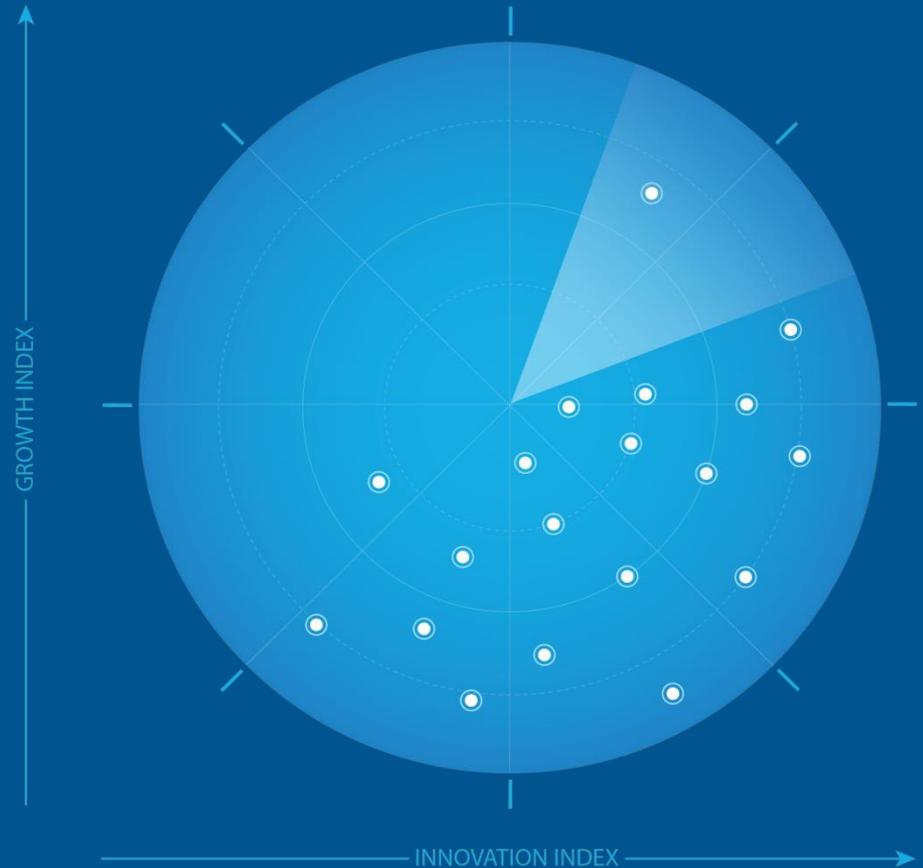


# Frost Radar™: User and Entity Behaviour Analytics Based on Machine Learning, 2020

A Benchmarking System  
to Spark Companies to  
Action - Innovation that  
Fuels New Deal Flow and  
Growth Pipelines

Global Information &  
Communications Technologies  
Research Team at  
Frost & Sullivan



# Contents

Section	Slide Number
<a href="#">Strategic Imperative and Growth Environment</a>	4
<a href="#">Frost Radar™: User and Entity Behaviour Analytics Based on Machine Learning</a>	8
<a href="#">Companies to Action</a>	11
• <a href="#">Darktrace</a>	12
• <a href="#">Exabeam</a>	13
• <a href="#">IBM</a>	14
• <a href="#">LinkShadow</a>	15
• <a href="#">LogRhythm</a>	16
• <a href="#">Micro Focus</a>	17
• <a href="#">Microsoft</a>	18
• <a href="#">Splunk</a>	19
• <a href="#">Vectra AI</a>	20

# Contents (continued)

Section	Slide Number
<a href="#">Strategic Insights</a>	21
<a href="#">Next Steps: Leveraging the Frost Radar™ to Empower Key Stakeholders</a>	23
• <a href="#">Significance of Being on the Frost Radar™</a>	24
• <a href="#">CEO's Growth Team</a>	25
• <a href="#">Investors</a>	26
• <a href="#">Customers</a>	27
• <a href="#">Board of Directors</a>	28
<a href="#">Frost Radar™ Analytics</a>	29

