

KuppingerCole Report
LEADERSHIP COMPASS

by **Martin Kuppinger** | June 2014

Cloud User and Access Management

Leaders in innovation, product features, and market reach for Cloud User and Access Management. Your compass for finding the right path in the market.



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Advisory Note: IAM Predictions and Recommendations 2014-2018 - 71120

Advisory Note: API Economy Ecosystem - 70625

Advisory Note: Secure your Cloud against Industrial Espionage - 70997

Advisory Note: Cloud IAM: More than just Single Sign-On to Cloud Applications - 71031

Executive View: Executive View Microsoft Azure RMS - 70976

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1. Management Summary

The Cloud IAM market is currently driven by products that focus on providing Single Sign-On to various Cloud services as their major feature and business benefit. This will change, with two distinct evolutions of more advanced services forming the market: Cloud-based IAM/IAG (Identity Access Management/Governance) as an alternative to on-premise IAM suites, and Cloud IAM solutions that bring a combination of directory services, user management, and access management to the Cloud.

There are many terms for what we call “Cloud IAM” for Cloud Identity and Access Management. IDaaS (Identity Management as a Service), IDaaS (Identity as a Service), and various other names are used. However, there is no common understanding of what constitutes that market segment to which vendors have taken different paths. One common denominator is Cloud Single Sign-On, which allows users to access a portal that links to “his” (or “her”) Cloud services and provides a seamless login, either based on passing through username and password or relying on Identity Federation standards.

This will change, but there will be at least two distinct approaches to Cloud IAM that overlap in their core functionality. One is Cloud-based IAM/IAG that provides Identity Provisioning and Access Governance capabilities as a Cloud service. These services in fact are a direct counterpart to established on-premise Identity Provisioning and Access Governance solutions. They will gain momentum primarily in two areas:

- Customers that are already massively relying on Cloud services or migrating a significant portion of their IT services to the Cloud. Running IAM/IAG as a service from the Cloud is simply a logical extension for these customers.
- Small and medium-sized business that do not have IAM/IAG in place but want to quick-start their deployments by relying on a standardized offering.

These types of solutions also provide good out-of-the-box integration with on-premise systems, allowing management and governance for identities and access to these services.

The second group of solutions primarily focuses on managing what we call the “new ABC: Agile Businesses: Connected”. We refer to these solutions as Cloud User and Access Management. These solutions focus on managing external users, such as business partners and customers, and their access to Cloud services and on-premise web-based applications. Commonly, these services are a combination of identity federation, self-service registration, directory services, and access management solutions, all provided as a Cloud service. Their primary business benefit is in enabling customers to:

- Rapidly and easily on-board and off-board business partners and customers;
- Manage access to Cloud services and on-premise web applications;
- Allow controlled access of internal users to Cloud applications and partner applications.

While both groups of solutions might converge in the long run, both provide far more functionality than just Cloud Single Sign-On, which will not remain sufficient for success in business.

This KuppingerCole Leadership Compass focuses on the Cloud User and Access Management market. In a separate Kuppinger Cole Leadership Compass, we analyze the Cloud IAM/IAG market and the offerings therein. We chose splitting up the Cloud IAM market overview into two separate documents due to the significant differences between these two groups of offerings. Anything else would have been comparing apples and oranges.



Fig. 1: Overall Leaders in the Cloud User and Access Management market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better].

When looking at the Overall Leaders, we see two companies which stand out: Microsoft and Ping Identity. Both benefit from the fact that they are strong in most of the three other Leadership ratings, i.e. Product Leadership, Innovation Leadership, and Market Leadership. Microsoft especially benefits from its strong market position.

Most vendors currently are in the Challengers segment. In front we see Okta and OneLogin, with Salesforce.com closely following. Closely behind these three, we see Symplified, iWelcome, SecureAuth and Telekom. SecureAuth has its strength in supporting strong authentication features, while Telekom currently is providing a specialized offering with exceptionally strong features in managing subscriptions of services and other uncommon functionalities, but a strong potential.

Exostar follows these vendors, providing a specialized solution focused on industry networks for particular industries. Thus, their approach to the market is quite different from other vendors, leading to a low rating in Market Leadership, which also affects the Overall Leadership. Finally, there is Atos. They just launched their first release of a solution with good potential, but not yet leading-edge. However, they might improve their positioning quickly when adding some of the currently lacking features in upcoming releases.



Fig. 2: Product Leaders in the Cloud User and Access Management market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better].

Product Leadership, or in this case Service Leadership, is the view where we look specifically at the functional strength and completeness of products. We see Ping Identity as the leading company here, followed by Microsoft and Okta. Notably, Microsoft has a strong potential to improve its positioning once the CPIM (Customer and Partner Identity Management) enhancement of their Azure Active Directory comes to the market.

OneLogin and iWelcome both are close to the Leader section. Symplified, Salesforce.com and SecureAuth also show overall strong offerings with a good potential of becoming future leaders. Telekom has an interesting but somewhat specialized offering which might be an excellent fit for some customers, while not suiting the needs of others. Exostar is a highly specialized offering for particular industry networks. For these, it might be the best fit, also due to its value-add services that go well beyond Cloud IAM. For customers outside of these industries, it is not the primary option.

Finally, there is Atos. The initial release of their service still has some gaps in functionality. We expect Atos to address these in upcoming versions and thus improve their market position.

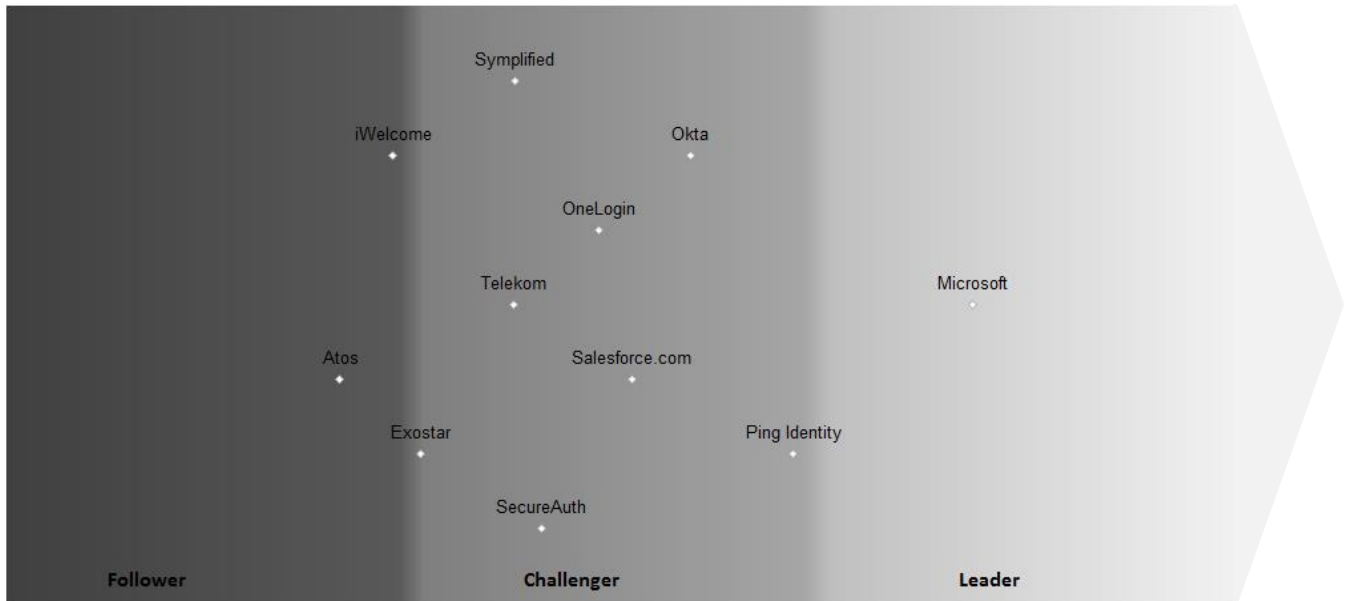


Fig. 3: Market Leaders in the Cloud User and Access Management market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better].

