

CYBERSECURITY IN ISRAEL

THE HOTTEST PRIVATELY HELD SECURITY COMPANIES IN ISRAEL



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EXECUTIVE SUMMARY OF CYBERSECURITY IN ISRAEL

Welcome to our second annual Cybersecurity in Israel report. In this report we highlight what we believe are the leading technology innovators in cybersecurity in Israel, a country that is at the forefront of cybersecurity innovation.

The Israeli military, the Israeli Defense Forces (IDF), has been foundational to the development of the country's global prominence in the cybersecurity industry. The IDF is also one of the most prominent institutions in Israel, as it has a material influence on the country's economic, cultural, and political scene. The country is one of only three highly developed countries (South Korea and Singapore being the other two) that requires a lengthy period of military service for all citizens. Every citizen (men and women) is required to serve 12-32 months minimum (depending on exemptions) once they graduate high school and turn 18. Given the country's placement in the world and its history of wars and border conflicts, the IDF is one of the most battle-trained and ready units. Accordingly, the IDF is central to life in Israel, with unique access to the country's best and brightest young minds.

Within the IDF, the most prestigious group of math and science thought leaders is Unit 8200, an Israeli intelligence corporation. Unit 8200 is analogous to the NSA in the U.S., in that it is responsible for collecting signal intelligence and code decryption; however, the IDF is comprised mostly of 18-21 year olds who are recruited from elite computer feeder programs. During their service, members of Unit 8200 develop deep expertise in cybersecurity, as well as a wide array of connections and they are forced to be self-motivators. Unit 8200 is considered among many to be the foremost technical intelligence agency in the world. As a result, many members of Unit 8200 go on to become founders of cybersecurity start-ups, some of which are public companies, including Check Point, Palo Alto Networks, and CyberArk.

Given the importance of cybersecurity to the defense and economic well-being of Israel, the government nurtures the country's cybersecurity industry. The government is supportive of its soldiers entering the country's private sector and in fact it has funding mechanisms for nurturing cybersecurity start-ups. In addition, the Israeli venture capital industry is one of the world's most prolific investors in cybersecurity. As a result, Israel's cybersecurity engineering talent pool is unmatched around the globe in many respects and Israeli companies are well-positioned to sustain the country's cybersecurity technology leadership.

We personally spoke with executives and investors of each vendor profiled in this book, and we believe the companies have the capability to revolutionize various aspects of the cybersecurity landscape. The execution risk is high, but cybersecurity technologies and environments are evolving so rapidly that the need for innovation is accelerating as traditional approaches are deemed inadequate.

FUNDING TRENDS

Funds Raised

Figure 1 shows the ten largest total amounts raised by our profiled Israeli companies since their respective inceptions, according to crunchbase.com and company press releases



FIGURE 1. Ten Largest Amounts Raised by Company (\$ in Millions)

Source: crunchbase.com, Company reports

As far as fundraising by category, companies in our Israeli report have raised \$1,103M million to date. For a more granular view, we segment our Israeli companies into six categories, including: 1) application and microservices security; 2) threat intelligence, hunting, and protection; 3) security management and assessment; 4) content/data security and analytics; 5) IoT security; and 6) secure access and deception. Our profiled companies raised \$79M in application and microservices security, \$151M in threat intelligence, hunting, and protection, \$265M in security management and assessment, \$242M in content/data security and analytics, \$300M in IoT security, and \$66M in secure access and deception. See Figure 2 for the breakout.



\$350 \$300 \$300 \$265 \$242 \$250 \$200 \$151 \$150 \$100 \$79 \$66 \$50 \$0 Application & Content/Data IoT Security Secure Access Threat Security Microservices Intelligence, Management Security & & Deception Security Hunting & & Assessment Analytics Protection

FIGURE 2. Funding by Category (\$ in millions)

Source: JMP Securities LLC and Company Reports

FIGURE 3. Company Distribution by Category

Application & Microservices Security Alcide Nuweba WhiteSource Software	Threat Intelligence/Hunting/Protection Cye GuardiCore Hysolate Perception Point	Security Mgmt & Assessment Algosec Axonius Cybellum Orca Security SafeBreach XM Cyber
Content/Data Security & Analytics Avanon BigID Votiro Upstream	IOT Security C2A Claroty Cylus Karamba Medigate Sixgill ThetaRay VDOO	Secure Access & Deception D-ID Illusive Plain ID

Source: JMP Securities LLC and Company Reports

CYBERSECURITY & IT INFRASTRUCTURE

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In our view, the increasing adoption of new data center architectures and the cloud is driving demand for solutions that are purpose-built for today's IT environments. As a result, innovative startup vendors are well positioned to take share from slower-moving incumbents with outdated architectures, in our opinion. We view the vendors profiled in this report as some of the most innovative and promising companies in networking, security, and data management. As the market shifts, we believe these companies will have a strong opportunity to represent the next generation of IT infrastructure vendors.

We hope this report is helpful. Please feel free to reach out to our team should you have any questions.

- The JMP Cybersecurity & IT Infrastructure Research Team

INDEX BY VENTURE CAPITAL FIRM

83North GuardiCore VDOO Whitesource Software AI Alliance D-ID Alliance Ventures Upstream Asgent **Karamba Security** Aster Capital Claroty **Avigdor Willenz** VDOO **AXA Venture Partners** D-ID **Battery Ventures** GuardiCore **Bessemer Venture Partners** Axonius BigID Claroty Hysolate Illusive **Blumberg Capital** Cybellum Medigate **BMW iVentures** Claroty **BoldStart Ventures** BigID **Capri Ventures** PlainID **CE Ventures** Alcide **Cerca Partners** Cylus **Charles River Ventures** Upstream **Christian Kern** Cylus **Cisco Investments** Illusive **Citi Ventures** Illusive Claltech GuardiCore Claridge Israel Algosec ClearSky BigID

Clearvision Ventures Claroty **Comcast Ventures** BigID Cyient Cylus **Dell Technology Capital** VDOO **Divergent Group** Votiro **Draper Nexus Ventures** SafeBreach DRW Venture Capital Sixgill DTCP GuardiCore Elron Alcide **Evergy Ventures** Claroty Follow [the] See Cylus **Fontinalis Partners Karamba Security FortRoss Ventures** ThetaRay **Genacast Ventures** Bigid **GGV** Capital VDOO **Orca Security Glilot Capital Partners** Upstream **Greenfield Partners** Avanan **Hewlett Packard Ventures** SafeBreach Hyundai Upstream Hyundai AutoEver Upstream Hyundai CRADLE D-ID iAngels PlainID **Information Venture Partners** BigID

Innovation Endeavors Claroty Hysolate Illusive Intel Capital Alcide Joseph M. Tucci VDOO JVP ThetaRay SCADAfence **Korea Investment Partners Perception Point** Liberty Mutual Karamba Security Lightspeed Venture Partners Axonius M12 Illusive WhiteSource Software Macquarie Capital XM CYBER Magma Venture Partners Avanan Cylus Nuweba Maniv Mobility C2A Upstream Marker LLC Illusive Maverick Ventures D-ID SafeBreach Mindset Ventures D-ID Mitsui & Co Claroty Mobile Financial Partners Sixgill **More Ventures** C2A Claroty MS&AD ventures VDOO Nasdaq Ventures XM CYBER Nationwide Upstream NEA Illusive

INDEX BY VENTURE CAPITAL FIRM

Next47 Claroty **NTT DOCOMO Ventures** VDOO **Omron Ventures** D-ID **OpenView Venture Partners** Axonius **Our Crowd** C2A ThetaRay **Our Innovation Fund** XM CYBER Paladin Capital Group Karamba Security **Partech Partners** GuardiCore **Paypal Ventures** SafeBreach Pitango Venture Capital D-ID **Perception Point Plug and Play** BigID Plug and Play Tech Center Cylus **Presidio Ventures Karamba Security Qumra Capital** GuardiCore Reddot Claroty **REDDS Capital** D-ID Redfield Asset Management Votiro **Rockwell Automation** Claroty Salesforce Ventures Upstream BigID SAP PlainID SAP.io BigID **SBI Holdings** Cylus **Scale Venture Partners** BigID