# Strategic Imperative and Growth Environment



# Strategic Imperative

- It is becoming crucial for organisations to have security tools that analyse the behaviour of users who are connected to its network, and entities or endpoints such as servers and applications, to detect anomalies. Organisations need to keep track of where users usually log in and what applications or file servers they use to determine their degree of access and risk.
- Artificial intelligence (AI) techniques, including supervised and unsupervised machine learning (ML), allow threat scores to be built for all users and entities, even as they track and correlate apparently unrelated security events over long periods of time. By measuring the changes and/or anomalies associated with each entity and intelligently correlating them, user and entity behaviour analytics (UEBA) tools identify advanced threats emanating from attackers who appear to be legitimate employees.
- Security information and event management (SIEM) tools come into play to cover the detection and collocation puzzle, but they typically lack effective and intelligent threat detection and response. SIEM tools can be bypassed by advanced attackers or insiders with relative ease, and focus more on real-time threats than persistent threats.
- UEBA tools resolve several of the challenges faced by SIEM. For a start, they reduce the incidence of false positives and enable alerts to be prioritized, allowing security professionals to focus on the most credible and high-risk alerts. They monitor atypical user behaviour on external resources such as cloud services, mobile devices, and Internet of Things (IoT) assets, save time by analysing user behaviour, and provide automated incident response.

Source: Frost & Sullivan

# Strategic Imperative (continued)

- Threat hunting platforms, on the top, come to bridge the gap between the time of the attacks and the time to detecting them, reducing dwell time drastically. Threat hunting platforms are tools for collecting and managing various data from networks and systems, and are also equipped with advanced search, visualization, and analytics capabilities to automate the detection of anomalies associated with potential cyber threats.

# Growth Environment

- The growing number of insider threats is tremendously impacting not only organisational data security, but also national and economic data security. As examples, in 2017 the WannaCry ransomware held hostage public and private organisations in healthcare, telecommunications, and logistics in 150 countries and caused losses estimated at US\$4 billion; in 2018, Meltdown and Spectre were exposed as perhaps the biggest cyber threats of all, showing that vulnerabilities are not just in software but hardware too.
- As the number of under-the-radar attacks increases, it will become nearly impossible for security staff to analyse and investigate them and effectively take action: The need for UEBA solutions based on ML and backed by threat hunting is greater than ever.
- UEBA market growth is attributed to the increasing use of cloud computing services, which create a broader threat spectrum for organisations. Real-time cybersecurity analytics give organisations immediate visibility of users and their devices, and allow them to make real-time decisions regarding threats and attacks. Progress in ML technology and data analysis techniques also is driving the market.