Looking at the Market Leadership chart, we see Microsoft being the clear leader. This is based on the fact that their Azure Active Directory on one hand shows good direct acceptance and on the other builds the foundation for widely used Microsoft Office 365. Furthermore, Microsoft has an exceptionally strong partner ecosystem.

Ping Identity as one of the established players in the market is leading the Challengers. They also can build on a significant partner base and global presence. Okta, Salesforce.com and OneLogin are next. Salesforce.com on one hand delivers the services to its customer base, but has few direct customers. The others have a growing but still relatively small customer base. Others such as Symplified, SecureAuth and Telekom are following closely.

Exostar is a specific case. Due to their focus on industry networks, they are strong in particular industries, e.g. Aerospace & Defense. However, they have a rather small partner ecosystem. The focus on only a few industries together with the partner ecosystem places them more to the left in the Market Leadership rating.

iWelcome and Atos both have a very small customer base as of now, thus currently being place in the follower section. However, being the only purely European players aside from Telekom, they might benefit from the current reluctance of many European customers regarding onboarding to US-based Cloud Service Providers.



Fig. 4: Innovation Leaders in the Cloud User and Access Management market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better].

When looking at Innovation Leadership, we again see Ping Identity and Microsoft in front, with Ping Identity being slightly ahead of Microsoft. Microsoft might further improve its position with upcoming added services to Microsoft Azure Active Directory.

Other vendors in the Leader segment include OneLogin, Okta and Salesforce.com. All three are showing a number of innovative features and a good understanding of the overall Cloud User and Access Management market. That is true as well for the next group of vendors, including iWelcome, Symplified, Telekom and SecureAuth. While being rated as Challengers as of now, all of them are close to the Leaders section.

We again see Exostar and Atos at some distance from the others. In the case of Exostar, this is subject to their specific approach to the market. In the case of Atos, there initial release still shows some gaps, which we expect Atos to address in upcoming versions.

Notably, product/service selection must not be based on such high-level comparisons only. These Leadership graphics provide a general overview of the market segment in scope. Depending on specific customer requirements, vendors more to the left might still be the best choice. Thus we strongly recommend performing a structured product/service selection and evaluation process.

2. Methodology

KuppingerCole Leadership Compass is a tool which provides an overview of a particular IT market segment and identifies the leaders in that market segment. It is the compass which assists you in identifying the vendors and products/services in a particular market segment which you should consider for product decisions.

It should be noted that it is inadequate to pick vendors based only on the information provided within this report.

Customers must always define their specific requirements and analyze in greater detail what they need. This report doesn't provide any recommendations for picking a vendor for a specific customer scenario. This can be done only based on a more thorough and comprehensive analysis of customer requirements and a more detailed mapping of these requirements to product features, i.e. a complete assessment.

We look at four types of leaders:

- **Product Leaders:** Product Leaders identify the leading-edge products in the particular market segment. These products deliver to a large extent what we expect from products in that market segment. They are mature.
- **Market Leaders:** Market Leaders are vendor which have a large, global customer base and a strong partner network to support their customers. A lack in global presence or breadth of partners can prevent a vendor from becoming a Market Leader.
- **Innovation Leaders:** Innovation Leaders are those vendors which are driving innovation in the particular market segment. They provide several of the most innovative and upcoming features we hope to see in the particular market segment.
- **Overall Leaders:** Overall Leaders are identified based on a combined rating, looking at the strength of products, the market presence, and the innovation of vendors. Overall Leaders might have slight weaknesses in some areas but become an Overall Leader by being above average in all areas.

For every area, we distinguish between three levels of products:

- **Leaders:** This identifies the Leaders as defined above. Leaders are products which are exceptionally strong in particular areas.
- **Challengers:** This level identifies products which are not yet Leaders but have specific strengths which might make them Leaders. Typically these products are also mature and might be leading-edge when looking at specific use cases and customer requirements.
- **Followers:** This group contains products which lag behind in some areas, such as having a limited feature set or only a regional presence. The best of these products might have specific strengths, making them a good or even best choice for specific use cases and customer requirements but are of limited value in other situations.

Our rating is based on a broad range of input and long experience in that market segment. Input consists of experience from KuppingerCole advisory projects, feedback from customers using the products, product documentation, and a questionnaire sent out before creating the KuppingerCole Leadership Compass, and other sources.

3. Product Rating

KuppingerCole as an analyst company regularly does evaluations of products/services and vendors. The results are, among other types of publications and services, published in the KuppingerCole Leadership Compass Reports, KuppingerCole Executive Views, KuppingerCole Product Reports, and KuppingerCole Vendor Reports. KuppingerCole uses a standardized rating to provide a quick overview on our perception of the products or vendors. Providing a quick overview of the KuppingerCole rating of products requires an approach combining clarity, accuracy, and completeness of information at a glance.

KuppingerCole uses the following categories to rate products:

- Security
- Functionality
- Integration
- Interoperability
- Usability

Security – security is measured by the degree of security within the product. Information Security is a key element and requirement in the KuppingerCole IT Model (#70129 Scenario Understanding IT Service and Security Management¹). Thus, providing a mature approach to security and having a well-defined internal security concept are key factors when evaluating products. Shortcomings such as having no or only a very coarse-grained, internal authorization concept are understood as weaknesses in security. Known security vulnerabilities and hacks are also understood as weaknesses. The rating then is based on the severity of such issues and the way a vendor deals with them.

Functionality – this is measured in relation to three factors. One is what the vendor promises to deliver. The second is the status of the industry. The third factor is what KuppingerCole would expect the industry to deliver to meet customer requirements. In mature market segments, the status of the industry and KuppingerCole expectations usually are virtually the same. In emerging markets they might differ significantly, with no single vendor meeting the expectations of KuppingerCole, thus leading to relatively low ratings for all products in that market segment. Not providing what customers can expect on average from vendors in a market segment usually leads to a degradation of the rating, unless the product provides other features or uses another approach which appears to provide customer benefits.

Integration—integration is measured by the degree in which the vendor has integrated the individual technologies or products in their portfolio. Thus, when we use the term integration, we are referring to the extent in which products interoperate with themselves. This detail can be uncovered by looking at what an administrator is required to do in the deployment, operation, management and discontinuation of the product. The degree of integration is then directly related to how much overhead this process requires. For example: if each product maintains its own set of names and passwords for every person involved, it is not well integrated. And if products use different databases or different administration tools with inconsistent user interfaces, they are not well integrated. On the other hand, if a single name and password can allow the admin to deal with all aspects of the product suite, then a better level of integration has been achieved.