Senetas Votiro Sequoia Capital Israel SafeBreach SGE Susquehana Growth Equity Whitesource Software Shlomo Kramer SafeBreach Silicon Valley CISO Investments Orca Security SONEA IM Sixgill **Springtide Ventures** PlainID StageOne Ventures Avanan State of Mind Ventures **Perception Point** SVB Capital ThetaRay Swarth Group XM CYBER **Target Global** Nuweba Team8 Claroty Hysolate Tefken Claroty Temasek Claroty The Glenrock Group **Karamba Security** Cylus **Tiger Global** Bigid **T-Mobile Capital Partners** SafeBreach TPG GuardiCore **US Venture Partners** Medigate UST Global XM CYBER Vertex Ventures Israel Axonius Cylus Victor Tsao VDOO **Viola Ventures** PlainID

Volvo Group Upstream WRVI Capital VDOO WTI Axonius Y Combinator D-ID YL Ventures Axonius Karamba Security Medigate Orca Security Zohar Zisapel

ALCIDE

\Delta alcide

Founded: 2016 Revenue: <\$25M www.alcide.io NA 5 Mikonis St. Tel Aviv, Israel 6777214

Company Summary: Alcide is a cloud-native security leader empowering DevSecOps teams to continuously secure and protect multi-cluster Kubernetes deployments. By automatically discovering, managing and enforcing security policies across deployments, Alcide's Microservices Firewall for K8s enables unified code-to-production enforcement of security policies spanning networks and workloads. This enables the smooth operation of business apps while protecting cloud deployments from malicious attacks.

Key Officers:

Gadi Naor – CTO & Co-founder Amir Ofek – CEO Adam Wolman – VP of Sales Karine Regev – VP of Marketing Adi Sapir – VP, R&D

Board of Directors: Not Listed

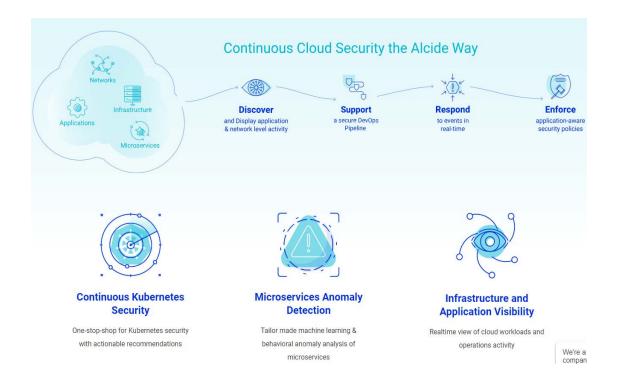
Headcount: 30

Open Positions: 5 U.S. based: 5 International: 5 Sales: 1 Other: 4

Competition: Sysdig Palo Alto Networks Aqua StackRox

Total Funding: \$12.3M

Key Investors: Intel Capital Elron CE Ventures



ALGOSEC

⁽¹⁾algosec

Founded: 2003 Revenue: \$50-\$100M

www.algosec.com 888.358.3696 65 Challenger Rd, Suite 310 Ridgefield Park, NJ 07660

Company Summary: Founded in Israel, Algosec is at the forefront of next-gen firewall management, where its unique platform allows enterprises to discover, map, and migrate business application connectivity to proactively analyze security risk from the business perspective. Additionally, it can automate network security policy changes with zero touch provisioning and link cyber-attacks to certain business processes, allowing companies to significantly mitigate risks. With a host of products that have a differentiated offering, Algosec has been able to accumulate over 1800 customers and 20 of the Fortune 50.

Key Officers:

Yuval Baron – CEO and CCSO Avishai Wool – CTO and Co-founder Ilan Erez – CFO and General Manager Jade Kahn – CMO Chris Thomas – CRO

Board of Directors: Not Listed

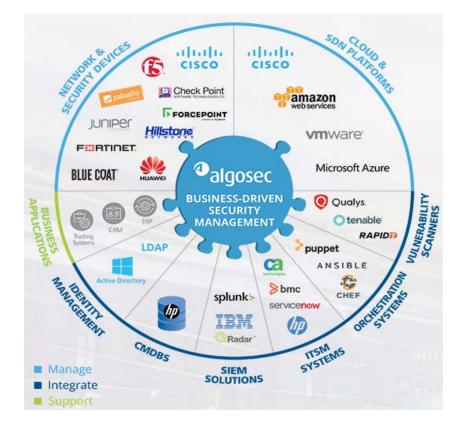
Headcount: 400

Open Positions: 13 U.S. based: 1 International: 12 Sales: 2 Other: 11

Competition: Tufin Skybox Firemon Palo Alto Networks Fortinet Cisco CheckPoint

Total Funding: \$36M

Key Investors: Claridge Israel



AVANAN

Founded: 2014 Revenue: <\$25M www.avanan.com 855.528.2626 259 W. 30th St. New York, NY 10001

Company Summary: Born in the cloud, Avanon secures all cloud emails, messages, and file sharing tools from phishing, malware, and data loss in a single click. The company finds best-of-breed security tools and then cloudifies them with its proprietary APIs to standardize users and policy information. The company then bundles them so customers can deploy their choice of security tools or a pre-bundled offering and consolidate the payment into a single per user per month subscription creating a single click full security stack. It also integrates with the cloud to secure SaaS applications without proxies or agents to allow for instant and secure usage of SaaS apps.

Key Officers:

Gil Friedrich – CEO Don Byrne – EVP, Worldwide Sales Avi Zelovich – CTO Michael Castricone – CFO Roy Rotem – VP, Product Management Michael Landewe – VP, Business Development Itamar Lask – VP, R&D

Board of Directors:

Yuda Doron – Managing Partner, Greenfield Partners Modi Rosen – Managing Partner, Magma Venture Partners Tal Slobodkin – Managing Partner, StageOne Ventures

Competition:

Mimecast Proofpoint Zix

Total Funding: \$41.4M

Key Investors: Greenfield Partners Magma Venture Partners StageOne Ventures

Headcount: 70

Open Positions: 0

U.S. based: 0 International: 0 Sales: 0 Other: 0

1. Select your SaaS



Avanan connects to any cloud application in one click via API connection. Secure all of your cloud applications from business suites like Office 365 to Citrix Sharefile, and everything in between.

2. Choose Security Layers



Advanced anti-phishing, anti-malware, DLP, and UEBA tools from the leading security vendors, pre-configured on the cloud. Add layers of security a-la-carte or from our pre-packaged bundles to your SaaS in a single click.

3. Deploy Instantly

Source: Company website, all revenues are CY-19



All of your security is now standardized across your organization and managed from a single dashboard. You can finally stop worrying about threats on the cloud.

AXONIUS

Founded: 2017 Revenue: <\$25M www.axonious.com 646.480.2771 330 Madison Avenue, 39th Floor New York, NY 10017

AXONIUS

Company Summary: Axonius is a cybersecurity asset management platform providing comprehensive asset inventory by managing and securing all connected business devices. The platform seamlessly integrates with existing device-specific management systems to provide IT operations teams a unified, extensible, and open system. With Axonius, customers are able to improve vulnerability management, security operations, incident response, and overall security posture. Deploying in a matter of hours, IT and security professionals are equipped to uncover security gaps and automatically validate/enforce security policies.

Key Officers:

Dean Sysman – Co-founder & CEO Ofri Shur – Co-founder & CTO Nathan Burke – CMO Avidor Bartov – Co-founder & Chief Architect Lenny Zeltser – CISO Meital Grinstein – VP, Finance

Board of Directors:

Amit Karp – Partner, Bessemer Venture Partners Anne DelSanto – Independent Dean Sysman – Co-founder & CEO, Axonius Mackey Craven – Partner, OpenView Venture Partners Ofri Shur – Co-founder & CEO, Axonius Yoav Leitersdorf – Managing Partner, YL Ventures

Competition: Panaseer

Cytegic

Total Funding: \$95M

Key Investors:

Bessemer Venture Partners Lightspeed Venture Partners OpenView Venture Partners Vertex Ventures Israel WTI YL Ventures

Headcount: 80

Open Positions: 1 U.S. based: 0 International: 1 Sales: 0

Other: 1

Source: Company website, all revenues are CY-19

1. DEPLOY AXONIUS

Axonius is an agentless single virtual appliance and can be deployed either onpremise or in cloud instances. 2. CONNECT ADAPTERS

Connect to the different solutions you already use with Adapters, pre-built integrations on the Axonius platform. 3. EXAMINE YOUR ASSETS

Axonius provides a fully unique list of devices and users so you can surface areas of risk and be alerted when policies aren't met.



