Broadcom Recognized for

2021

Technology Innovation Leadership

Global Cloud Access Security Broker Industry
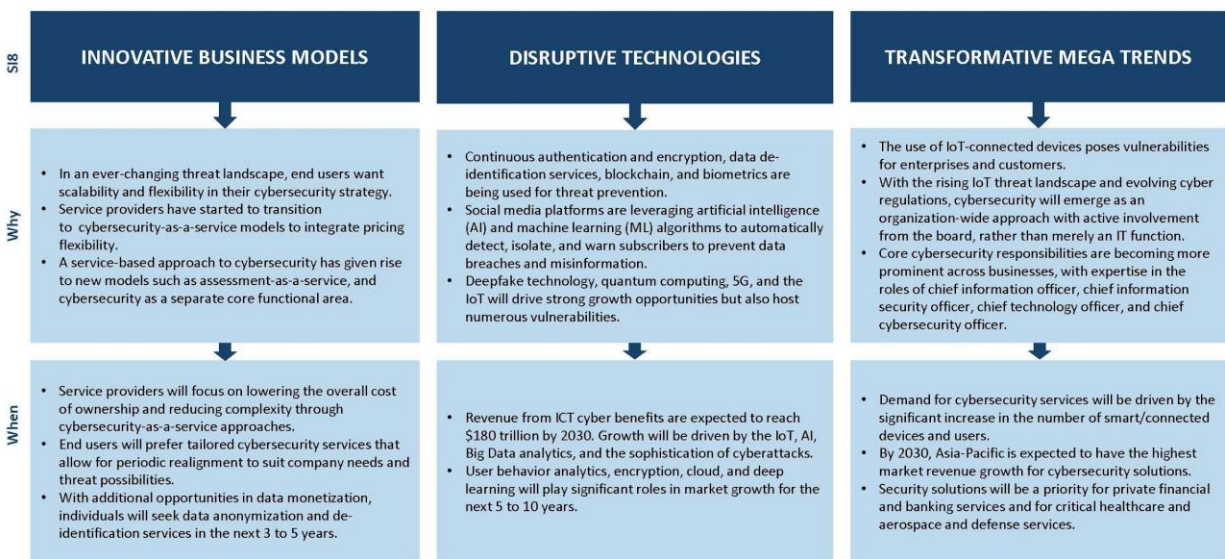*Excellence in Best Practices*

FROST & SULLIVAN

Strategic Imperatives

Frost & Sullivan identifies three key strategic imperatives that impact the cybersecurity industry: innovative business models, disruptive technologies, and transformative Mega Trends. Every company that is competing in the cybersecurity space is obligated to address these imperatives proactively; failing to do so will almost certainly lead to stagnation or decline. Successful companies overcome the challenges posed by these imperatives and leverage them to drive innovation and growth. Frost & Sullivan's recognition of Broadcom is a reflection of how well it is performing against the backdrop of these imperatives.

THE IMPACT OF THE STRATEGIC IMPERATIVE 8™ ON THE CYBERSECURITY INDUSTRY
The following 3 strategic imperatives will ensure growth in the cybersecurity industry.

SI8	INNOVATIVE BUSINESS MODELS	DISRUPTIVE TECHNOLOGIES	TRANSFORMATIVE MEGA TRENDS
Why	• In an ever-changing threat landscape, end users want scalability and flexibility in their cybersecurity strategy. • Service providers have started to transition to cybersecurity-as-a-service models to integrate pricing flexibility. • A service-based approach to cybersecurity has given rise to new models such as assessment-as-a-service, and cybersecurity as a separate core functional area.	• Continuous authentication and encryption, data de-identification services, blockchain, and biometrics are being used for threat prevention. • Social media platforms are leveraging artificial intelligence (AI) and machine learning (ML) algorithms to automatically detect, isolate, and warn subscribers to prevent data breaches and misinformation. • Deepfake technology, quantum computing, 5G, and the IoT will drive strong growth opportunities but also host numerous vulnerabilities.	• The use of IoT-connected devices poses vulnerabilities for enterprises and customers. • With the rising IoT threat landscape and evolving cyber regulations, cybersecurity will emerge as an organization-wide approach with active involvement from the board, rather than merely an IT function. • Core cybersecurity responsibilities are becoming more prominent across businesses, with expertise in the roles of chief information officer, chief information security officer, chief technology officer, and chief cybersecurity officer.
When	• Service providers will focus on lowering the overall cost of ownership and reducing complexity through cybersecurity-as-a-service approaches. • End users will prefer tailored cybersecurity services that allow for periodic realignment to suit company needs and threat possibilities. • With additional opportunities in data monetization, individuals will seek data anonymization and de-identification services in the next 3 to 5 years.	• Revenue from ICT cyber benefits are expected to reach $180 trillion by 2030. Growth will be driven by the IoT, AI, Big Data analytics, and the sophistication of cyberattacks. • User behavior analytics, encryption, cloud, and deep learning will play significant roles in market growth for the next 5 to 10 years.	• Demand for cybersecurity services will be driven by the significant increase in the number of smart/connected devices and users. • By 2030, Asia-Pacific is expected to have the highest market revenue growth for cybersecurity solutions. • Security solutions will be a priority for private financial and banking services and for critical healthcare and aerospace and defense services.