¹ http://www.kuppingercole.com/report/mksecao_nderstandingiam06102011

Interoperability—interoperability also can have many meanings. We use the term “interoperability” to refer to the ability of a product to work with other vendors’ products, standards, or technologies. In this context it means the degree to which the vendor has integrated the individual products or technologies with other products or standards that are important outside of the product family. Extensibility is part of this and measured by the degree to which a vendor allows its technologies and products to be extended for the purposes of its constituents. We think Extensibility is so important that it is given equal status so as to insure its importance and understanding by both the vendor and the customer. As we move forward, just providing good documentation is inadequate. We are moving to an era when acceptable extensibility will require programmatic access through a well-documented and secure set of APIs. Refer to the Open API Economy Document (#70352 Advisory Note: The Open API Economy²) for more information about the nature and state of extensibility and interoperability.

Usability —accessibility refers to the degree in which the vendor enables the accessibility to its technologies and products to its constituencies. This typically addresses two aspects of usability – the end user view and the administrator view. Sometimes just good documentation can create adequate accessibility. However, overall we have strong expectations regarding well integrated user interfaces and a high degree of consistency across user interfaces of a product or different products of a vendor. We also expect vendors to follow common, established approaches to user interface design.

We focus on security, functionality, integration, interoperability, and usability for the following key reasons:

- Increased People Participation—Human participation in systems at any level is the highest area of cost and potential breakdown for any IT endeavor.
- Lack of Security, Functionality, Integration, Interoperability, and Usability—Lack of excellence in any of these areas will only result in increased human participation in deploying and maintaining IT systems.
- Increased Identity and Security Exposure to Failure—Increased People Participation and Lack of Security, Functionality, Integration, Interoperability, and Usability not only significantly increase costs, but inevitably lead to mistakes and breakdowns. This will create openings for attack and failure.

Thus when KuppingerCole evaluates a set of technologies or products from a given vendor, the degree of product Security, Functionality, Integration, Interoperability, and Usability which the vendor has provided is of highest importance. This is because lack of excellence in any or all of these areas will lead to inevitable identity and security breakdowns and weak infrastructure.

² http://www.kuppingercole.com/report/cb_apieconomy16122011

4. Vendor Rating

For vendors, additional ratings are used as part of the vendor evaluation. The specific areas we rate for vendors are

- Innovativeness
- Market position
- Financial strength
- Ecosystem

Innovativeness – this is measured as the capability to drive innovation in a direction which aligns with the KuppingerCole understanding of the particular market segment(s) the vendor is in. Innovation has no value by itself but needs to provide clear benefits to the customer. However, being innovative is an important factor for trust in vendors, because innovative vendors are more likely to remain leading-edge. An important element of this dimension of the KuppingerCole ratings is the support of standardization initiatives if applicable. Driving innovation without standardization frequently leads to lock-in scenarios. Thus active participation in standardization initiatives adds to the positive rating of innovativeness.

Market position – measures the position the vendor has in the market or the relevant market segments. This is an average rating over all markets in which a vendor is active, e.g. being weak in one segment doesn't lead to a very low overall rating. This factor takes into account the vendor's presence in major markets.

Financial strength – even while KuppingerCole doesn't consider size to be a value by itself, financial strength is an important factor for customers when making decisions. In general, publicly available financial information is an important factor therein. Companies which are venture-financed are in general more likely to become an acquisition target, with massive risks for the execution of the vendor's roadmap.

Ecosystem – this dimension looks at the ecosystem of the vendor. It focuses mainly on the partner base of a vendor and the approach the vendor takes to act as a "good citizen" in heterogeneous IT environments.

Again, please note that in KuppingerCole Leadership Compass documents, most of these ratings apply to the specific product and market segment covered in the analysis, not to the overall rating of the vendor.

5. Vendor Coverage

KuppingerCole tries to include all vendors within a specific market segment in their Leadership Compass documents. The scope of the document is global coverage, including vendors which are only active in regional markets such as Germany, Russia, or the US.

However, there might be vendors which don't appear in a Leadership Compass document due to various reasons:

- **Limited market visibility:** There might be vendors and products which are not on our radar yet, despite our continuous market research and work with advisory customers. This usually is a clear indicator of a lack in Market Leadership.
- **Denial of participation:** Vendors might decide on not participating in our evaluation and refuse to become part of the Leadership Compass document. KuppingerCole tends to include their products anyway as long as sufficient information for evaluation is available, thus providing a comprehensive overview of leaders in the particular market segment.
- **Lack of information supply:** Products of vendors which don't provide the information we have requested for the Leadership Compass document will not appear in the document unless we have access to sufficient information from other sources.
- **Borderline classification:** Some products might have only small overlap with the market segment we are analyzing. In these cases we might decide not to include the product in that KuppingerCole Leadership Compass.

The target is providing a comprehensive view of the products in a market segment. KuppingerCole will provide regular updates on their Leadership Compass documents.

For this KuppingerCole Leadership Compass on Cloud User and Access Management, a number of players in the market declined their participation. This is mainly due to upcoming major changes in their service offerings or because they haven't yet delivered their offerings to the market.

We provide a quick overview about these vendors and their Cloud User and Access Management offerings in chapter

14. Vendors and Market Segments to watch. In that chapter we also look at some other interesting offerings around the Cloud User and Access Management market and in related market segments.

6. Market Segment

The part of Cloud IAM we refer to as Cloud User and Access Management focuses on the one hand on providing seamless access to Cloud services for internal users. On the other hand, it supports managing external users and their access. This includes user types such as business partners and customers and their access to various types of services.