Create a fully customizable Axonius dashboard based on any query you save

BIGID

Founded: 2015 Revenue: <\$25M www.bigid.com 917.765.5727 165 Mercer Street, 4th Floor New York, NY 10012

Company Summary: BigID is an identity intelligence software provider, powered by machine learning to aid enterprises on their data privacy and security initiatives. The approach brings a data science framework to data privacy and ensures compliance with regulations such as CCPA and GDPR. With a modern approach leveraging an API-based micro services based architecture, BigID provides data coverage across on-prem, cloud, and hybrid environments at petabyte scale to protect sensitive data and mitigate breach risk. Within a single tool, BigID automatically discovers all enterprise data and runs analysis through advanced data intelligence to automate data privacy, protection, and governance.

Key Officers:

Dimitri Sirota – Co-founder & CEO Scott Casey – CFO & COO Michael Trites – SVP of Sales Nimrod Vax – Co-founder & Chief Product Officer

Board of Directors:

Jay Leek – MD, ClearSky Security Ariel Tseitlin – Partner, Scale Venture Partners Gil Beyda – Managing Partner, Genacast Ventures Ed Sim – Partner, BoldStart Ventures Alex Ferrara – Bessemer Venture Partners

Headcount: 195

Open Positions: 15

U.S. based: 3 International: 12 Sales: 5 Other: 10

Competition:

Code42 Symantec Data Loss Prevention

Total Funding: \$146M

Key Investors:

Bessemer Venture Partners BoldStart Ventures ClearSky Comcast Ventures Genacast Ventures Information Venture Partners Plug and Play Salesforce Ventures SAP.io Scale Venture Partners Tiger Global

Source: Company website, all revenues are CY-19

Catalog

Capture & manage technical, business and security metadata across your entire data environment. Automatically catalog and map sensitive & personal data with deep data insight, incorporating active metadata and classification.

Correlation

Find PI and correlating data back to a person or entity for privacy data rights automation. Automatically identify data relationships, identities, entities, dark data, inferred data, and associated sensitive data

Classification

Leverage both pattern & ML based classification to automatically classify data elements, metadata and docs across any data source or data pipeline. Incorporate multiple types of classification for comprehensive classification on all enterprise data.

Cluster Analysis

Find duplicate and similar data for easy labeling, governance & data consolidation across files and databases. Apply patented ML-based data analysis for insight and understanding across large data sets across your data environment.

-+.

Coverage

Advanced discovery-in-depth on all of your data wherever it lives – on-prem, in the cloud, and a hybrid environment – gives a unified view of all sensitive and personal data across all data types.

C2A

Founded: 2016 Revenue: <\$25M www.c2a-sec.com 972.54.566.4153 Technology Park, Derech Agudat Sport Ha'poel 2 Jerusalem, Israel

security

Company Summary: C2A is an end-to-end vehicle cybersecurity platform to protect against cyber takeover of internal vehicle systems. As the automotive industry becomes increasingly reliant on computerized systems, the need for cyber protection becomes as relevant as airbags, with a slew of potential attack surfaces from the microchip level to a hack of autonomous driving systems. C2A's holistic, multilayer approach encompasses safeguards on the perimeter, network, and endpoint for OEMs and Tier-1 suppliers.

Key Officers:

Michael Dick – Founder & CEO Nathaniel Meron – Chief Product & Marketing Officer Issak Davidovich – VP, R&D Dr. Daniel Moskovich – Head of Algorithms Frank Spitzner – Head of Safety and AUTOSAR Prof. Avishai Woll – Head of Academic Task Force

Board of Directors:

Meir Ukeles – Founding Partner, More Ventures Moshe Raines – Managing Partner, Labs/02 Naftali Opatowsky – Founder & CEO, Mobile Group Olaf Sakkers – General Partner, Maniv Mobility

Headcount: 26

Open Positions: 0

U.S. based: 0 International: 0 Sales: 0 Other: 0

Competition: Karamba Continental (Argus) Bosch (Escript)

Total Funding: \$8M

Key Investors: Our Crowd Maniv Mobility More Ventures



CYBERSECURITY & IT INFRASTRUCTURE

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CLAROTY

Founded: 2014 Revenue: \$25M-\$50M www.claroty.com 201.345.4256

488 Madison, 11th Floor New York, NY 10022

Company Summary: The Claroty Platform is an integrated set of cybersecurity products that provides extreme visibility, unmatched cyber threat detection, secure remote access, and risk assessments for industrial control networks. With a focus on operational technology (OT), the company has a unique ability to protect devices from vulnerabilities, then control the network segmentation and manage remotes access by enforcing granular policies and recording sessions. With its continuous monitoring it can detect malicious activity and high risk, then respond with context rich alerts for rapid triage.

Key Officers:

Yaniv Vardi – CEO Benny Porat, PhD – Co-founder & CTO Galina Antova – Co-founder & Chief Business Development Officer Jennifer Leggio – CMO Udi Bar Sela – CFO Grant Geyer – Chief Product Officer

Board of Directors:

Amir Zilberstein – Co-founder & CEO, Claroty Dave DeWalt – Ex-CEO, FireEye Nadav Zafrir – CEO, Team8 Benny Porat,PhD – Co-founder & CTO, Claroty David Cowan – Partner, Bessemer Yeoh Keat Chuan – MD, Temasek Meir Ukeles – Partner, More Ventures

Headcount: 200

Open Positions: 13

U.S. based: 2 International: 11 Sales: 4 Other: 9



CyberX Indegy Nozomi Networks

Total Funding: \$92M

Key Investors:

Rockwell Automation Next47 Aster Capital Temasek Bessemer Venture Partners Team8 Innovation Endeavors Tefken Clearvision Ventures RedDot Capital Partners Mitsui & Co Evergy Ventures More Ventures BMW iVentures

Source: Company website, all revenues are CY-19



Protect

Proactively discover and eliminate vulnerabilities, misconfigurations and insecure connections.



Control

Implement NW segmentation and manage remote access by enforcing granular access policies and recording sessions.



Detect

Continuously monitor and detect malicious activity and high-risk changes throughout the attack "kill-chain".



Respond

Receive context rich alerts for rapid triage and investigation, and automate response using existing NW infrastructure.

CYBELLUM

Founded: 2015 Revenue: <\$25M www.cybellum.com 972.03.914.9140 Kharuts Street 9 Tel Aviv, Israel

Cvbellun

Company Summary: Cybellum develops risk assessment and vulnerability detection (without source code) technology that enables users to satisfy compliance requirements in a matter of days versus months. Currently the business is 80% targeted towards the automobile industry, which is contending with legislative demands that are forcing automotive manufacturers to conduct risk assessments of their components. Cybellum's value is an agentless program providing forensics and visibility into vulnerabilities.