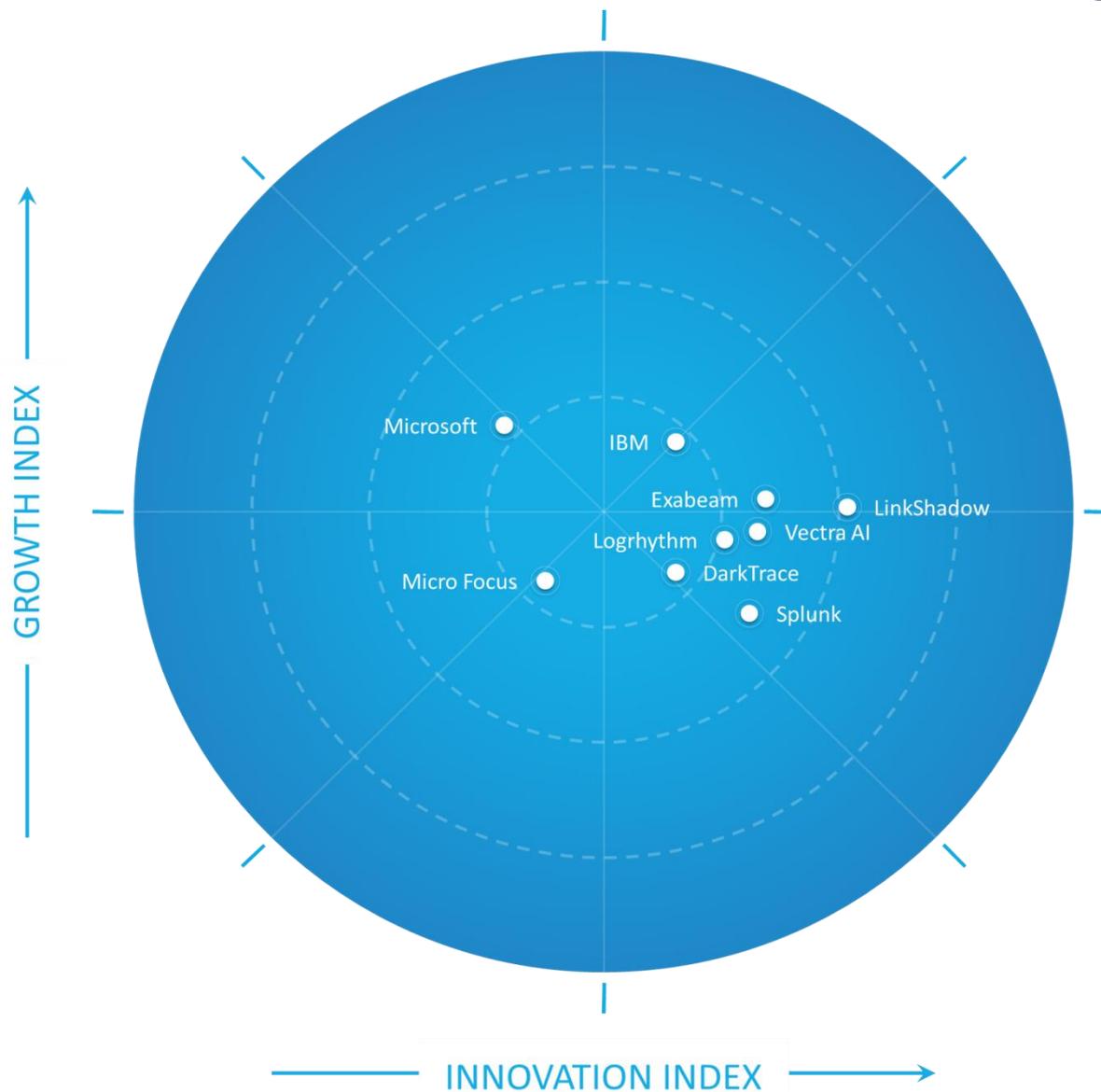
Source: Frost & Sullivan



## **Frost Radar™**

**User and Entity  
Behaviour Analytics  
Based on Machine  
Learning**

# Frost Radar™: UEBA Based on Machine Learning



Source: Frost & Sullivan

# Frost Radar™: Competitive Environment

- The market is highly concentrated. In a field of about 20 global industry participants, Frost & Sullivan independently plotted the top 9 companies in this Frost Radar™ analysis.
- Six companies are clustered in one area because they are either relatively new or have newly introduced UEBA in their service portfolio. The competition amongst these 6 companies is extremely high, with each differentiating itself by technical features, customer alignment, or R&D focus.
- LinkShadow stands out in this group with a stronger position on the Innovation index because of features that none of the rivals have.
- IBM is considered the highest in growth, primarily because of its large client base and broad portfolio. However, IBM's growth is not strong enough to position it higher on the index.
- Despite Microsoft having the highest market penetration among the studied companies, its Advanced Threat Analytics solution is not generating any money because it is delivered for free in a bundled security package. Its high growth position on the Frost Radar™ is attributed to the high growth of its Enterprise Mobility Security solution and its strong presence in the market. Microsoft is lower than others on the Innovation index, however, because of lower-than-average R&D activities in UEBA.

Source: Frost & Sullivan

# **Companies to Action**

## **Companies to be Considered First for Investment, Partnerships, or Benchmarking**

# Darktrace

## FROST RADAR™ LOCATION

- Darktrace is a world-leading cyber AI solution. It protects against threats across the enterprise that may come from different sources such as, email, cloud, SaaS, and IoT.
- In 2016, Darktrace's leadership in AI was reinforced with the launch of the first-ever autonomous response technology, Darktrace Antigena.
- Darktrace scored lower than many of its rivals on the Frost Radar™.

## GROWTH

- Most of Darktrace's products defend companies of all types and sizes. It has a total of 3,500 customers spread across 110 countries.
- Darktrace leverages its customer base to define a clear growth pipeline™ from adjacent markets.
- Its prices are considerably higher than rivals.

## INNOVATION

- Despite the fact that Darktrace is a leading cybersecurity AI, and its Enterprise Immune System is a major product, it doesn't utilize supervised ML, unlike most innovative rivals.
- Darktrace integrates with SIEM but it cannot detect indicators of compromise (IoCs), which makes it inefficient in detecting attacks to act quickly to prevent breaches from occurring or limit damages by stopping attacks in earlier stages.
- Darktrace provides entity behavioural analytics and user profiling but is still lacking of full UEBA and threat hunting functionalities.