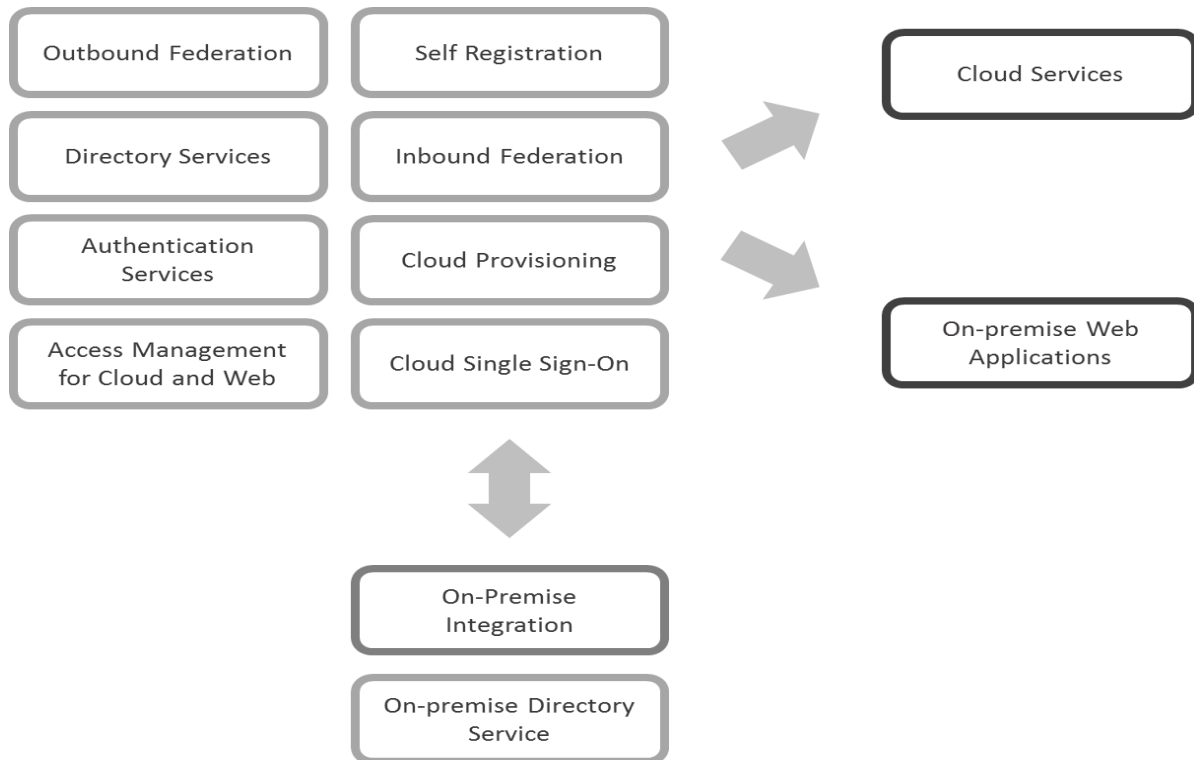


Fig. 5: The main building blocks of Cloud User and Access Management.

These solutions consist of a number of technical features. At the core we see:

- Directory Services for managing the users. These services must provide massive scalability, enabling organizations to deal efficiently with millions of customers. They also must provide a highly flexible schema (data structure) that allows managing different types of users and their respective attributes, but also managing relationships between various objects within the directory.
- Inbound Federation and Self-Registration. While inbound federation support focuses on the rapid on-boarding of users from business partners that already have an Identity Federation infrastructure in place, self-registration capabilities are mandatory for other business partners and customers. Identity Federation also will gain momentum in the customer space, when relying on external Identity Providers.
- Authentication support, allowing configuration of the authentication requirements, step-up authentication based on risk and context, etc. We also expect to see significant support for upcoming standards that allow flexibly relying on existing strong authentication methods, such as the FIDO Alliance standard.
- Outbound Federation and Single Sign-On, providing access to Cloud services and web applications. This also includes Cloud Provisioning, i.e. the ability to provision users to Cloud services.
- Access Management capabilities that allow configuring flexible policies for controlling access to Cloud service and web applications. Beyond just granting access, the ability for at least coarse-grained authorization management is a key capability for Cloud User and Access Management.

Beyond these core capabilities, we expect to see additional features. One is the support for fine-grained authorization management that allows Cloud services (and web applications) to externalize authorization decisions to the Cloud-based User and Access Management system. Centrally managed authorization rules, attributes held in the directory, and context information are used for managing authorization.

We also will see solutions that enhance privacy, particularly by following the concept of minimal disclosure. They, for instance, will allow proofing identities by providing back the minimal answer instead of full information. The easiest-to-understand example on this is age verification, where the answer “yes” or “no” to the question “18 or older?” is sufficient, while most of today’s solutions return the full birth date.

Cloud-based User and Access Management also has to provide integration with on-premise directories such as the Microsoft Active Directory, allowing employees to access the Cloud services and web applications managed by the service.

Cloud User and Access Management is a high growth market segment, given the fact that there is a tremendous increase in business demand for tighter collaboration with both business partners and customers. We expect that Cloud User and Access Management quickly will outgrow Cloud-based IAM/IAG.

7. Specific features analyzed

When evaluating the services, besides looking at the aspects of

- overall functionality
- size of the company
- number of customers
- number of developers
- partner ecosystem
- licensing models
- core features of Cloud User and Access Management

we also considered some specific features. These include:

On-premise integration	Approach to integrating back to on-premise IAM environments, for instance Microsoft Active Directory.
Onboarding of externals	Approach and flexibility in onboarding of external users, including configurable workflows and flexible authentication schemes.
Location of datacentres	Location and operation of datacentre, including regional datacentres e.g. in Europe and the question whether the company owns datacentres or relies on partners.
APIs	Breadth and depth of APIs for managing, configuring and customizing the services.

Reporting capabilities	Built-in reporting capabilities and integration with on-premise Access Governance solutions or SIEM solutions.
Preconfigured services	Number of preconfigured Cloud services for rapid provisioning.
Depth of preconfiguration	Approach to preconfiguration of Cloud services, i.e. level of detail (e.g. only authentication or advanced control about entitlements in these services).
Granularity of access controls	Granularity of access control policies for Cloud services that can be configured in these applications.
Strong authentication	Support for strong authentication mechanisms and versatile authentication, including features such as step-up authentication.
Standards support	Support for established and upcoming industry standards and engagement in standards initiatives.

The support for these functions is added to our evaluation of the products. We've also looked at specific USPs (Unique Selling Propositions) and innovative features of products which distinguish them from other offerings available in the market.

8. Market Leaders

Based on our evaluation of the products, we've identified (as mentioned above) different types of leaders in the Cloud User and Access Management market segment. The market leaders are shown in figure 6.

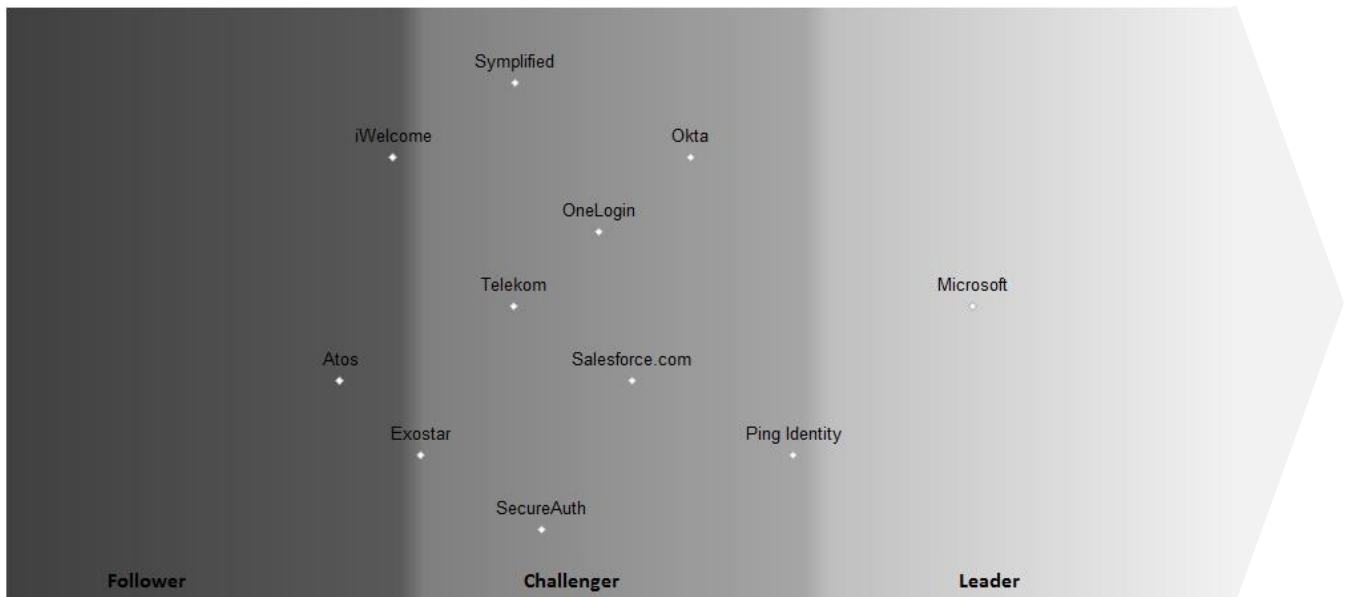


Fig. 6: Market leaders in the Cloud User and Access Management market segment.

