deliver value added security services. Allot's combined customer base consists of 3000 installations and over 1 billion end users.

Allot provides its services to 13 tier 1 operators. The graphic below shows the largest mobile CSPs in the world by number of subscribers. Six of them toward the top of the list are publically verified Allot customers. For customer size comparison you can see that AT&T and Verizon are towards the bottom of the list. Allot also provides network intelligence and security solutions to enterprises. Customer breakdown is about 80% CSPs and 20% enterprises.

## # of SUBSCRIBERS for TOP 20 TELCOS in Millions



## Some Allot Smart Customers Include:



Major Allot Secure Customers Include:



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