## NEXT STEPS

- Darktrace has the great potential to leverage its large customer base to introduce more innovative products, especially in the UEBA and threat hunting, which will require more of an R&D focus.
- Darktrace should truly focus on moving from an anomaly detection approach to behavioral detection, which is a big move that would require a change in its current strategy and investment.

Source: Frost & Sullivan

# Exabeam

## FROST RADAR™ LOCATION

- The Exabeam Security Management Platform (SMP) is a modern SIEM. It is composed of 8 products, the most innovative of which are Exabeam Threat Hunter and Exabeam Entity Analytics.
- Exabeam is positioned closest to LinkShadow, the most innovative rival on the Frost Radar™.

## GROWTH

- Exabeam has seamlessly integrated sales and marketing to strengthen its brand and drive demand generation, with initiatives contributing to more than half its growth in the last 3 years.
- Exabeam's pricing model is simple: it is not based on volume, but rather on the number of employees in the organization per product.
- Exabeam has a well-established partner program, which boosted its growth compared to its closest rivals, but its partnerships are not equally active around the world.
- Its Threat Intelligence comes at an additional price.

## INNOVATION

- Exabeam has a patented "stateful user tracking" technology that leverages ML and associates all events and security alerts back to relevant users, then stitches them together into a chronological timeline.
- The Exabeam Threat Hunter capability allows security professionals to query the platform to find all users whose sessions contain specific activities or attributes.
- Exabeam Threat Intelligence uncovers potential threats with real-time insight into IoC. Vectra AI and LinkShadow also provide this.

## NEXT STEPS

- To boost its sales further, Exabeam should include Entity Analytics in its EPM pricing rather than sell it separately.
- Exabeam should leverage its partner program and its operation to strengthen its position in the rich Middle East market.

Source: Frost & Sullivan

## FROST RADAR™ LOCATION

- IBM QRadar SIEM sits at the core of the IBM QRadar Security Platform, which is comprehensive and brings together log management SIEM, network analysis, vulnerability management, user behaviour analytics, threat intelligence, and AI-powered investigations.
- IBM is positioned second highest on Growth index, but behind a few rivals on the Innovation index.

## GROWTH

- IBM has extensive internal resources and partnerships to support sales and operations, including managed services for QRadar, across multiple geographies, which obviously drives the growth of QRadar.
- The company is one of the leaders in developing and communicating a strong vision and strategy that are aligned and future focused, fostering effective execution that translates into consistent growth.
- QRadar SIEM and other integral solutions have steep learning curves for security administrators to master.
- Full orchestration and automation, and threat hunting capabilities, come at a premium price.

## INNOVATION

- IBM is one of the leaders in R&D investment with a well-established technology strategy/roadmap. This is applied for IBM QRadar as well.
- For the full capabilities of IBM QRadar Security Platform, including security orchestration, automation, and response (SOAR); user behaviour analytics; and threat hunting, organizations need to integrate multiple solutions into the QRadar SIEM, which boosts the cost and human resources required to Implement and operate. Rivals provide these features together in one solution.

## NEXT STEPS

- IBM QRadar provide user behaviour analytics powered by ML but not entity behaviour analytics, which IBM should seriously consider adding in its security portfolio.
- IBM should consider applying ML on the logs and network traffic to eliminate the risk of internal or external hackers bypassing the network rules.

Source: Frost & Sullivan

# LinkShadow

## FROST RADAR™ LOCATION

- LinkShadow is a next-generation cybersecurity analytics company that provides unparalleled detection of even the most sophisticated threats.
- LinkShadow delivers supreme solutions that include behavioural analytics, threat intelligence, insider threat management, privileged users analytics, network security optimization, application security visibility, risk scoring and prioritization, ML and statistical analysis, and anomaly detection and predictive analytics.
- LinkShadow scored the highest on the Frost Radar™ Innovation index, and has a moderate score on the Growth index.

## GROWTH

- LinkShadow has a more steadily evolving growth pipeline™ system and is growing its revenue, but most of its growth is coming from current core markets.
- LinkShadow has seamlessly integrated sales and marketing to strengthen brand and drive demand, with initiatives contributing to more than half its growth in the past 2 years.
- Growth primarily is driven by its flexibility to fulfil client requests that rivals cannot commit to, such as developing an agent deployment in addition to its agentless deployment.
- Unlike others, LinkShadow offers its solution on a perpetual model.