Looking at the Market Leadership chart, we see Microsoft as the clear leader. This is based on the fact that their Azure Active Directory on the one hand shows good direct acceptance and on the other builds the foundation for widely used Microsoft Office 365. Furthermore, Microsoft has an exceptionally strong partner ecosystem.

Ping Identity, as one of the established players in the market, is leading the Challengers. They also can build on a significant partner base and global presence. Okta, Salesforce.com and OneLogin are next. Salesforce.com delivers the services to its customer base, but has few direct customers. The others have a growing but still relatively small customer base. Others such as Symplified, SecureAuth and Telekom are following closely.

Exostar is a specific case. Due to their focus on industry networks, they are strong in particular industries, e.g. Aerospace & Defense. However, they have a rather small partner ecosystem. The focus on only a few industries together with the partner ecosystem places them more to the left in the Market Leadership rating.

iWelcome and Atos both have a very small customer base as of now, thus currently being placed in the follower section. However, being the only purely European players aside from Telekom, they might benefit from the current reluctance of many European customers regarding onboarding to US-based Cloud Service Providers.

Market Leaders (in alphabetical order):

- Microsoft

9. Product Leaders

The second view we provide concerns Product Leadership. This view is mainly based on the analysis of product/service features and the overall capabilities of the various products/services.



Fig. 7: Product leaders in the Cloud User and Access Management market segment.

Product Leadership, or in this case Service Leadership, is the view where we look specifically at the functional strength and completeness of products. We see Ping Identity as the leading company here, followed by Microsoft and Okta. Notably, Microsoft has a strong potential to improve its positioning once the CPIM (Customer and Partner Identity Management) enhancement of their Azure Active Directory comes to the market.

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Finally, there is Atos. The initial release of their service still has some gaps in functionality. We expect Atos to address these in upcoming versions and thus improve their market position.

Product Leaders (in alphabetical order):

- Microsoft
- Okta
- Ping Identity

10. Innovation Leaders

The third angle we took when evaluating products/services concerned innovation. Innovation is, from our perspective, a key capability in IT market segments. Innovation is what customers require to receive new releases that meet new requirements. Thus, a look at innovation leaders is also important, beyond analyzing product/service features.

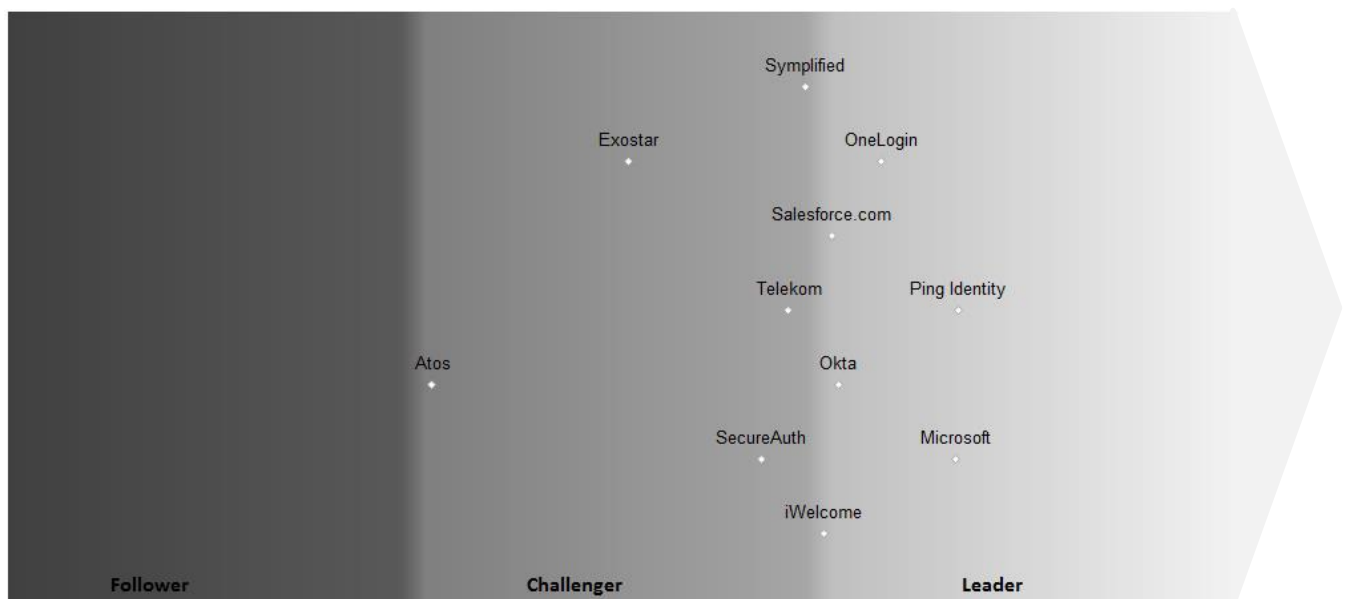


Fig. 8: Innovation leaders in the Cloud User and Access Management market segment.

When looking at Innovation Leadership, we again see Ping Identity and Microsoft in front, with Ping Identity being slightly ahead of Microsoft. Microsoft might further improve its position with upcoming added services to Microsoft Azure Active Directory.

Other vendors in the Leader segment include OneLogin, Okta and Salesforce.com. All three are showing a number of innovative features and a good understanding of the overall Cloud User and Access Management market. That is true as well for the next group of vendors, including iWelcome, Symplified, Telekom and SecureAuth. While being rated as Challengers as of now, all of them are close to the Leaders section.

We again see Exostar and Atos at some distance to the others. In the case of Exostar, this is subject to their specific approach to the market. In the case of Atos, their initial release still shows some gaps, which we expect Atos to address in upcoming versions.

Innovation Leaders (in alphabetical order):

- Microsoft
- Okta
- OneLogin
- Ping Identity
- Salesforce.com

11. Product/service evaluation

This section contains a quick rating for every product/service we've included in this KuppingerCole Leadership Compass document. For many of the products there are additional KuppingerCole Product Reports and Executive Views available, providing more detailed information.

11.5 Microsoft Windows Azure Active Directory Premium

Microsoft has recently made its Azure Active Directory Premium (Azure AD) edition publically available. Additional features and add-on services are already under development. With Azure AD, Microsoft plays a key role in the evolution of the Cloud User and Access Management market. The product is targeted at both enabling access of on-premise users to Cloud services through integration with existing Active Directory infrastructures, and on supporting the emerging demand of managing identities and access of business partners and customers.

Strengths/Opportunities	Weaknesses/Threats
Proven scalability and performance, being the underlying service for Microsoft Office 365 Broad number of preconfigured integrations to Cloud services Innovative and well thought-out approach Broad standards support	Several enhancements not available yet, but on roadmap

Table 9: Microsoft Windows Azure Active Directory Premium major strengths and weaknesses.