Key Officers:

Slava Bronfman – Co-founder & CEO Michael Engstler – Co-founder & CTO Eyal Traitel – Head of Customer Success Ovadia Meir – Head of Product Adi Bar-Lev – Head of Marketing Eddie Lazebnik – Head of Strategy

Board of Directors: Slava Bronfman – Co-founder & CEO Michael Engstler – Co-founder & CTO Yodfat Harel Buchris – MD, Blumberg Capital Uziel Zontag – RSBG Shmuel Chafets – General Partner, Target Global

Headcount: N/A

Open Positions: 0 U.S. based: 0 International: 0 Sales: 0 Other: 0 Competition: IBM

F-Secure

Total Funding: \$15M

Key Investors: Blumberg Capital

Source: Company website, all revenues are CY-19



Detect Security Threats

Cybellum detects full range of automotive security threats, helping you get full visibility and understanding of the cybersecurity risks of your components



Lower 3rd Party Risk

Cybellum makes integration of 3rd party software components easier, by allowing you to check them without access to source code

Continuous Monitoring

Live monitoring and threat intelligence ensures that even deployed components are continuously monitored for new threats

JMF

CYE

Founded: 2012 Revenue: \$25M-\$50M www.cyesec.com +972.77.557.5881



10 Abba Eban, Building C, 8th Fl Herzliya, Israel

Company Summary: CYE offers professional services that are augmented with proactive cybersecurity technologies. More specifically, the company leverages artificial and natural intelligence along with veteran security experts. CYE's technology enables organizations to take a proactive security approach and make informed decisions by presenting complex cyber risk optimization problems so that they can adapt to rapid changes in the threat landscape. Its platform continuously analyzes behaviors, ultimately gaining a deep understanding of threats across environments with high levels of accuracy based on real attacks.

Key Officers:

Reuven Aronashvili – CEO Ronen Lago – CTO Ofer Malka – COO Noy Saban – CFO

Board of Directors: Not Listed

Headcount: 70

Open Positions: 0

U.S. based: 0 International: 8 Sales: 0 Other: 8 Competition: NA Total Funding: Not Listed

Key Investors: Not Listed

Source: Company website, all revenues are CY-19



VIRTUAL EXPERTS

Hacking Bots that mimic attack vectors and vulnerabilities to expose potential threats.



COMMUNITY WISDOM

Private network of global vetted experts who research and explore new vulnerabilities.



Nation-level experienced members who develop the future generation of potential attack scenarios.



CYLUS

Founded: 2017 Revenue: <\$25M www.cylus.com +972.77.440.1178 23 Yehuda HaLevi St., 21st Floor Tel Aviv, Israel

CYLUS

Company Summary: The Cylus founding team brings cybersecurity experts from the Israel Defense Intelligence Corps as well as executives from the railway industry to support the railway industry's need to prevent cyber-attacks of railway and metro systems lines. Avoiding service disruption or safety incidents, the Cylus solutions detect cyber threats in signaling and control networks, trackside and onboard, facilitating and effective response before any harm can take place.

Key Officers:

Amir Levintal – Co-founder & CTO Miki Shifman – Co-founder & CTO Serge Van Themsche – VP, Strategic Partnerships

Board of Directors:

Eran Gartner – CEO, Pandrol Yoram Oron – Founder & General Partner, Vertex Ventures Israel Zohar Zisapel Zvi Limon – General Partner, Magma Venture Partners

Headcount: 19

Open Positions: 4 U.S. based: 0

International: 4 Sales: 1 Other: 3 Competition: Cervello

Total Funding: \$17M

Key Investors: Cerca Partners Christian Kern Cyient Follow [the] See Glenrock Israel Magma Venture Partners Plug and Play Tech Center SBI Holdings Vertex Ventures Israel Zohar Zisapel

EXISTING OPERATIONAL NETWORK Ongoing Cybersecurity Risk and Vulnerability Assessment security Awar and Training ed-team/Blue-tea Attack Simulation Incident Incident Response Investigation 0 0 0 ď Cybersecurity LINE EXTENSION / MODERNIZATION mplementation Assuran Requirements Management C Penetration Testing ersecurity Tender Requirements Drafting Strategy Development



D-ID

Founded: 2017 Revenue: <\$25M www.deidentification.co +917.463.3797

Tel Aviv, Israel

Company Summary: D-ID is an identity protection technology with the first-of-its-kind facial image deidentification solution, to protect user visibility without impacting usability. Unauthorized, automated facial recognition algorithms fail to properly identify the subject in image due to the way D-ID strips the image; however this is conducted in a matter where the discrepancy is inconceivable to the human eye. Thereby, companies, security agencies, and governments may facilitate free usage of personal data risk-free, as these photos are incapable of decryption or reverse-engineering. These identify theft protection innovations ensure regulatory compliance and protection of biometric databases.

Key Officers:

Sella Blondheim – Co-founder & COO Eliran Kuta – Co-founder & CTO Gil Perry – Co-founder, CEO

Board of Directors:

Rami Kalish – Managing General Partner & Co-founder, Pitango Venture Capital

Headcount: 13

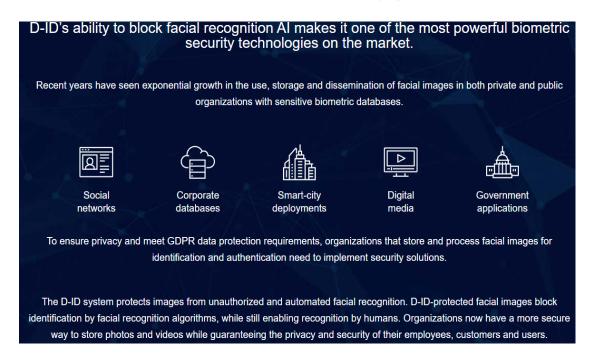
Open Positions: 1

U.S. based: 0				
International: 1				
Sales: 0				
Other: 1				

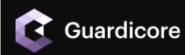
Competition: Deeping Source Brighter Al IAV

Total Funding: \$23M

Key Investors: AI Alliance AXA Venture Partners Hyundai CRADLE Maverick Ventures Mindset Ventures Omron Ventures Pitango Venture Capital REDDS Capital Y Combinator



GUARDICORE



Founded: 2013 Revenue: \$25M-\$50M www.guardicore.com 628.220.2670

23rd Floor, 23 Menachem Begin Rd. Tel-Aviv, Israel

Company Summary: Founded in 2013, GuardiCore looks to serve enterprises who aim to gain significantly enhanced visibility into their hybrid cloud environments. By providing segmentation in the cloud and combining with orchestration tools, GuardiCore provides micro segmentation that allows companies to robustly protect their growing hybrid cloud environments in a seamless manner. In addition to micro segmentation and orchestration, it also provides detection capabilities, which allows its products to rapidly detect breaches within a hybrid environment.

Key Officers:

Pavel Gurvich– CEO & Co-founder Ariel Zeitlin – Co-founder & CTO Dror Sal'ee – VP Biz Dev & Co-founder Yaron Bartov – CFO Ofer Wolf – COO Chris Gaebler – CMO Ilan Stern – VP, HR

Board of Directors: Pavel Gurvich – CEO, GuardiCore Ariel Zeitlin – CTO, GuardiCore Prof. Ehud Weinstein – Board Chairman, GuardiCore Scott Tobin – General Partner, Battery Ventures Erez Ofer – General Partner, 83North Ram Metser – Executive Chairman, Segterra Boaz Dinte – Qumra Capital, Co-founder Yuda Doron – MP, Greenfield Partners Competition: Cisco (Titration) Illumio Palo Alto Networks

Total Funding: \$106M

Key Investors: 83North Battery Ventures Claltech DTCP Qumra Capital Partech Partners TPG

Headcount: ~130

Open Positions: 9

U.S. Based: 2 International: 7 Sales: 2 Other: 7



HYSOLATE

HYSOLATE

Founded: 2016 Revenue: <\$25M www.hysolate.com

Totseret Ha-Arets St. 7 Tel Aviv-Yafo, Israel

Company Summary: Hysolate is a disruptive platform with a hybrid-based endpoint architecture for running multiple isolated operating systems on a single device. The primary use case is typically as an air-gap solution, bridging the conflict between security and productivity. Employees are able to leverage applications that IT previously would block by isolating privilege access environments using virtualization, while still maintaining safeguards against malicious attacks with security ingrained below the operating system. Team8, a cybersecurity incubator founded by Israeli defense veterans, was instrumental to the founding of Hysolate, and remains engaged through board advisory.

