

## Vendor Profile

# Cato Networks: SD-Carrier of a New Generation

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### IDC OPINION

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Relatively easy times for market players in the software-defined WAN (SD-WAN) market are long gone. This year was very fruitful for loud entrances, collaborations, and merges and acquisitions. The market is slowly but surely moving from do it yourself (DIY) to a managed service approach, with security offerings becoming an inevitable part of SD-WAN offerings. In addition, more and more vendors have already started talking about SD-Branch solutions that combine WAN, LAN, security, and analytics in one box.

SD-WAN market attracts not only typical networking vendors, but also service providers, pushing the market of network as a service (NaaS) to grow. Service providers are searching for additional revenue streams as the revenue from their standard connectivity offerings are constantly shrinking. According to the latest IDC *European Enterprise Communication Survey*, virtual network services was the second most popular response on what technology organizations are currently using or planning to use within the next two years.

Cato Networks, being an SD-WAN provider and a connectivity provider, found itself in two fast-growing markets. However, this also means it must compete with two groups of market players. Cato Networks has so far succeeded in this game, and since the start of its operations in 2016, it was able to attract 200+ enterprise customers all over the world. Cato is very active in its go-to-market approach, constantly engaging with potential prospects and informing the general public not only about its own offerings, but also networking and security trends in general. The fact that it was established by Shlomo Kramer, a world-renowned security professional, creates additional trust from the companies looking not only for SD-WAN and/or connectivity, but also state-of-the art security offerings.

Time will tell how this start-up will develop in the future, especially under increasing competitive pressure. But currently, IDC remains cautiously positive about the path Cato Networks has chosen and will keep watching Cato closely.

### IN THIS VENDOR PROFILE

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This IDC Vendor Profile examines Israeli-based company Cato Networks, whose Cato Cloud incorporates SD-WAN, security, and SLA-backed connectivity capabilities, offering its customers a comprehensive and easy-to-deploy solution. IDC examines the company's solution and strategy as well as discusses possible challenges in its future development.

## SITUATION OVERVIEW

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According to the latest IDC SD-WAN forecast, the SD-WAN market in EMEA (covering infrastructure, managed services, and consulting and integration) was worth \$241 million in 2017. This represents 174% growth from 2016. Technologies and categories such as Internet of Things (IoT), mobility, cloud, software as a service (SaaS), and Big Data continue to drive network transformation. Companies are finding themselves between Scylla and Charybdis – there is a need for more capacity and performance, but budgets are not growing to meet increasing network demands. This means organizations will increasingly need WAN solutions that can help them balance fast-growing requirements, better performance, and flat budgets. Hybrid network architectures, cloud connectivity, and network virtualization have become key building blocks to deliver the flexibility, manageability, scalability, and cost effectiveness that enterprises will demand from their WANs.

In fact, the recent *IDC European Enterprise Communication Survey* found that the number of companies that have installed SD-WAN solutions increased from 21% in 2016 to 37% in 2017. Midsize organizations (companies with 250-999 employees) were the most active in SD-WAN implementation and deployments. Implementation in this segment grew from 20% in 2016 to 40% in 2017.

Software-defined WAN has emerged as one of the hottest topics in the WAN space. A wide range of market players – including typical networking hardware vendors, service providers, and myriad start-ups – have introduced their SD-WAN offerings, and the market is considered fairly mature.

### Company Overview

Cato Networks is an Israel-based company, set up by Shlomo Kramer and Gur Shatz in 2015 and launched a commercial service offering in 2016. It has raised \$70 million so far, and its investors include Aspect Ventures, Greylock, Singtel Innov8, and USVP. It currently has 120 employees, of which 60 are in engineering and support roles as well as 45-50 in sales, marketing, and customer success roles.

Cato Networks offers Cato Cloud that consists of two layers: a global cloud network (routing, traffic optimization globally, encryption) and network security capabilities that are embedded in the cloud network and are inspecting traffic (firewall, secure web gateway, advanced threat prevention, secure cloud and mobile access, network forensics). All this software is developed by Cato and is running on 42 global points of presence (PoPs). The global cloud network delivers network and network security capabilities that are available across all existing PoPs all over the globe. PoPs are identical and symmetrical.

PoPs are connected through tier 1 IP transit providers: TeliaSonera, GTT, and NTT. Cato buys wholesale capacity upfront, and each PoP has those carriers to choose from, with Cato getting availability and latency SLA from those carriers. PoPs run software that measures the quality of each carrier between two PoPs for latency, packet loss, and jitter, and Cato can always place packets on the best-performing carrier at any point in time.

Companies can use four approaches to connect to Cato Cloud:

- Using IPsec from an existing firewall is typically done in points of contacts (PoCs). Company can connect a datacenter (DC) to Cato by pointing the firewall to the nearest point of presence and then configuring the rule saying which traffic will go to Cato.
- Through a Cato socket SD-WAN device that can either augment multiprotocol label switching (MPLS) connection or replace MPLS (majority of the Cato's clients, according to Cato, choose to replace MPLS).

- Connect cloud DC in an agentless way. Customers define IP sec from the PoP to the cloud customer datacenter instance. Cato supports AWS, Azure, Google, and Alibaba Cloud – any cloud environment that supports IPsec integration. Cato opens a tunnel to the VPN gateway of the cloud DC. It exposes the IP addresses behind the VPN gateway to the WAN, and based on permission, any user can access cloud resources seamlessly.
- Cato client – VPN client, that dynamically connects mobile user to the nearest PoP. Users get optimized access across the backbone to the DC and cloud, and everything is done under security functionality provided by Cato.