Azure AD in its premium edition is one of the most interesting offerings in the Cloud User and Access Management market. There is a standard edition that is available for free, but with limited functionality regarding scalability, two-factor authentication, etc. It must not be mixed up with existing on-premise Microsoft Active Directory, because it is fairly different in a number of areas. However, there is integration back to the on-premise Microsoft Active Directory through both synchronization and federation services.

The service as of now already provides a number of interesting features such as flexible schemas and a large number of preconfigured integrations to Cloud services. Other important features such as flexible workflows for self-registration and authentication of users or support for social logins are not available yet but on the roadmap for near-time delivery as part of the CPIM (Customer and Partner Identity Management) enhancement. Once released, that will further strengthen the position of Azure AD in that market segment.

Security	positive
Functionality	positive
Integration	positive
Interoperability	strong positive
Usability	positive

Table 10: Microsoft Windows Azure Active Directory Premium rating.

Overall we see Microsoft Azure AD as the offering to beat when it comes to Cloud User and Access Management. Microsoft has a potential for dominating that market. Even while they do not disclose information about the location of data across their data centers, Microsoft has standard contracts respecting EU-specific requirements.

12. Products at a glance

This section provides an overview of the various products we have analyzed within this KuppingerCole Leadership Compass on Cloud User and Access Management. Aside from the rating overview, we provide additional comparisons that put Product Leadership, Innovation Leadership, and Market Leadership in relation to each other. These allow identifying, for instance, highly innovative but specialized vendors or local players that provide strong product features but do not have a global presence and large customer base yet.

12.1 Ratings at a glance

Based on our evaluation, a comparative overview of the ratings of all the products covered in this document is shown in table 23.

Product	Security	Functionality	Integration	Interoperability	Usability
Atos Identity Federation Hub	positive	weak	positive	weak	weak
Telekom Internet Business Suite	positive	neutral	positive	weak	neutral
Exostar LLC Managed Access Gateway (MAG) and Secure Access Manager (SAM)	positive	neutral	positive	neutral	neutral
iWelcome	positive	positive	neutral	positive	positive
Microsoft Windows Azure Active Directory Premium	positive	positive	positive	strong positive	positive
Okta	positive	positive	positive	positive	positive
OneLogin	positive	positive	neutral	positive	positive
Ping Identity PingOne® and PingFederate®	positive	strong positive	neutral	strong positive	strong positive
Salesforce Identity and Salesforce Identity Connect	positive	neutral	positive	neutral	positive
SecureAuth IdP	positive	positive	neutral	positive	positive
Symplified Identity and Access Management Platform	positive	positive	positive	positive	positive

Table 23: Comparative overview of the ratings for the product capabilities.

In addition we provide in table 24 an overview which also contains four additional ratings for the vendor, going beyond the product view provided in the previous section. While the rating for Financial Strength applies to the vendor, the other ratings apply to the product.

Vendor	Innovativeness	Market Position	Financial Strength	Ecosystem
Atos	weak	critical	positive	weak
Deutsche Telekom	positive	weak	strong positive	weak
Exostar	neutral	weak	neutral	weak
iWelcome	positive	weak	weak	weak
Microsoft	positive	positive	strong positive	strong positive
Okta	positive	neutral	positive	neutral
OneLogin	positive	neutral	neutral	neutral
Ping Identity	positive	positive	positive	positive
Salesforce	positive	neutral	strong positive	neutral
SecureAuth	neutral	neutral	neutral	neutral
Symlified	positive	neutral	neutral	neutral

Table 24: Comparative overview of the ratings for vendors.

Table 24 requires some additional explanation regarding the “critical” rating.

In the area of Innovativeness, this rating is applied if vendors provide none or very few of the more advanced features we have been looking for in that analysis, like support for multi-tenancy, shopping cart approaches for requesting access, and others.

These ratings are applied for Market Position in the case of vendors which have a very limited visibility outside of regional markets like France or Germany or even within these markets. Usually the number of existing customers is also limited in these cases.

In the area of Financial Strength, this rating applies in case of a lack of information about financial strength or for vendors with a very limited customer base, but is also based on some other criteria. This doesn’t imply that the vendor is in a critical financial situation; however the potential for massive investments for quick growth appears to be limited. On the other hand, it’s also possible that vendors with better ratings might fail and disappear from the market.

Finally, a critical rating regarding Ecosystem applies to vendors which have no or a very limited ecosystem with respect to numbers and regional presence. That might be company policy, to protect their own consulting and system integration business. However our strong belief is that growth and successful market entry of companies into a market segment relies on strong partnerships.

12.2 The Market/Product Matrix

Beyond that analysis, we've compared the position of vendors regarding combinations of our three major areas of analysis, i.e. market leadership, product leadership, and innovation leadership. That analysis provides additional information.

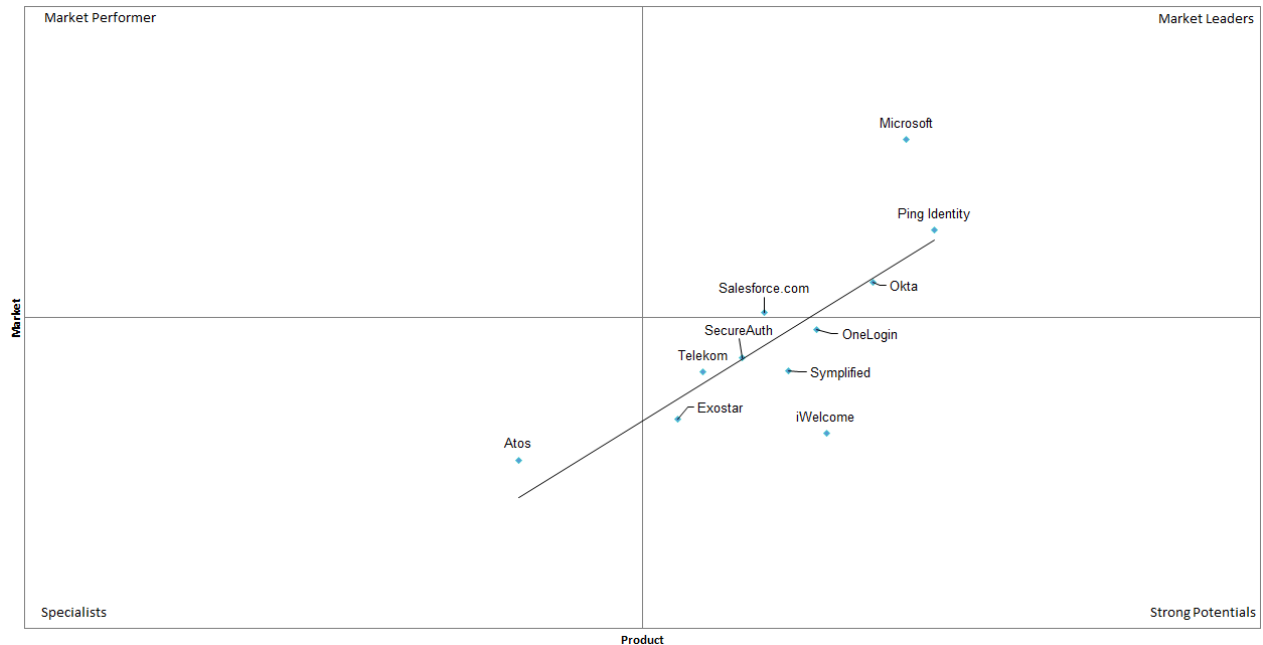


Fig. 9: The Market/Product Matrix. Vendors below the line have a weaker market position than expected according to their product maturity. Vendors above the line are sort of “overperformers” when comparing Market Leadership and Product Leadership.