## INNOVATION

- The main differentiator of LinkShadow is that it provides UEBA, intelligence-driven threat hunting, insider threat detection, and comprehensive management (CXO) dashboard in a single solution with one price.
- LinkShadow is the only company that provides behavioural analytics leveraging the capabilities of supervised and unsupervised ML.
- It also is the only one that tracks incidents (chain of incidents), aggregates them, shows their stages, and graphically represents the attack path on a global map.

## NEXT STEPS

- Despite the fact that LinkShadow is driving its brand and demand through intensive marketing, it should build a partner program to further drive sales and market penetration; LinkShadow has the potential to grow multifold in the next few years.
- LinkShadow should establish strategic partnerships with SIEM providers and leverage joint go-to-market strategies to boost growth.

Source: Frost & Sullivan

# LogRhythm

## FROST RADAR™ LOCATION

- LogRhythm is a world leader in next-generation SIEM.
- The LogRhythm platform combines UEBA, network traffic and behaviour analytics, and SOAR in one solution.
- LogRhythm is located in a good Innovation position, but its Growth score is lower than some rivals.

## GROWTH

- LogRhythm is a single-ecosystem vendor for clients to orchestrate their security operations.
- It demonstrated a robust vision with strong customer-centric strategy execution, which translates into consistent growth.
- The platform is fairly difficult to deploy and integrate, and it has steep learning curve.

## INNOVATION

- Despite the fact that LogRhythm is offering a single-vendor ecosystem solution, the UEBA solution (UserXDR) doesn't apply its ML models to entities.
- Its AI engine lacks ML capabilities; it is scenario-based behavioural analytics. It relies on correlation rules and statistical or heuristic baselining to analyse entities.
- LogRhythm's timelines only show anomalous events, but not the normal events that occur around an anomalous one to provide context for better identification of threats. This makes the threat hunting process inefficient.

## NEXT STEPS

- LogRhythm should keep pace with its rivals, particularly in ML behavioural analytics.
- LogRhythm should concentrate more on providing timeline-based threat hunting. This is an important feature for security analysts, especially in an event-intensive environment.

Source: Frost & Sullivan

# Micro Focus

## FROST RADAR™ LOCATION

- Micro Focus ArcSight is based on an acquisition in 2017, when Micro Focus acquired ArcSight from HPE.
- Micro Focus ArcSight Enterprise Security Manager (ESM) is a next-gen SIEM that provides powerful, efficient threat detection and response through security analytics.
- The ML-based UEBA and threat hunting solution is based on multiple integrated products.
- Among profiled companies, Micro Focus lags many rivals on the Growth and Innovation indices on the Frost Radar™.

## GROWTH

- ATAR Labs (a SOAR solution acquired recently by Micro Focus), Micro Focus Inter-SET (a UEBA solution), and ArcSight together constitute an end-to-end solution for proper UEBA based on ML with threat hunting capabilities. The separate solutions add complexity and high cost dimensions to the organizations that are looking for an end-to-end UEBA solution.
- Micro Focus has developed a fully aligned vision and strategy, but is still in the early stages of executing its strategy to drive growth.

## INNOVATION

- Micro Focus has made some forays into product development, but has largely followed a “me too” approach, replicating competitors’ initiatives. Its acquisitions are the clear example of this approach.
- Micro Focus relied on acquisitions more than R&D and product development of ArcSight to bring it up to the competitors’ level in the UEBA arena.
- However, Micro Focus derives success from a wide range of products and from strengthening its product portfolio.

## NEXT STEPS

- Despite the fact that Micro Focus is actively acquiring companies to keep up with competition in the ML-based UEBA arena, it still needs considerable time to develop an end-to-end competitive solution. Micro Focus has to put tremendous efforts on its product development strategy and R&D, especially on the IoC and timeline-based threat hunting.
- The price for the end-to-end solution should be competitive, which will be quite challenging to Micro Focus to achieve in the near future.

Source: Frost & Sullivan

# Microsoft

## FROST RADAR™ LOCATION

- Microsoft Advanced Threat Analytics (ATA) is based on an acquired start-up company called Aorato.
- Microsoft ATA is part of the Microsoft Enterprise Mobility Security Suite.
- Microsoft ATA is a behaviour analytics tool, and it could be integrated with multiple data-sources such as SIEM, Windows Event Controller, and Domain Controller.
- Microsoft ATA scored the lowest for Innovation but it is the Growth leader on the Frost Radar™.