Key Officers:

Marc Gaffan – CEO & Board Member Tal Zamir – CTO & Board Member Yuki Arbel – VP, Product Management Dror Granot – VP, R&D Karine Regev – VP, Marketing Ido Samson – VP, EMEA & APAC Sales John Pelaggi – VP, Americas Sales Itay Nebenzahl – VP, Finance

Board of Directors:

Amit Karp – Partner, Bessemer Venture Partners Harpinder Singh – Partner, Innovation Endeavors Nadav Zafrir – CEO & Co-founder, Team8 Yuval Shachar – Founding Venture Partners, Innovation Endeavors

Competition:

Bromium Melo Security Fireglass VMware

Total Funding: \$33M

Key Investors: Bessemer Venture Partners Team8 Innovation Endeavors

Headcount: 50

Open Positions: 0 U.S. Based: 0

International: 0 Sales: 0 Other: 0

Source: Company website, all revenues are CY-19

Empowering Your Enterprise

The Hysolate platform was designed specifically for the enterprise environment, built for scale, and around existing enterprise tools and methods.



Centralized Deployment

Hysolate endpoints are deployed, monitored and managed centrally via the Hysolate management server.



API Driven

The Hysolate management server exposes a full REST API, enabling easy integration with other IT management systems and tools.



Simplified IT

The platform provides new powerful IT capabilities for easier endpoint deployment, update and support.

ILLUSIVE

Founded: 2014 Revenue: <\$25M www.illusivenetworks.com 844.455.8748

Totseret Ha-Arets St. 7 Tel Aviv-Yafo, Israel

Company Summary: Illusive Networks is a pioneer of deception technology, empowering security teams to take informed action against advanced, targeted cyberattacks by detecting and disrupting lateral movement toward critical business assets early in the attack life cycle. Agentless and driven by intelligent automation, Illusive technology enables organizations to significantly increase proactive defense while adding almost no operational overhead. By saturating the environment with deceptive information, Illusive creates a distorted reality that the attacker cannot confidently navigate. It is a solution that disrupts the attacker's operations and helps security teams detect and resolve advanced attacks to prevent cyber incidents from becoming business crises.

Key Officers:

Ofer Israeli – CEO & Founder Arik Levi – CFO Claire Trimble – CMO Bob Horn – CRO

Board of Directors:

Nadav Zafrir – CEO, Team8 Dave DeWalt – Ex-CEO, FireEye Yuval Shachar – Partner, Marker LLC Aaron Jacobson – Board Member

Headcount: 100

Open Positions: 6

U.S. Based: 6 International: 0 Sales: 5 Other: 1 Competition: Attivo Networks Cymulate TrapX Symantec Fortinet

Total Funding: \$30M

Key Investors:

Bessemer Venture Partners Cisco Investments Citi Ventures Innovation Endeavors M12 Marker LLC NEA

Source: Company website, all revenues are CY-19





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KARAMBA SECURITY

Karamba Security

Founded: 2015 Revenue: <\$25M www.karambasecurity.com 248.547.5171

24 HaNagar Street Hod Hasharon, Israel

Company Summary: Karamba Security provides industry-leading comprehensive cybersecurity solutions for the connected device lifecycle. Its Autonomous Security software products, including ThreatHive, Carwall, and SafeCAN, provide end-to-end in-vehicle cybersecurity for the endpoints and the internal messaging bus. Karamba Security's solutions prevent cyberattacks with zero false positives and secure communications, including over-the-air updates, with negligible performance impact. Karamba is engaged with 17 OEM and tier-1 customers.

Key Officers:

Ami Dotan – CEO & Co-founder David Barzilai – Executive Chairman & Co-founder Tal Ben-David – VP R&D & Co-founder Assaf Harel – Chief Scientist & Co-founder Idit Mor – CFO Guy Sagy – CTO

Board of Directors: Ofer Schreiber – MD, YL Ventures Chris Stallman – MD, Fontinalis Partners Neil Schloss – Independent Board Member

Headcount: 35

Open Positions: 5

U.S. based: 0 International: 5 Sales: 0 Other: 5 Continental AG C2A

Competition:

Total Funding: \$27M

Key Investors: YL Ventures Fontinalis Partners Paladin Capital Group Liberty Mutual Presidio Ventures The Glenrock Group Asgent

Source: Company website, all revenues are CY-19



Electronic Control Unit (ECU) protects itself

The security policy is automatically embedded into the ECU code. Detection and prevention decisions are made locally on the ECU. No connectivity required.



all ECUs ARM and Intel processors, Linux, QNX, and AutoSAR operating systems and schedulers are supported. Any controller

can be protected.



Zero false positives

Patented deterministic algorithms ensure that only legitimate binaries and function calls, based on factory settings, are allowed to run on the car's ECU, Everything else is blocked. Period.



No anti-malware updates required

Security policy is based on factory settings. No need to update the policy with new, anti-malware signatures.



Negligible performance Impact

The embedded security policy performs real-time inspection of the operations running in the ECU, with minimal CPU and storage footprints that don't require any hardware change.



No developer intervention

Patented algorithm automatically generates the security policy, and is embedded automatically into the ECU software. Developers can focus on developing new features instead of spending resources, flushing out hidden security bugs.

MEDIGATE

Founded: 2017 Revenue: <\$25M www.medigate.io 908.247.8302 594 Yigal Alon Street, Building B Tel Aviv, Israel

SMEDIGATE

Company Summary: Medigate is a security asset management platform servicing all connected medical devices for clinical networks. Health care provider networks leverage the threat detection and attack protection services with a platform that was constructed around the medical workflow. Device and identity protocols enable hospital networks to ensure patient data privacy and safety. In addition to detection and prevention, the platform offers biomedical device specific analytics to optimize utilization, procurement, and maintenance of devices while streamlining existing processes via integration with other connected medical device management systems. The company was recently recognized as one of its Top 20 IOT startups to watch.

Key Officers:

Jonathan Langer – Co-founder & CEO Pini Pinhasov – Co-founder & VP, Product Itay Kirshenbaum – Co-founder & VP, R&D Tyson Hempel – VP, Americas Sales Stephen Goldberg – VP, Systems Engineering Beth Ellis – VP, Marketing Kobi Rubin – VP, Data and Analytics

Board of Directors:

Bruce Taragin JD - MD, Blumberg Capital Jacques Benkoski Ph.D – Partner, US Venture Partners Ofer Schreiber – Partner & Head, YL Ventures

Headcount: 35

Open Positions: 0

U.S. based: 0 International: 0 Sales: 0 Other: 0 Competition: CyberMDX

Total Funding: \$50M

Key Investors:

Blumberg Capital US Venture Partners YL Ventures



NUWEBA

wweba

Founded: 2018 Revenue: <\$25M www.nuweba.com

Rothschild Boulevard 37 Tel Aviv, Israel

Company Summary: With a ground-up approach to re-architect starting from the kernel, Nuweba revamped server-less security to protect applications with scalable, high-performance use cases and provide deep visibility with real-time analytics. The benefits of server-less platforms are still maintained for developers with one-click compatibility to avoid any compromise of security, efficiency, or performance. Nuweba brings security to server-less and overcomes the previously existing challenges of speed, security, and visibility in server-less technology environments.

Key Officers:

Ido Neeman – Co-founder & CEO Yan Cybulski – Co-founder & CTO

Board of Directors: Not Listed

Headcount: 20

Open Positions: 0 U.S. based: 0 International: 0 Sales: 0 Other: 0

Competition: CloudPassage Dashbird IOPipe

Total Funding: \$15M

Key Investors: Magma Venture Partners Target Global



No Container Reuse

Ensuring that function containers aren't being reused and destroyed after every invocation, blocking attacker persistence ability



Code Execution Prevention

Observation of normal behavior based on low-level process activities – identifying deviations and malicious acts



Achieve fine-grained control and visibility over functions' outbound network traffic, both internet and internal cloud services Source: Company website, all revenues are CY-19



Credentials Vault

Secrets, tokens and IAM roles are stored in an inaccessible secured vault outside of the function containers



Function Vulnerability Firewall

Protection against attacks including XSS, SQLI, SSRF, Information Disclosure, XXE, and more



Real-time Anomaly Detection

Detection of anomalies in users' interactions and internal function flow suspected as malicious, identifying potential attackers

ORCA SECURITY

Founded: 2019 Revenue: <\$25M www.orca.security

65 Yigal Alon Tel Aviv, Israel

Company Summary: Orca Security brings disruption to the vulnerability assessment market, displacing legacy CSPM (Cloud Security Posture Management) and CWPP (Cloud Workload Protection Platforms) with agentless, full-stack visibility into cloud infrastructure. The proprietary SideScanning Technology delivers deep insights into AWS, Azure, and GCP environments as well as operating systems, applications, and data. Orca embodies the principle of "Security at the Speed of the Cloud" while deploying at a fraction of the cost and covering cloud context overlooked by legacy vendors.