In this comparison it becomes clear which vendors are better positioned in our analysis of Product Leadership compared to their position in the Market Leadership analysis. Vendors above the line are sort of “overperforming” in the market. It comes as no surprise that these are mainly the very large vendors, while vendors below the line frequently are innovative but focused on specific regions.

We've defined four segments of vendors to help in classifying them:

- Market Leaders:** This segment contains vendors which have a strong position in our categories of Product Leadership and Market Leadership. These vendors have an overall strong to excellent position in the market.
- Strong Potentials:** This segment includes vendors which have strong products, being ranked high in our Product Leadership evaluation. However, their market position is not as good. That might be caused by various reasons, like a regional focus of the vendors or the fact that they are niche vendors in that particular market segment.
- Market Performers:** Here we find vendors which have a stronger position in Market Leadership than in Product Leadership. Typically such vendors have a strong, established customer base due to other market segments they are active in.

Specialists: In that segment we typically find specialized vendors which have – in most cases – specific strengths but neither provide full coverage of all features which are common in the particular market segment nor count among the software vendors with overall very large portfolios.

The matrix shows a picture that is symptomatic for relatively new market segments. Many vendors still do not have a strong market presence, but already show acceptable strength regarding the product functionality they provide.

In the Market Leaders quadrant we find Microsoft, Ping Identity, and Okta as vendors that are positioned clearly in that segment. Salesforce.com is just at the edge but with a strong potential of further extending their market position.

There are no Market Performers yet, but a significant number of Strong Potentials. This segment holds most of the other vendors in the market segment. We expect seeing some of them becoming Market Leaders, while others might move to other quadrants. In a relatively new market segment with a lot of innovation, change is very likely especially for the vendors in the Strong Potentials quadrant.

Finally, there is the Specialists quadrant which as of now only holds Atos. Atos has a very focused functionality as of now with some specific strength such as their Access Governance support, but falls short in some other functional areas.

12.3 The Product/Innovation Matrix

This view shows how Product Leadership and Innovation Leadership are correlated. It is not surprising that there is a pretty good correlation between the two views with few exceptions. This distribution and correlation is typical for mature markets with a significant number of established vendors plus a number of smaller vendors.

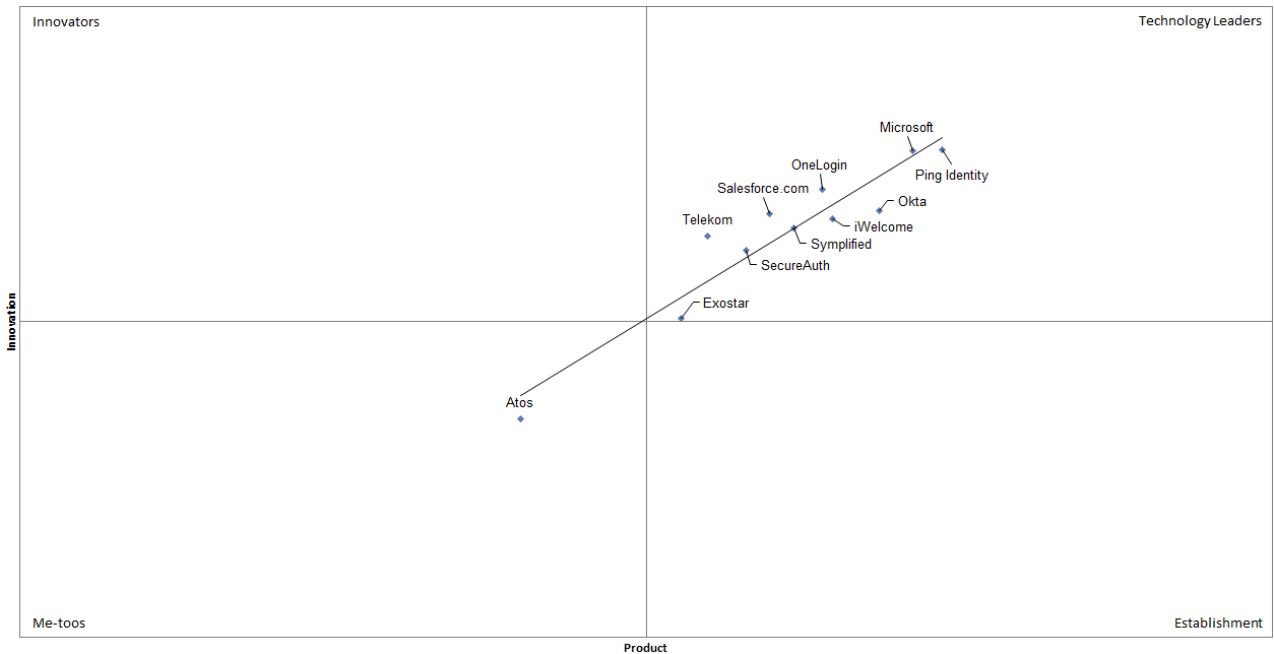


Fig. 10: The Product/Innovation Matrix. Vendors below the line are less innovative, vendors above the line are, compared to the current Product Leadership positioning, more innovative.

Again we've defined four segments of vendors. These are

Technology Leaders: This group contains vendors which have technologies which are strong regarding their existing functionality and which show a good degree of innovation.

Establishment: In this segment we typically find vendors which have a relatively good position in the market but don't perform as strong when it comes to innovation. However, there are exceptions if vendors take a different path and focus on innovations which are not common in the market and thus do not count that strong for the Innovation Leadership rating.

Innovators: Here we find highly innovative vendors with a limited visibility in the market. It is always worth having a look at this segment because vendors therein might be a fit especially for specific customer requirements.

Me-toos: This segment mainly contains those vendors which are following the market. There are exceptions in the case of vendors which take a fundamentally different approach to provide specialized point solutions. However, in most cases this is more about delivering what others have already created.

This chart shows a quite interesting picture. Most vendors are close to the standard curve showing a balanced ratio of product capabilities and innovation. In fact, most of them are slightly better in innovation compared to the current level of product capabilities. Aside from Atos, all vendors are placed in the Technology Leaders quadrant, with the overall leaders being more at the top and the others following.

Exostar is somewhat behind, close to moving to other quadrants, which is based on their specific approach. Atos currently stays in the Me-Too quadrant with a still somewhat limited feature set.

12.4 The Innovation/Market Matrix

The third matrix shows how Innovation Leadership and Market Leadership are related. Some vendors might perform well in the market without being Innovation Leaders. This might impose a risk for their future position in the market, depending on how they improve their Innovation Leadership position. On the other hand, vendors which are highly innovative have a good chance for improving their market position but might also fail, especially in the case of smaller vendors.