## GROWTH

- Microsoft ATA itself is free, and it comes in the package of Enterprise Mobility Security. Because no revenue comes from the tool itself, this dramatically impacts its Growth score on Frost Radar™, yet it remains the Growth leader on the Frost Radar™.
- Microsoft has demonstrated its ability to continually scale its business, diversify its offerings, and grow its revenue well above industry average.
- Microsoft ATA has a more steadily evolving growth pipeline™ driven by the Enterprise Mobility Security Suite.

## INNOVATION

- After the Aorato acquisition, Microsoft made some investment in R&D, but it is well below industry average and without a clear technology strategy.
- Microsoft ATA has a very slow product development initiative, and new product releases are still poor and not reaching the level of rivals.
- Microsoft usually executes customer satisfaction surveys to integrate' feedback into the R&D process, but it is not the case for Microsoft ATA.
- Microsoft ATA, along with LinkShadow, are the only ones that can detect threats and do behavioural analytics on Active Directory.
- Microsoft ATA produces a lot of false-positive alerts, which is not appreciated.

## NEXT STEPS

- Microsoft ATA should add the features of detecting, importing, and searching for IoCs, which will make it a more dependable solution and propel its growth.
- Microsoft should listen to its customers and become active in translating feedback into valuable features.

Source: Frost & Sullivan

## FROST RADAR™ LOCATION

- Splunk offers what it calls “the world’s first Data-to-Everything Platform.”
- Splunk has a wide range of offerings, from IT to security to DevOps.
- Splunk has 3 main security offerings: Splunk Enterprise Security (ES), Splunk UBA, and Splunk Phantom.
- Splunk is among the top innovators on the Frost Radar™ but ranks lowest in growth.

## GROWTH

- Despite the fact that 92% of Fortune 100 are Splunk clients, few use the UBA solution.
- Splunk is higher priced than what other competitors offer, which clearly impacts its growth.
- Frost & Sullivan is expecting that Splunk will continue its organic growth overall, but the specific growth from UBA solution will decline.
- Cost of implementation is another factor that will suppress the growth of the UBA solution.
- Splunk is highly scalable and customizable, but it may require intensive services for complex implementations.

## INNOVATION

- Splunk is highly customizable and gives users the ability to build their own rich reports, dashboards, and visualizations, but out-of-the-box functionality is not as deep as that of rivals.
- Splunk has a great UBA solution but it lacks the complete timeline of the user behaviour; rather, it is required for manual query to order the events. Exabeam and LinkShadow have this important feature built in.
- Detecting, importing, and searching for IoCs are not features that Splunk provides, which affects its position on the Innovation index.

## NEXT STEPS

- Splunk should work on its pricing models. The price increases dramatically as the volume of traffic increases; bundling would be much more appealing to clients and more valued.
- Splunk should provide an auto-created timeline showing all normal and abnormal behaviour in sequential order to make the work of security analysts more efficient.

Source: Frost & Sullivan

# Vectra AI

## FROST RADAR™ LOCATION

- Vectra AI is a leader in AI-based network detection and response solutions for cloud, SaaS, data centre, and enterprise infrastructures in real time.
- Vectra AI employs AI-assisted threat hunting, which empowers security analysts to perform more efficiently.
- Vectra AI is among the most innovative companies on the Frost Radar™, and achieved a moderate Growth score.

## GROWTH

- Vectra AI leverages a robust, self-sustaining growth pipeline™ with strong investment in emerging markets and products, driving more than 50% of its growth from adjacent and “blue sky” (new products for new markets) opportunities.
- Vectra AI provides entity behavioral analytics but it does not offer UBA at all.
- The price is perceived as high compared with rivals.
- Multiple integrations with third-party vendors are required to attain a proper end-to-end UEBA solution based on ML with threat hunting capabilities.

## INNOVATION

- Vectra AI employs both supervised and unsupervised learning; Vectra AI and LinkShadow are the only companies with this capability.
- Vectra AI clients can integrate threat intelligence and IoC feeds into its Cognito platform to further improve their threat detection coverage.

## NEXT STEPS

- Vectra AI should add user behaviour analysis to give the Vectra AI service portfolio a competitive edge.
- Undoubtedly, Vectra AI is one of the most innovative companies. It has the potential to score better on the Growth index in a future Frost Radar™ by lowering its prices by 20%.

