

F R O S T & S U L L I V A N

FROST & SULLIVAN BEST PRACTICES AWARD

IDENTITY AND ACCESS MANAGEMENT - GLOBAL

Technology Innovation 2019



FROST & SULLIVAN

2019

BEST
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AWARD

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Background and Company Performance

Industry Challenges

The once physical security perimeter around businesses has crumbled in the face of mobility and remote access. As a result, Identity and Access Management (IAM) solutions have become an even more essential security tool for networked organizations.

The accelerated shift by all industries to cloud architectures has made it easier and less expensive for organizations to adopt IAM technologies, however, service delivery and security have become increasingly complex. Also, the wake-ups calls of security breaches around the globe and across industries—often facilitated through compromised or mismanaged identities and access practices—turned Identity and Access Management solutions from an operational choice into a business necessity. The clarion call also drove significant growth and innovation as well as increased competition among IAM suppliers.

The change in dynamics did not go unnoticed by entrepreneurs, and many companies have been launched over the last decade to meet the challenge. Today, despite an aggressive market for merger and acquisition, there are still more than 30 companies providing Identity and Access Management solutions to a dozen vertical markets. These solutions are offered in a combination of on-premises, cloud, and hybrid configurations. Cloud-based solutions such as Identity-as-a-Service (IDaaS) are the fastest growing. Many other suppliers have components of IAM such as stand-alone Single Sign-on, or password management systems. Though the market is good for suppliers of IAM solutions, the industry is being challenged in a see-saw battle against increasingly sophisticated bad actors looking to penetrate corporate defenses, often through compromised identities and credentials, and loose or coarsely defined access and authorization policies.

At the same time, businesses are struggling internally to be more efficient and enable more productive employees while protecting the assets of the company and the data of its customers. If that were not enough, emerging technologies such as virtualization and microservices architectures are changing the way systems communicate, data is shared, and solutions are developed.

These challenges are compounded by the complexity of IAM technology, which makes managing identity and access more difficult for companies to accomplish on their own. Maintaining a hybrid environment of on-premises and cloud solutions as companies advance on their paths of digital transformation further adds complexity.

Technology Attributes and Future Business Value

Industry Impact

Auth0 is an Identity and Access Management provider specializing in the delivery of Identity-as-a-Service (IDaaS) solutions. It is the way Auth0 builds and delivers its services that makes it worthy of recognition in the technology innovation category.

With origins in building an identity solution for developers, Auth0, which also calls its platform Auth0, has evolved its technology into a full enterprise platform that can be delivered as a multi-tenant cloud service running on Auth0's cloud; a dedicated cloud service running on Auth0's cloud; or a dedicated cloud service running on the customer's cloud infrastructure. Developers of business applications, to which they can attach these identity services, like the flexibility of the Auth0 platform in letting them do so.

The platform strategy is to be as open as possible to whatever the enterprise's technology needs are and takes a universal approach to identity. The platform works with the latest standards and can add authentication to any legacy application without modifying any code, simply by adding an OpenID Connect Module to the web server and configuring it to use Auth0's OIDC-conformant endpoints. The platform also supports the option for enterprises to write their own code or use Auth0's more than 100 pre-built rules, extensions and hooks that are triggered pre- and post-registration as part of one authentication flow.

Approaching the market by solving universal use cases helps Auth0 attract customers with many different identity needs, such as increasing end-user adoption of certain applications, increasing security, or dealing with M&A activity. Rather than requiring customers to seek additional vendors when they need authentication for additional audiences, Auth0 supports any use case and can continue to serve as the identity platform. Auth0's go-to-market mechanism is via direct sales and partners. It can be launched from Salesforce's Heroku Elements marketplace or Google's Cloud Platform marketplace. Auth0's platform is also listed in the AWS marketplace as a SaaS offering.

Auth0 is helping change the way organizations consume identity services and is making its universal use case strategy into a competitive go-to-market strategy. With more than 100% growth in 2017 and continued impressive growth in 2018, Auth0 is over the \$50 million mark in revenue.

Scalability

Auth0 currently authenticates more than 1.5 billion logins per month. The company has the ability to make the login experience frictionless with social logins/passwordless and other features that allows its customers to quickly grow the number of user registrations. The solution helped one UK retailer add 1.5 million new user registrations in one week during a holiday-season campaign. Auth0 was able to meet the authentication scalability necessary to support 500 authentication events per second, at approximately 200ms or less.

Auth0 also helps other companies scale. Auth0 helped a compliance and professional development training company grow from one million users to 10 million in a year by helping the company secure access to online learning systems.

Application Diversity

While Auth0's platform features are primarily comprised of Single Sign-On, Universal Login, Breached Passwords Detection, Multi-factor Authentication, and User Management, the diversity comes in the number of different uses cases to which these solutions can be applied and how they, as modular solutions, can be packaged. Because the Auth0 platform is use-case agnostic, enterprises and developers can connect any API or application to the Auth0 platform, regardless of the language with which it is written or the stack on which it exists. Auth0 has more than 65 software development kits and several customizable user interfaces. Users can write their own code or choose from more than 100 pre-built rules and extensions.

Financial Performance

After launching in 2013 and attracting several rounds of funding since, Auth0 grew its revenue by 100% in 2017 and 80% in 2018. The company's biggest vertical market is the B2B SaaS sector followed by insurance/financial services, then media. Auth0's work with developers drives its success in the technology sector. In May 2018, Auth0 raised another \$55 million in funding, pushing its total of five funding rounds to \$110 million. The company was named to Forbes 2018 Cloud 100 list of top cloud vendors globally and serves customers in more than 70 countries.