Key Officers:

Avi Shua – Co-founder & CEO Pini Karuchi – CFO & Acting COO Yoav Alon – CTO Liran Antebi – Co-founder & Chief Architect Matan Ben Gur – Co-founder & Chief Architect Gil Geron – Co-founder & CPO

Board of Directors: Glenn Solomon – Managing Partner, GGV Capital

Headcount: 37

Open Positions: 1 U.S. based: 0 International: 1 Sales: 0 Other: 1

Competition:

Checkpoint Palo Alto Networks VMware

Total Funding: \$27M

Key Investors: GGV Capital Silicon Valley CISO Investments YL Ventures

Source: Company website, all revenues are CY-19



Instant-on, no hassle, impact-free deployment.

Within minutes, you'll be acting on risk you were previously blind to—all without agents, network scanners, organizational friction, or impact on performance.



You could buy three tools instead...but why?

Orca Security replaces legacy vulnerability assessment tools, CSPM (cloud security posture management), and CWPP (cloud workload protection platforms).



Complete coverage, no overlooked assets.

Since you don't need to rely on per-asset integration, you won't have to settle for partial deployment and visibility. Even paused or stooped machines are surfaced.



Give your sys admin superpowers.

Hiring cloud security engineers is almost impossible. Put Orca in the hands of your sys admin or security specialist and give them cloud security superpowers.

PERCEPTION POINT



Founded: 2015 Revenue: <\$25M www.perception-point.io 972.03.979.7011 Ahad Ha'Am 9 Street Tel Aviv, Israel

Company Summary: Perception Point is a next-gen cloud-based, hardware-assisted platform leading advanced threat prevention across enterprise collaboration channels. The layered solution directly accesses the CPU to detect and prevent attacks prior to exploitation at the earliest stage possible across email, shared drives, messaging, or anywhere files/URLs are exchanged. No sandbox is required and the cybersecurity as a service offering is deployed with a single click, analyzing 40x faster than legacy solutions with limitless scale to scan 100% of traffic.

Key Officers:

Yoram Salinger – CEO Eyal Drami – CFO & COO Shlomi Levin – Co-founder & CTO Michael Aminov – Co-founder & Chief Architect

Board of Directors:

Pinhas Buchris – Co-founder & General Partner Rami Kalish – Managing General Partner & Co-founder Yuval Baharav – Co-founder & General Partner

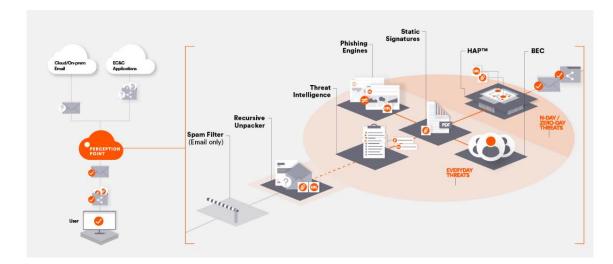
Headcount: 25

Open Positions: 1 U.S. based: 0 International: 1 Sales: 0 Other: 1 **Competition**: Fortinet

Mimecast Microsoft Proofpoint

Total Funding: \$10M

Key Investors: Korea Investment Partners State of Mind Ventures Pitango Venture Capital



PLAINID

Founded: 2014 Revenue: <\$25M www.plainid.com 972.52.479.0448 94 Yigal Alon Tel Aviv, Israel

Company Summary: PlainID develops an advanced Authorization Platform to control access across cloud, mobile, and on-premise applications. The simplification provides clear control with a single point of view and single decision to make, versus the traditional role-based or attribute-based authorization solutions. Customers of PlainID derive value from a scalable, graph database authorization platform without worry and with increased flexibility.

Key Officers:

Oren Ohayon Harel – Co-founder & CEO Erez Storch – CFO Gal Helemski – Co-founder & CIPO Richard Bauer – VP, Sales Sam Adler – VP, Marketing Daniel Brudner – VP, Sales Engineering Tal Yaari – VP, R&D

Board of Directors:

Dennis Shaya – Principle, Capri Ventures Gal Helemski – Co-founder & CIP, PlainID Omry Ben-David – Partner, Viola Ventures Oren Ohayon Harel – Co-founder & CEO, PlainID

Headcount: 60

Open Positions: 0

U.S. based: 0 International: 0 Sales: 0 Other: 0 Competition: Okta Oracle Sailpoint Ping NextLabs

Total Funding: \$13M

Key Investors: SAP iAngels Springtide Ventures Viola Ventures Capri Ventures

Source: Company website, all revenues are CY-19

Intuitive graphic design enables business owners, administrators and managers to easily supervise and manage restrictions and permissions across the board from a centralized platform. Full visibility, audit trails and deep analytics reveal which data and functionality can be seen and used by whom.





SAFEBREACH

Founded: 2014 Revenue: <\$25M www.safebreach.com 408.743.5279

111 W. Evelyn Avenue, Ste. 117 Sunnyvale, CA 94086

🐮 SafeBreach

Company Summary: SafeBreach is an early leader in the emerging breach and attack simulation (BAS) market. The company's solution utilizes more than 11 million breach methods to look for weaknesses in an organization's cyber defenses. It also has a partner program for vendors and service providers that want to incorporate BAS technology into their capabilities. It attempts to look at systems and defenses from a hacker's perspective, and the company also offers a "Hacker's Playbook" that details some of the latest cyberattack strategies.

Key Officers:

Guy Bejerano – CEO & Co-founder Itzik Kotler – CTO & Co-founder Yotam Ben Ezra – VP, Product Ken Smith – CRO Yael Ben Arie – VP, R&D Amit Klein – VP, Security Research

Board of Directors:

Gili Ra'anan – Partner, Sequoia Capital Guy Bejerano – CEO & Co-founder, SafeBreach Itzik Kotler – CTO & Co-founder, SafeBreach Guy Horowitz – General Partner, DTCP Rio Hiro Maeda – Managing Director, DNX Ventures Hemi Zucker – General Partner, OCV Partners Jeff Williams – Operating Partner, Bain Capital Jay Ganatra – Director, Paypa Ventures Abishek Shukla – Head of Global Venture Capital Investments, HP Competition: Verodin (FireEye) Attack IQ Cymulate

Total Funding: \$34M

Key Investors:

Sequoia Capital Israel Draper Nexus Ventures Shlomo Kramer T-Mobile Capital Partners Paypal Ventures Hewlett Packard Ventures Maverick Ventures

Headcount: 65

Open Positions: 3

U.S. based: 1 International: 2 Sales: 0 Other: 3



SCADAFENCE



Founded: 2014 Revenue: <\$25M www.scadafence.com

4 Menorat Ha'Maor St. Tel Aviv, Israel

Company Summary: SCADAfence provides continuous OT network monitoring that provides visibility, risk management and threat detection. As OT network connectivity has become a mandatory business requirement, it now requires a shift in the security mindset to question how to stay connected in a secure manner. The SCADAfence platform is a non-intrusive continuous network monitoring solution that was purposely built to provide the required visibility and security for organizations adopting advanced Industrial IoT (IIoT) technologies. In CY18, the company grew revenue ~300% Y/Y and grew headcount more than 200%.