Source: Frost & Sullivan

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated companies. Broadcom excels in many of the criteria in the CASB space.

AWARD CRITERIA

Technology Leverage	Business Impact
Commitment to Innovation	Financial Performance
Commitment to Creativity	Customer Acquisition
Technology Incubation	Operational Efficiency
Commercialization Success	Growth Potential
Application Diversity	Human Capital

Commitment to Innovation

Broadcom formed the Symantec Enterprise Division in November 2019 and uses Symantec as a brand name for its cybersecurity product line that targets enterprise clients.

The Symantec name continues to hold strong brand recognition in the cybersecurity industry because of its long association with leadership in cybersecurity. Within the cloud access security broker (CASB) market, Broadcom has grown the CloudSOC solution by constantly improving and adding various functions and features. Since 2016, Broadcom (Symantec) has held a solid third place ranking in the CASB market revenues.

> *"Broadcom continues the former Symantec's long history of innovation, both organically developed and through acquisitions. Technology is leveraged across product lines, and the CloudSOC is part of the ICD platform."*
>
> *- Tony Massimini,*
> *Senior Industry Analyst*

Broadcom (Symantec) has outpaced the overall market growth, with its three-year compound annual growth rate (CAGR) (2017 to 2019) at 48.8%, the highest among the top 10 vendors. The company, therefore, has gained in market share each year since 2017. In 2019, prior to the acquisition by Broadcom, Symantec's CASB revenues grew 51.6%, leading the top 10 vendors and resulting in a market share gain of 1.3 percentage points, reaching a 14% market share.

Broadcom continues the former Symantec's long history of innovation, both organically and through acquisitions. Since Symantec's acquisition of CloudSOC in 2015, Broadcom has been developing and evolving its CASB solution. CloudSOC is an essential part of the Integrated Cyber Defense (ICD) strategy (July 2019) for software-as-a-service (SaaS), infrastructure-as-a-service (IaaS), and Zero Trust. The company develops technology integrations across product lines. For example, CloudSOC integrates with Symantec Data Loss Prevention (DLP) for an end-to-end enterprise DLP solution, where a single DLP policy is applied to data loss channels. Other innovations include adding user behavior analytics (UEBA) functionality, discovering Shadow IT, enforcing the policy of

Shadow IT (integration with secure web gateway or firewall), integrating with a wide range of user authentication/MFA/SSO solutions, and customizing dashboards and reports.

Among the most innovative capabilities of CloudSOC is Mirror Gateway, a solution for secure access to corporate resources from unmanaged devices. It provides an agentless, non-intrusive architecture to extend inline protection to unmanaged devices and remote users accessing corporate resources (such as via BYOD). Mirror Gateway leverages the customer's Identity Provider infrastructure and Symantec Remote Browser Isolation technology to support a wide range of real-time use cases including threat protection and sensitive content scanning of files. Granular policies can be applied to block both upload/download and copy/paste of sensitive information.

Broadcom's roadmap confirms the continued progression in its ability to support customers' hybrid and all-cloud deployment preferences and the continued advancement in threat prevention and information security/data compliance capabilities.

Commitment to Creativity

Broadcom works with public cloud providers but has its own private cloud as well. The company's CloudSOC platform is based on a distributed, web-scale architecture with global coverage. CASB is part of a comprehensive portfolio of advanced security services, and the security stack is easily available to customers. The company has been focused on developing cloud solutions for several years and is embracing the principles of both Zero Trust and Secure Access Service Edge (SASE) models.