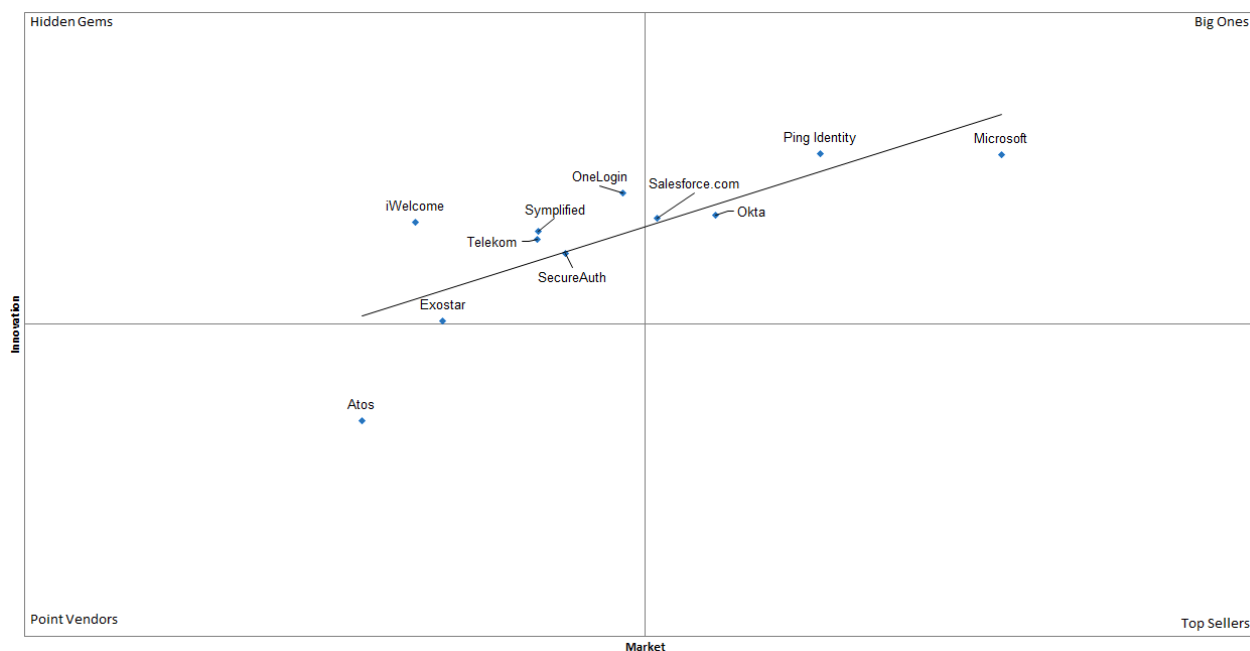


Fig. 11: The Innovation/Market Matrix. Vendors below the line are performing well in the market compared to their relative weak position in the Innovation Leadership rating, while vendors above the line show based on their ability to innovate, the biggest potential for improving their market position.

The four segments we have defined here are

- Big Ones:** These are market leading vendors with a good to strong position in Innovation Leadership. This segment mainly includes large software vendors.
- Top Sellers:** In this segment we find vendors which have an excellent market position compared to their ranking in the Innovation Leadership rating. That can be caused by a strong sales force or by selling to a specific community of “customer customers”, i.e. a loyal and powerful group of contacts in the customer organizations.
- Hidden Gems:** Here we find vendors which are more innovative than would be expected given their Market Leadership rating. These vendors have a strong potential for growth, however they also might fail in delivering on that potential. Nevertheless this group is always worth a look due to their specific position in the market.
- Point Vendors:** In this segment we find vendors which typically either have point solutions or which are targeting specific groups of customers like SMBs with solutions focused on these, but not necessarily covering all requirements of all types of customers and thus not being among the Innovation Leaders. These vendors might be attractive if their solution fits the specific customer requirements.

Here we see a fairly different distribution. Four vendors as of now qualify for the “Big Ones” quadrant, both driving innovation and being quite successful in the market. These are Microsoft, Ping Identity, Okta, and Salesforce.com.

A number of other vendors are in the “Hidden Gems” quadrant, with significant potential due to their innovative features but a still rather small market share, limited global presence, or small partner ecosystems.

Atos shows up as a point vendor in this chart, given their very specific feature set. This might change quickly when they add other features.

13. Overall Leadership

Finally, we’ve put together the three different ratings for leadership, i.e. Market Leadership, Product Leadership, and Innovation Leadership and created an Overall Leadership rating. This is shown below in figure 12.



Fig. 12: The Overall Leadership rating for the Cloud User and Access Management market segment.

When looking at the Overall Leaders, we see two companies that made it into the Leaders segment: Microsoft and Ping Identity. Both benefit from the fact that they are strong in most of the three other Leadership ratings, i.e. Product Leadership, Innovation Leadership, and Market Leadership. Microsoft especially benefits from its strong market position.

Most vendors currently are in the Challengers segment. In front we see Okta and OneLogin, with Salesforce.com closely following. Closely behind these three, we see Symplified, iWelcome, SecureAuth and Telekom. SecureAuth has its strength in supporting strong authentication features, while Telekom currently is providing a specialized offering with exceptionally strong features in managing subscriptions of services and other uncommon functionalities, but a strong potential.

Exostar follows these vendors, providing a specialized solution focused on industry networks for particular industries. Thus, their approach to the market is quite different from other vendors, leading to a low rating in Market Leadership, which also affects the Overall Leadership. Finally, there is Atos. They just launched their first release of a solution with potential, but are not yet leading-edge. However, they might improve their positioning quickly when adding some of the currently lacking features in upcoming releases.

Overall Leaders are (in alphabetical order):

- Microsoft
- Ping Identity

14. Vendors and Market Segments to watch

Aside from the vendors covered in detail in this Leadership Compass document, we also observe other vendors in the market that we find interesting for that market. Some had decided not to participate in this KuppingerCole Leadership compass for various reasons, while others are interesting vendors but do not fully fit into the market segment of Cloud User and Access Management or are not yet mature enough to be considered in this evaluation. We provide short abstracts on these vendors. Notably, a number of vendors in the broader Cloud IAM market that are targeting primarily the Cloud IAM/IAG functionality are covered in the KuppingerCole Leadership Compass on Cloud IAM/IAG. These include CA Technology, EmpowerID, Fischer International Identity, IBM, Identropy, Oracle, and SailPoint. Notably, some of the vendors listed also plan to announce separate Cloud User and Access Management solutions within 2014, but are not ready for deployment yet.

14.1 Intel/McAfee

Intel provides its own Cloud Single Sign-On service as part of McAfee Web Protection. The service is not primarily targeted at the Cloud User and Access Management market, but positioned as part of the overall offering of McAfee (now part of Intel). The main customers are persons responsible for overall protection of web applications. Despite the go-to-market approach of McAfee, that misses an important market segment, this solution might be interesting for customers. Intel declined participation in this Leadership Compass.

14.2 RSA

RSA has some services around Federation in the Cloud plus the recently acquired Aveksa MyAccessLive offering. There is strong potential in both of these services. However, due to upcoming new releases and roadmap changes as part of the integration of RSA and Aveksa, RSA declined participation in this Leadership Compass. We strongly recommend closely watching the upcoming offerings of RSA in that market segment.

14.3 Symantec

Symantec also provides a service for Cloud Single Sign-On as part of its O3 services. Symantec O3 is a cloud security platform that provides single sign-on and enforces access control policies across web applications. Symantec O3 helps enterprises migrate to Software as a Service (SaaS) applications while ensuring that proper risk management and compliance measures are in place to protect enterprise data and follow regulations. Symantec also declined participation in this Leadership Compass.

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