Competition:

Not disclosed

Key Investors:

Global Brain 31 Ventures

Anaels

JVP

Nexstar Partners

Total Funding: \$10M

Key Officers:

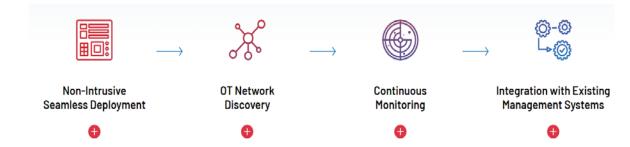
Elad Ben-Meir – CEO Ofer Shaked – Co-founder & CTO Chen Lipman – CFO Tom Thirer – VP, Product Management Moshe Raab – VP, R&D Michael Yehoshua – VP, Global Marketing Ilay Rennert – VP, Global Sales

Board of Directors:

Yoav Tzruya – General Partner, JVP Eric Cohen – Chief Development Officer, InterDigital Julia Kagan – Principal, JVP

Headcount: Unknown

Open Positions: No Openings



SECUREDTOUCH

SECUREDTOUCH

Founded: 2014 Revenue: <\$25M www.securedtouch.com 972.73.394.6122 10 Ahaliav Street Ramat Gan, Israel

Company Summary: SecuredTouch is an identity verification platform intended to offer behavioral biometrics of parameters like keyboard-typing, scroll-velocity, touch pressure, and finger size to create a unique user behavioral profile for reference during a scenario where an adversary attempts to commit fraud via unauthorized mobile access. These solutions are mobile-optimized with no enrollment and are easy to implement with real-time alerts of suspicious activity, reducing fraud and improving customer digital experience.

Key Officers:

Alasdair Rambaud – CEO Ran Shulkind – Co-founder & CPO Ran Wasserman – CTO Yael Goren – VP, HR Noa Benari – VP, Marketing Mark Freeman – VP, Sales Lidan Hazout – Algorithms Team Leader Yuval Feilchenfeld – Platform Team Leader

Board of Directors:

Not Listed

Headcount: 6

Open Positions: 0

U.S. based: 0 International: 0 Sales: 0 Other: 0

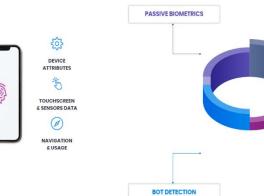


Total Funding: \$11.5M

BEHAVIORAL ANOMALIES

DEVICE INTELLIGENCE

Key Investors: Arvato Financial Solutions Rafael Development Corporation





SIXGILL

Founded: 2014 Revenue: <\$25M www.cybersixgill.com 972.73.3236855 Derech Menachem Begin 132 Tel Aviv, Israel 6701101

sixgill

Company Summary: Provides threat intelligence for monitoring the cyber threat landscape and dark web. Leveraging advanced behavioral analytics and data mining technology with highly automated data collection that feeds into an extensive data lake, Sixgill provides a unique threat intelligence that is hyper scalable and fully covert. The information enables customers to confidently fight fraud, maximize incident response and preemptively protect their organization's critical assets.

Key Officers:

Sharon Wagner – CEO Avi Kasztan – Co-founder & CBDO Elad Lavi – Co-founder & CTO Meira Primes – CMO Ross Hogan – CRO Dikla Pinto – CFO Ron Shamir – VP, Products & Tech. Alliances Omer Carmi – VP, Intelligence Ophir Cohen – VP, Customer Success Dafna Grinfeld – VP, R&D

Patha Grinfeld – VP,

Board of Directors: Not Listed

Headcount: <50

Open Positions: 0

U.S. based: 0 International: 0 Sales: 0 Other: 0

Competition:

RiskIQ Digital Shadows Intsights

Total Funding: \$21M

- Key Investors:
- Elron OurCrowd Terra Venture Partners Sonae IM REV Venture Partners

Source: Company website, all revenues are CY-19



Sixgill pioneers the Continuous Investigations/Continuous Protection[™] (CI/CP) approach to security. CI/CP uses automation tools that empower security teams to collect, analyze, research, and respond after each intel development as seamlessly as possible. Focusing on maximum security readiness at any given time, Continuous Protection naturally leads to Continuous Investigation.

THETARAY

Founded: 2013 Revenue: <\$25M www.thetaray.com 646.757.4956

8 Hanagar St. Hod HaSharon, Israel

OTHETARAY

Company Summary: ThetaRay provides faster, more accurate analytics solutions for identifying emerging risk, discovering new opportunities, and exposing blind spots within large complex data sets. Its proprietary AI algorithms detect anomalies in real time, radically reduce false positives and uncover unknown unknowns. ThetaRay's primary focus is protecting financial institutions with its Financial Crime platform, which immediately detects suspicious activity before it can disrupt operations, balloon costs, or damage brand reputation.

Key Officers:

Mark Gazit – CEO Prof. Amir Averbuch – Co-founder & CTO Shay Dovev – SVP, Sales Edward Sander – Chief Product Officer James Heinzman – EVP, Financial Services Solutions Idan Keret – Chief Customer Success Officer Barak Klein – VP, Finance Moran Goldwein – SVP, HR

Board of Directors: Not Listed

Headcount: 80

Open Positions: 6 U.S. based: 0 International: 6 Sales: 0 Other: 6

Competition: Splunk

AlienVault SolarWinds

Total Funding: \$66.5M

Key Investors: JVP SVB Capital OurCrowd FortRoss Ventures

Source: Company website, all revenues are CY-19

Why ThetaRay for Financial Services

Why financial institutions across the world leverage our solutions for fighting financial crimes.



Modernize legacy systems

Deploy rapidly and accelerate time to value with minimal disruption to existing workflows \bigtriangledown

Strengthen resiliency

Minimize impact or downtime with early detection of unknown risks and threats

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Achieve regulatory compliance

Strengthen compliance with transparent algorithmic detection

Reduce operational costs

Automate the first line of defense with accurate rules-free detection and industry low false positive levels

Future-proof detections

Without supervision, gain foresight about threats and opportunities that are moving faster than legacy systems.

UPSTREAM

Founded: 2017 Revenue: <\$25M www.upstream.auto 857.453.1134

55 E. 3rd Avenue San Mateo, CA 94401

Upstream

Company Summary: Upstream Security's C4 (Centralized Connected Car Cybersecurity) Platform is the first comprehensive automotive cybersecurity solution in the industry, purpose built for protecting connected vehicles. C4 is data-driven and designed to ingest any present and future automotive data feeds, where it is the only solution that can protect vehicles already on the road as well as vehicles and services of the future. C4 is deployed in the Automotive Cloud, between the operational network and the IT network, ensuring the protection of the communication data between the vehicles and command and control servers.

Key Officers:

Yoav Levy – Co-Founder & CEO Yonatan Appel – Co-Founder & CTO Dan Sahar – VP, Product Keren Cohen – CFO Oded Yarkoni – Head of Marketing Ron Shragai – VP, Services Roy Bachar – VP, Business Development Gil Levy – VP, Customer Success Gil Mazuz – VP, Engineering

Board of Directors:

Izhar Armony – Partner, Charles River Ventures Arik Kleinstein – Managing Partner, Glilot Capital Partners

Headcount: 50

Open Positions: 3

U.S. based: 3 International: 0 Sales: 0 Other: 3 **Competition**: Harmon Kardon Continental AG Blackberry (QNX)

Total Funding: \$41M

Key Investors: Salesforce Alliance Ventures Volvo Group Hyundai Hyundai AutoEver Nationwide Charles River Ventures Maniv Mobility Glilot Capital Partners



VDOO

Founded: 2017 Revenue: <\$25M www.vdoo.com 972.0.77.998.1161 Derech Menachem Begin 144 Tel Aviv, Israel

Company Summary: VDOO is revamping IoT security from end-to-end with security analysis automation and real-time protection technologies. Connected devices are only able to be trusted due to verification offered by security automation, certification, and active protection – all of which provide post-deployment protection. Device security is increasingly critical in a world where the device maker itself is not able to risk the reputational damage as well as legal exposure from exposed cyber vulnerabilities, making VDOO's value proposition compelling and well-timed.