Application Diversity

In July 2017, Broadcom acquired Fireglass, a leading vendor of an agentless, browserless isolation solution that eliminates ransomware, malware, and phishing threats. Broadcom has integrated the Fireglass isolation technology into several of its security solutions. Broadcom has integrated this technology into its secure web gateway (SWG) capability and is leveraging it for CASB. Some customers use an all-gateway approach in-line, whereas other customers use an application programming interface (API); however, Broadcom supports both.

Broadcom acquired Bay Dynamics in early 2020 for its UEBA technology, which will be integrated into its CASB solution. In addition, the company acquired Luminate Security in February 2019 for its cloud-native technology. Secure Access Cloud the software-defined perimeter technology (SDP) provides a unified security stack.

Commercialization Success

Broadcom's roadmap covers additional integrations across its broad portfolio, along with continued investments in orchestrations. The company is a leading vendor in several areas, such as endpoint security, email security, secure web gateway, and DLP. Broadcom is positioned for market leadership in integrated cloud security by investing in leading-edge solutions in the aforementioned cybersecurity markets. As a longtime leader in DLP, Broadcom offers unified DLP and UEBA with contextual information. In other security solutions, such as endpoint security, email, and SWG, Broadcom has delivered a steady stream of new products, features, and functions.

Financial Performance

Prior to its acquisition by Broadcom, Symantec had achieved strong steady revenue growth in CASB, far outpacing the rest of the enterprise division. In 2019, Symantec's CASB revenue grew 51.6%, the highest among the top vendors, resulting in a market share gain of 1.3 percentage points and reaching a 14% market share and a solid third place position.

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> *- Tony Massimini,*
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Leading up to Broadcom's acquisition of Symantec Enterprise Division in November 2019, Symantec had seen a three year compound annual growth rate (CAGR) of 48.8% for CASB, resulting in market share gains during each year. Broadcom, therefore, has added a fast-growing, market-leading CASB solution to its portfolio.

Growth Potential

Broadcom is one of the largest global security vendors, with its broad range of technologies and extensive global footprint for sales/support. The former Symantec product lines, now a division of Broadcom, will benefit from increased resources to drive research and development (R&D) and will increase sales and marketing support. Broadcom provides customers with an aggressive roadmap to expand their CASB capabilities, functions, and features and offers powerful components across cloud security. Moreover, the company leverages technologies across its product portfolio, resulting in a renewal rate close to 90% for customer retention.

Broadcom has added over 50 new customers through fiscal Q3 2020, which is a cumulative year-over-year increase of 20%, in terms of number of seats.

Conclusion

Broadcom has achieved a leading position in the global CASB market with its acquired Symantec Enterprise Division. In the rapidly growing and dynamic CASB market, Frost & Sullivan research shows that Broadcom's Symantec Enterprise Division has been driving innovative functions and features through its organic development and key acquisitions. The company addresses customers' needs with a unified policy for managed and unmanaged devices. CASB is part of a comprehensive portfolio of advanced security services, and Broadcom is focused on developing integrated cloud security, building a global presence, and scaling its architecture for growth. The company's revenue growth has consistently outpaced competitors in the CASB market, and its Symantec Enterprise Division will benefit from increased resources to drive R&D and will increase sales and marketing support. To maintain strong growth for the foreseeable future, Broadcom is well positioned in the market through its aggressive roadmap and technology development.

With its strong overall performance, Broadcom has earned Frost & Sullivan's 2021 Technology Innovation Leadership Award in the global CASB industry.

What You Need to Know about the Technology Innovation Leadership Recognition

Frost & Sullivan's Technology Innovation Award recognizes the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

Best Practices Award Analysis

For the Technology Innovation Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Business Impact

Financial Performance: Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at http://www.frost.com.

The Growth Pipeline Engine™

Frost & Sullivan's proprietary model to systematically create on-going growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

Learn more.

Key Impacts:

- **Growth Pipeline:** *Continuous flow of Growth opportunities*
- **Growth Strategies:** *Proven Best Practices*
- **Innovation Culture:** *Optimized Customer Experience*
- **ROI & Margin:** *Implementation Excellence*
- **Transformational Growth:** *Industry Leadership*

The Innovation Generator™

Our six analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- Mega Trend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)