Source: Frost & Sullivan

# Strategic Insights



# Strategic Insights

1

Preventive measures are no longer enough in the complex world of cyber threats. To survive, organizations must have proper security monitoring, threat detection, and real-time response techniques to stay ahead of the risks, which bodes well for this market.

2

The accelerated adoption of cloud computing means additional threats for organizations. Decisions regarding threats and attacks must be backed up by real-time cybersecurity analytics; it is crucial for organizations to uncover early signs of a breach, and remain one step ahead of hackers.

3

Customers want a comprehensive solution with all possible capabilities at the best price. Providers need a rigorous product development strategy and strong R&D investments to pull ahead in this race.

Source: Frost & Sullivan



**Next Steps:  
Leveraging the  
Frost Radar™ to  
Empower Key  
Stakeholders**

# Significance of Being on the Frost Radar™

---

Companies plotted on the Frost Radar™ are the leaders in the industry for growth, innovation, or both. They are instrumental in advancing the industry into the future.

---

## GROWTH POTENTIAL

Your organization has significant future growth potential, which makes it a Company to Action.

## BEST PRACTICES

Your organization is well positioned to shape Growth Pipeline™ best practices in your industry.

## COMPETITIVE INTENSITY

Your organization is one of the key drivers of competitive intensity in the growth environment.

## CUSTOMER VALUE

Your organization has demonstrated the ability to significantly enhance its customer value proposition.

## PARTNER POTENTIAL

Your organization is top of mind for customers, investors, value chain partners, and future talent as a significant value provider.

Source: Frost & Sullivan

# Frost Radar™ Empowers the CEO's Growth Team

## STRATEGIC IMPERATIVE

- Growth is increasingly difficult to achieve.
- Competitive intensity is high.
- More collaboration, teamwork, and focus are needed.
- The growth environment is complex.

## LEVERAGING THE FROST RADAR™

- The Growth Team has the tools needed to foster a collaborative environment among the entire management team to drive best practices.
- The Growth Team has a measurement platform to assess future growth potential.
- The Growth Team has the ability to support the CEO with a powerful Growth Pipeline™.

## NEXT STEPS

- **Growth Pipeline Audit™**
- **Growth Pipeline as a Service™**
- **Growth Pipeline™ Dialogue with Team Frost**

Source: Frost & Sullivan

# Frost Radar™ Empowers Investors

## STRATEGIC IMPERATIVE

- Deal flow is low and competition is high.
- Due diligence is hampered by industry complexity.
- Portfolio management is not effective.

## LEVERAGING THE FROST RADAR™

- Investors can focus on future growth potential by creating a powerful pipeline of Companies to Action for high-potential investments.
- Investors can perform due diligence that improves accuracy and accelerates the deal process.
- Investors can realize the maximum internal rate of return and ensure long-term success for shareholders
- Investors can continually benchmark performance with best practices for optimal portfolio management.

## NEXT STEPS

- **Growth Pipeline™ Dialogue**
- **Opportunity Universe Workshop**
- **Growth Pipeline Audit™ as Mandated Due Diligence**

Source: Frost & Sullivan

# Frost Radar™ Empowers Customers

## STRATEGIC IMPERATIVE

- Solutions are increasingly complex and have long-term implications.
- Vendor solutions can be confusing.
- Vendor volatility adds to the uncertainty.

## LEVERAGING THE FROST RADAR™

- Customers have an analytical framework to benchmark potential vendors and identify partners that will provide powerful, long-term solutions.
- Customers can evaluate the most innovative solutions and understand how different solutions would meet their needs.
- Customers gain a long-term perspective on vendor partnerships.

## NEXT STEPS

- **Growth Pipeline™ Dialogue**
- **Growth Pipeline™ Diagnostic**
- **Frost Radar™ Benchmarking System**

Source: Frost & Sullivan

# Frost Radar™ Empowers the Board of Directors

## STRATEGIC IMPERATIVE

- Growth is increasingly difficult; CEOs require guidance.
- The Growth Environment requires complex navigational skills.
- The customer value chain is changing.

## LEVERAGING THE FROST RADAR™

- The Board of Directors has a unique measurement system to ensure oversight of the company's long-term success.
- The Board of Directors has a discussion platform that centers on the driving issues, benchmarks, and best practices that will protect shareholder investment.
- The Board of Directors can ensure skillful mentoring, support, and governance of the CEO to maximize future growth potential.