Cato Networks claims that since launching its service, it connected 200+ enterprise customers all over the world with thousands of branches and cloud instances, and tens of thousands of mobile users.

## Company Strategy

Cato is addressing the market by emphasizing the difference between the way networks used to be organized before and network organization now. The change of business environments, increased demand for mobility, and network agility affect the way companies built their networks. Cato defines the following problems that could be solved with its solution:

- **Migration.** Transferring from DC environments to cloud-based solutions
- **Mobility.** Number of mobile users that are not traditionally considered part of the WAN, Branch, and router-based architectures is increasing, and there is a need to deliver network and security capabilities for them.
- **Security.** Companies are dealing with a lot of connections through the internet that do not provide the same level of security as MPLS.
- **Global connectivity.** Globalization pushes companies to have offices around the world. On one hand, MPLS is very expensive for midsize companies to connect offices worldwide. On the other hand, companies can't rely on internet connectivity. Thus, they are constantly struggling and needing more connectivity, but not being able to pay for that.

Cato Networks positions itself as an SD-carrier of a new generation. Legacy carriers build their solutions with different components from third parties for mobile, cloud, optimization, security, SD-WAN, and routing. Each has its own management console – it has to be fully managed by the carrier because it is fragmented, and customers mustn't touch anything as any change to one of the components without alignment with others might lead to various problems. On the contrary, Cato proposed merging those components into a single stack – to an all-in-one cloud network with a single management interface. Co-management model can be introduced meaning that the customer can go and configure policies (security, networking, QoS, etc.), and Cato takes care of underlying infrastructure – the availability, redundancy, software updates, etc. This approach found a positive response among customers.

The most responsive vertical for Cato solutions is manufacturing. Manufacturers are caught between their global mission-critical requirements and relatively low-margin businesses. They usually have small IT departments relative to the requirements they need to meet. Cato solutions help them to reduce capex and seamlessly migrate from MPLS to SD-WAN. Europe is a strong market for Cato Networks in terms of manufacturing clients: Netherlands, Benelux, and the Nordics.

The company is an advocate of step-by-step migration and does not force its clients to leave MPLS all at once. Organizations can first connect just part of locations or choose to use just some parts of functionality Cato provides. When the customer is ready, it can seamlessly roll out additional locations and capabilities on the same platform upgrades.

Cato Networks currently concentrates on midsize and large enterprises, but it is continuously moving upmarket. The European market accounts for 40% of Cato current clients, the U.S. makes up 35%, and the Asia/Pacific and Japan (APJ) holds the rest.

Cato is almost a 100% channel-oriented company. The typical Cato channel consists of connectivity resellers that offer connectivity services and/or managed services. Cato Networks also has direct sales that act as a support for channels in regions where there is a strong channel presence or as a direct point of sale in the regions where channel presence is yet to be established.

## FUTURE OUTLOOK

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The SD-WAN market is expected to grow with a CAGR of 58% over the next five years as adoption among organizations across the region accelerates. The share of managed services is expected to grow in the SD-WAN market, and the overall 2017-2022 CAGR of managed services is predicted to reach 97%. In such fast-developing managed service SD-WAN market, Cato Networks has advantage as it already provides SD-WAN as a service. However, its competitive advantage will be constantly challenged as many market players are moving toward offering SD-WAN as a service.

Digital transformation, growth of multicloud environments, and network virtualization will keep pushing the proliferation of SD-WAN solutions. Appliance-based network infrastructure is moving toward a fully software-defined network. With that, the role of network security, analytics, and management solutions increases and opens up opportunities for vendors to differentiate in this quickly changing market.

To address incoming challenges, Cato has plans to enlarge its managed service offering in the nearest future and add managed detection and response capabilities. Recently, Cato announced the addition of last-mile management and monitoring, which will run 24 x 7 as part of Cato's Global Network Operations Center (NOC).

## ESSENTIAL GUIDANCE

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### Advice for Cato Networks

The SD-WAN market is developing fast, attracting more players, not necessarily from solely the networking segment. To be successful in the market, IDC suggests Cato Networks to pay attention to the following:

- **Increase the number of PoPs.** Even though Europe and North America are fairly covered by a number of Cato PoPs, PoPs in other regions (Latin America, Africa, CIS countries) are few to none, which can prevent Cato Networks from establishing greater presence in these areas.
- **Choose industries wisely.** Some industries and use cases have extremely high requirements to networks (e.g., financial sector with its stock exchange and gambling use cases that will not tolerate any downtime within the network, some use cases in manufacturing and healthcare). Usually, these sectors require on-premise solutions, double MPLS links, and so on that provide them with the necessary network characteristics.
- **Develop the sales channel.** To achieve healthy growth and compete with the increasing number of service providers that start offering SD-WAN, Cato Networks needs to build a strong presence through partners as direct sales have limited reach.

## LEARN MORE

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### Related Research

- *CloudGenix: Application-Centric SD-WAN* (IDC #EMEA44315918, October 2018)
- *European Enterprise Communications Survey, 2018: Attitudes Toward SD-WAN* (IDC #EMEA44105418, July 2018)
- *EMEA SD-WAN Forecast* (IDC #EMEA44026018, July 2018)

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