Customer Acquisition

Auth0 has been winning a lot of business in Australia and leveraging that growth to grow in the AsiaPac region overall; Auth0 is attracting customers in all aspects of IAM, including Consumer Identity and Access (CIAM) and Privileged Access Management (PAM). Auth0 has done so, in part, by addressing the developer community Auth0's customer acquisition rate has grown by helping companies improve their own acquisition rate.

Auth0 has seen fast growth in Australia, in which it established a presence in 2015. From 2017 to 2018 it had a 125% growth in customer acquisition in the region, attracting companies such as CarsGuide, Atlassian, AGL, Servcorp, and Television New Zealand. Auth0 also recently expanded into Japan and in November assigned a new country manager. Some of Auth0's latest \$55 million investment came from World Innovation Lab, which is very active in the Japan market.

Visionary Innovation

By targeting developers who can easily bring Auth0 identity and access technology into their applications, Auth0 has potentially changed the way IAM, CIAM, and PAM solutions will be

delivered in the marketplace. The approach has obviously caught the eye of investors and has put Auth0 on the speculators list for one of the next high-tech IPOs. The idea is to save developers the time, frustration, and often failure of building identity solutions for their applications and allowing them to use Auth0 tools instead through its IDaaS offering.

By decentralizing identity from application development, Auth0 enables developers to focus on building a better app, not the difficult and unnecessary challenge of incorporating identity—unnecessary because the work has already been done. As a flexible IDaaS provider, developers can effectively snap in Auth0 as an application moves from development to the testing stage.

Conclusion

Making it easy for developers to incorporate its identity platform and solutions is a great way for Auth0 to grow its market share. However, any company taking this route must first show it has proven, secure, scalable, and fast technology. In December 2018, Auth0 received Gold CSA Star certification from the Cloud Security Alliance, which does rigorous third-party assessment of security services in the cloud. The combination of proven technology, certified cloud delivery capabilities, and an innovative go to market strategy has established Auth0 as a leader in Identity and Access Management. With its strong overall performance, Auth0 has earned Frost & Sullivan's 2019 Technology Innovation Award.

Significance of Technology Innovation

Ultimately, growth in any organization depends upon finding new ways to excite the market and upon maintaining a long-term commitment to innovation. At its core, technology innovation, or any other type of innovation, can only be sustained with leadership in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding Technology Innovation

Technology innovation begins with a spark of creativity that is systematically pursued, developed, and commercialized. That spark can result from a successful partnership, a productive in-house innovation group, or a bright-minded individual. Regardless of the source, the success of any new technology is ultimately determined by its innovativeness and its impact on the business as a whole.

Key Benchmarking Criteria

For the Technology Innovation Award, Frost & Sullivan analysts independently evaluated two key factors—Technology Attributes and Future Business Value—according to the criteria identified below.

Technology Attributes

Criterion 1: Industry Impact

Requirement: Technology enables the pursuit of groundbreaking ideas, contributing to the betterment of the entire industry.

Criterion 2: Product Impact

Requirement: Specific technology helps enhance features and functionalities of the entire product line for the company.

Criterion 3: Scalability

Requirement: Technology is scalable, enabling new generations of products over time, with increasing levels of quality and functionality.

Criterion 4: Visionary Innovation

Requirement: Specific new technology represents true innovation based on a deep understanding of future needs and applications.

Criterion 5: Application Diversity

Requirement: New technology serves multiple products, multiple applications, and multiple user environments.

Future Business Value

Criterion 1: Financial Performance

Requirement: Potential is high for strong financial performance in terms of revenues, operating margins, and other relevant financial metrics.

Criterion 2: Customer Acquisition

Requirement: Specific technology enables acquisition of new customers, even as it enhances value to current customers.

Criterion 3: Technology Licensing

Requirement: New technology displays great potential to be licensed across many sectors and applications, thereby driving incremental revenue streams.

Criterion 4: Brand Loyalty

Requirement: New technology enhances the company's brand, creating and/or nurturing brand loyalty.

Criterion 5: Human Capital

Requirement: Customer impact is enhanced through the leverage of specific technology, translating into positive impact on employee morale and retention.

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate Award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 Monitor, target, and screen	Identify Award recipient candidates from around the globe	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies 	Pipeline of candidates who potentially meet all best-practice criteria
2 Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates 	Matrix positioning of all candidates' performance relative to one another
3 Invite thought leadership in best practices	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> • Confirm best-practice criteria • Examine eligibility of all candidates • Identify any information gaps 	Detailed profiles of all ranked candidates
4 Initiate research director review	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> • Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles 	Final prioritization of all eligible candidates and companion best-practice positioning paper
5 Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> • Share findings • Strengthen cases for candidate eligibility • Prioritize candidates 	Refined list of prioritized Award candidates
6 Conduct global industry review	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> • Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates 	Final list of eligible Award candidates, representing success stories worldwide
7 Perform quality check	Develop official Award consideration materials	<ul style="list-style-type: none"> • Perform final performance benchmarking activities • Write nominations • Perform quality review 	High-quality, accurate, and creative presentation of nominees' successes
8 Reconnect with panel of industry experts	Finalize the selection of the best-practice Award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select recipient 	Decision on which company performs best against all best-practice criteria
9 Communicate recognition	Inform Award recipient of Award recognition	<ul style="list-style-type: none"> • Present Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10 Take strategic action	Upon licensing, company is able to share Award news with stakeholders and customers	<ul style="list-style-type: none"> • Coordinate media outreach • Design a marketing plan • Assess Award's role in future strategic planning 	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages more than 50 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.