Key Officers:

Netanel Davidi – Co-founder & Co-CEO Uri Alter – Co-founder & Co-CEO Asaf Karas – Co-founder & CTO Ohad Shamian – CFO Omer Schory – VP, R&D Sarit Tager – VP, Product Yaniv Nissenboim – VP, Business Development Ilya Khivrich – Chief Scientist

Board of Directors:

Lip-Bu Tan – Founding Partner, WRVI Capital Glenn Solomon – Managing Partner, GGV Capital David Strohm – Partner, Greylock Partners Gil Goren – Partner, 83North Uri Alter – Co-founder & President, VDOO Netanel Davidi – Co-founder & CEO, VDOO

Headcount: <50

Open Positions: 6

U.S. based: 1 International: 5 Sales: 5 Other: 1 Competition: Mandiant (FEYE) Attack IQ Cymulate

Total Funding: \$45M

Key Investors:

83North Dell Technology Capital WRVI Capital GGV Capital NTT DOCOMO Ventures MS&AD ventures Joseph M. Tucci Victor Tsao Avigdor Willenz

Source: Company website, all revenues are CY-19

IoT security enablement based on the unique supply chain, market, and technology challenges

Security by Design	Sense of Security		Runtime Protection		Predictive Security
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VOTIRO

Founded: 2009 Revenue: <\$25M www.votiro.com 415.231.3725 126 Yigal Alon St., 3rd Floor Tel Aviv, Israel

VOTIRC

Company Summary: Established in 2010 by a team of senior cybersecurity experts, Votiro develops and licenses the File Disarmer, a security solution based on proprietary Content Disarm & Reconstruction (CDR) technology. Its proprietary next-generation CDR technology allows users to safely open email attachments, download and transfer files, share content, and use removable media, while keeping performance and functionality intact.

Competition:

Checkpoint

Symantec

Opswat

Microsoft

Key Officers:

Aviv Grafi – Founder & CEO Regev Livne – CFO Judith Wahnon – VP, Marketing Yehuda Neeman – VP, R&D Alon Blum – Head of Product

Board of Directors: Chris Fedde – CEO, Bandura Cyber Andrew Wilson – CEO, Senetas Francis Galbally – Chairman, Allotz.com Ltd. Daniel Sekers – Chairman & Non-Executive Director, Votiro

Headcount: 40

Open Positions: 0

U.S. based: 0 International: 0 Sales: 0 Other: 0

> Step 3 Step 1 Step 2 Step 4 Unknown file being recieved Deliver a 100% safe file Dissecting into content. Rebuilding the content on top of a safe file templates templates, objects Content ? nent.xml (i) Replace with a safe pre-set element oleObject bin Process any embeded object nt_Types].xml (Analyze content directory app.xml () Replace with a safe pre-se core.xml ① *Example file type: Word Document. Container Re-package the file

Key Investors: Senetas Divergent Group Redfield Asset Management

Total Funding: \$14M

WhiteSource

WHITESOURCE SOFTWARE

Founded: 2011 Revenue: \$25-\$50M www.whitesourcesoftware.com 212.203.0391

7 Metzada St. B.S.R. 4 Bnei Brak, Israel 5126237

Company Summary: It is estimated in the next few years that 60-80% of applications will be based on open source components, yet there are very few companies who are tackling the problems associated with open source security. Founded in 2011, WhiteSource offers the only all-in-one security, licensing, quality, and reporting solution for managing open source components, and it is the only one that operates in real-time. WhiteSource accomplishes this by continuously and automatically scanning open source repositories and cross-referencing the data with customers' own open-source components.

Key Officers:

Rami Sass – Co-founder & CEO Ron Rymon – Co-founder Azi Cohen – Co-founder & GM, North America Ilan Sidi – CFO Doron Cohen – VP, Engineering Dan Gross – VP, Business Development David Habusha – VP, Product Maya Rotenberg – VP, Marketing

Board of Directors: Ron Rymon – Co-founder, WhiteSource Erez Ofer – Partner, 83North Lior Shahory – Partner, Peregrine Ventures Boaz Lifschitz – Co-founder, Peregrine Ventures

Competition:

Checkmarx Synopsys (Black Duck Software) Veracode

Total Funding: \$47M

Key Investors: 83North M12 SGE Susquehanna Growth Equity

Headcount: 220

Open Positions: 13 U.S. based: 2 International: 11 Sales: 0 Other: 13

Source: Company website, all revenues are CY-19



Completeness

A one-stop-shop for all of your open source usage regardless of your languages or environments, including containers and serverless. We also support all groups in your organization: Security, Developers, DevOps, Legal, and Management.



Prioritization

Focus on what really matters. We help you to prioritize the security vulnerabilities that actually impact your products, and ensure there are no false positives.



Remediation

Alerts are great, and we also provide the fix. Automatically generate fix pull requests, get direct links to suggested fixes, optimize remediation with full trace analysis and initiate automated workflows including issue tracker integration.

XM CYBER

XXXXM CYBE

Founded: 2016 Revenue: <\$25M www.xmcyber.com 972.0.3.978.6668

Herzliya 4685206 Israel

Company Summary: XM Cyber provides the first fully-automated breach and attack (BAS) simulation platform to emulate, validate, and remediate all attack vectors below and above the surface into any critical organizational asset. The team pioneers purple teaming, with red team efforts in terms of APT perspective and blue teaming in terms of remediation pathways and insights on security investments. This is all conducted 24x7 without disruption to network availability or user experience in order to expose network blind spots via the most sophisticated attack simulation technique to always stay on pace with hacker ingenuity. With XM Cyber, businesses are able to optimize their cyber resources to maintain data privacy and gain customer trust.

Key Officers:

Noam Erez – Co-founder & CEO Tamir Pardo – Co-founder & President Boaz Gorodissky – Co-founder & CTO Menachem Shafran – VP, Product Ronen Segal – VP, R&D Richard Benigno – SVP, Global Sales Raz Kotler – VP, Customer Operations Gil Hazaz – VP, Sales EMEA & APAC

Board of Directors:

Not Listed

Headcount: 65

Open Positions: 5

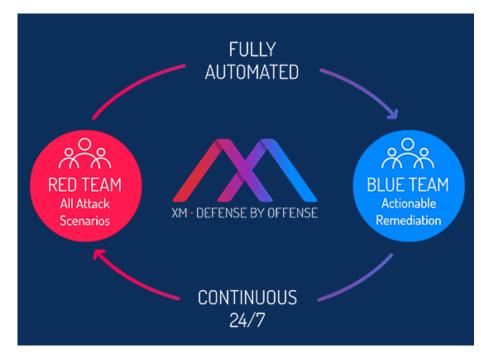
U.S. based: 0 International: 5 Sales: 2 Other: 3

Competition:

Cymulate SafeBreach

Total Funding: \$37M

Key Investors: Macquarie Capital Nasdaq Ventures Our Innovation Fund UST Global Swarth Group





ANALYST BIOGRAPHIES



Erik Suppiger Managing Director esuppiger@jmpsecurities.com 415-835-3918

Erik Suppiger is a Managing Director and senior research analyst covering cybersecurity and IT infrastructure.

Prior to joining JMP, Erik was a managing director and senior analyst at Signal Hill Capital covering Internet infrastructure technology and services. He was previously a managing

director and senior analyst at Pacific Growth Equities and a senior analyst at J.P. Morgan and its predecessor, Hambrecht & Quist. Early in his career, Erik focused on the communications sector as a member of the Deutsche Bank DMG Technology Group.

Erik ranked third among all stock pickers in the Software category of the 2014 StarMine Analyst Awards. In the 2010 StarMine Analyst Awards, he ranked as the top stock picker in both the Communications Equipment category and the Internet Software & Services category. Also in 2010, Erik placed first in the Telecommunications Equipment category and second in the Internet & Computer Services category in the annual "Best on the Street" analyst survey conducted by The Wall Street Journal. In 2005, he placed second in the Communications Equipment category in the "Best Brokerage Analysts" rankings released by Forbes.com in conjunction with StarMine.

Erik holds a B.S. in business administration from the Boston University School of Management



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Rustam Kanga is an Associate covering the cybersecurity and IT infrastructure sectors.

Mr. Kanga joined JMP in 2019 after transitioning from a career in enterprise technology sales at Oracle. He was responsible for both cloud and on-premise platform, infrastructure, and database offerings for a sub-set of Oracle's Fortune 500 accounts. Mr. Kanga led multiple, complex six-figure selling engagements and was awarded Top Performer for License Technology Sales across Enterprise Named Accounts in F2Q19.

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