## NEXT STEPS

- **Growth Pipeline Audit™**
- **Growth Pipeline as a Service™**

Source: Frost & Sullivan

# Frost Radar™ Analytics



# Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

## VERTICAL AXIS

**Growth Index (GI)** is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision; a robust growth pipeline™ system; and effective market, competitor, and end-user focused sales and marketing strategies.

## GROWTH INDEX ELEMENTS

- **GI1: MARKET SHARE (PREVIOUS 3 YEARS)**  
This is a comparison of a company's market share relative to its competitors in a given market space for the previous 3 years.
- **GI2: REVENUE GROWTH (PREVIOUS 3 YEARS)**  
This is a look at a company's revenue growth rate for the previous 3 years in the market/industry/category that forms the context for the given Frost Radar™.
- **GI3: GROWTH PIPELINE™**  
This is an evaluation of the strength and leverage of a company's growth pipeline™ system to continuously capture, analyze, and prioritize its universe of growth opportunities.
- **GI4: VISION AND STRATEGY**  
This is an assessment of how well a company's growth strategy is aligned with its vision. Are the investments that a company is making in new products and markets consistent with the stated vision?
- **GI5: SALES AND MARKETING**  
This is a measure of the effectiveness of a company's sales and marketing efforts in helping it drive demand and achieve its growth objectives.

# Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

## HORIZONTAL AXIS

**Innovation Index (II)** is a measure of a company's ability to develop products/services/solutions (with a clear understanding of disruptive Mega Trends) that are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs.

## INNOVATION INDEX ELEMENTS

- **II1: INNOVATION SCALABILITY**  
This determines whether an organization's innovations are globally scalable and applicable in both developing and mature markets, and also in adjacent and non-adjacent industry verticals.
- **II2: RESEARCH AND DEVELOPMENT**  
This is a measure of the efficacy of a company's R&D strategy, as determined by the size of its R&D investment and how it feeds the innovation pipeline.
- **II3: PRODUCT PORTFOLIO**  
This is a measure of a company's product portfolio, focusing on the relative contribution of new products to its annual revenue.
- **II4: MEGA TRENDS LEVERAGE**  
This is an assessment of a company's proactive leverage of evolving, long-term opportunities and new business models, as the foundation of its innovation pipeline. An explanation of Mega Trends can be found [here](#).
- **II5: CUSTOMER ALIGNMENT**  
This evaluates the applicability of a company's products/services/solutions to current and potential customers, as well as how its innovation strategy is influenced by evolving customer needs.

# Frost Radar™: Benchmarking Future Growth Potential

## Companies to Action

### COMPANIES TO ACTION

All companies on the Frost Radar™ are Companies to Action. **Best Practice** recipients are the companies that Frost & Sullivan considers the companies to act on now.

### GROWTH EXCELLENCE AWARD

The Growth Excellence best practice award is bestowed upon companies achieving high growth in an intensely competitive industry. This includes emerging companies making great strides in market penetration and seasoned incumbents holding on to their perch at the pinnacle of the industry.

### INNOVATION EXCELLENCE AWARD

The Innovation Excellence best practice award is bestowed upon companies that are industry leaders outperforming their competitors in this area or new market entrants contending for leadership through heavy investment in R&D and innovation.

### GROWTH INNOVATION & LEADERSHIP AWARD

The Growth Innovation Leadership (GIL) best practice award is bestowed upon companies that are market leaders at the forefront of innovation. These companies consolidate or grow their leadership position by continuously innovating and creating new products and solutions that serve the evolving needs of the customer base. These companies are also best positioned to expand the market by strategically broadening their product portfolio.

# Legal Disclaimer

Frost & Sullivan is not responsible for any incorrect information supplied by companies or users. Quantitative market information is based primarily on interviews and therefore is subject to fluctuation. Frost & Sullivan research services are limited publications containing valuable market information provided to a select group of customers. Customers acknowledge, when ordering or downloading, that Frost & Sullivan research services are for internal use and not for general publication or disclosure to third parties. No part of this research service may be given, lent, resold, or disclosed to noncustomers without written permission. Furthermore, no part may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without the permission of the publisher.

For information regarding permission, write to:

Frost & Sullivan

3211 Scott Blvd., Suite 203

Santa Clara, CA 95054

© 2020 Frost & Sullivan. All rights reserved. This document contains highly confidential information and is the sole property of Frost & Sullivan. No part of it may be circulated, quoted, copied, or otherwise reproduced without the written approval of Frost & Sullivan.