

KuppingerCole Report
LEADERSHIP COMPASS

by **Martin Kuppinger** | January 2014

Enterprise Single Sign-On

Leaders in innovation, product features, and market reach for Enterprise Single Sign-On.

Your Compass for finding the right path in the market.



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January 2014



Leadership Compass
Enterprise Single Sign-On
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Related Research:

Executive View: Evidian Enterprise SSO - 70823

October 2013

Leadership Compass: Access Management and Federation – 70790

September 2013

Leadership Compass: Access Governance – 70735

March 2013

Leadership Compass: Identity Provisioning – 70151

October 2012

Product Report: Evidian Identity & Access Manager 9 - 70130

October 2011

1 Management Summary

Enterprise Single Sign-On (E-SSO) is a well-established technology. Despite all progress in the area of Identity Federation, E-SSO is also still a relevant technology. This is also true in the light of the growing number of Cloud-SSO solutions that manage access to cloud applications, both on-premise and cloud-based approaches but targeted on Single Sign-On to Cloud apps. However, in most organizations there are still many legacy applications in on-premise installations in place. Providing single sign-on to all types of applications increases convenience for users and might also reduce help desk cost. In addition, there are many specific use cases such as hospitals or production environments that require E-SSO for security and efficiency reasons.

Thus, E-SSO is one of the technologies that are of high importance for organizations. E-SSO provides centrally managed solutions that grant access to various applications, both traditional “fat client” and browser-based applications.

This KuppingerCole Leadership Compass looks at the E-SSO market segment, defined by:

- on-premise solutions for Single Sign-On
- central management of SSO and central storage of credentials
- SSO to both “fat client” and browser-based applications

Not covered are the Cloud SSO solutions mentioned above. Also out of scope are any local SSO approaches that do not rely on centralized management and storage of credentials.

The Leadership Compass shows that Enterprise Single Sign-On is a rather mature market. Especially in the areas of Product Leadership and Innovation Leadership, many vendors are leading-edge and competing head-to-head. This is good news for customers, allowing them to choose from a range of mature products that suit their needs. As always, however, it is about the details. Some solutions offer specific features that are relevant to specific use cases, such as unlocking multiple systems for traders in the finance industry or in control rooms. Thus when selecting vendors, it is strongly recommended to thoroughly look at support for the more specific use cases – that is where even the Leaders differentiate significantly. In fact, there are no weak vendors in that analysis. All of the vendors show particular strength and provide a good foundation for addressing the E-SSO challenges of organizations.



Fig. 1: Overall Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.].

In the Overall Leadership rating, there are five vendors in the Leaders segment, competing almost neck and neck. Three other vendors are rated as Challengers. All of them have a good potential to close the gap. Given that Overall Leadership is a combined rating of Product Leadership, Innovation Leadership, and Market Leadership, the main reason for some vendors being rated Challengers is that their market presence is not as broad as that of the leading companies. For instance, i-Sprint is only addressing the APAC (Asia/Pacific) market as of now. This impacts the overall rating. Notably, all vendors in the analysis have mature and comprehensive offerings for Enterprise Single Sign-On, so there is no single vendor that must be considered immature or as a specialist serving only very specific use cases.

Among the Leaders, Evidian and Oracle are a little in front. While Evidian shows overall strength in all areas of the Leadership ratings, Oracle benefits from its strong market presence and ecosystem, while still having a technically leading-edge offering.



Fig. 2: Product Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.].

The Product Leadership rating shows an even closer competition. Most vendors are in the Leaders segment, with the other two being close to that segment. This is a clear indicator of a very mature market with a number of established and proven solutions. Overall, the differences between the various solutions are relatively small. As mentioned above, picking a vendor in such markets requires carefully looking at the detailed features for specific use cases.

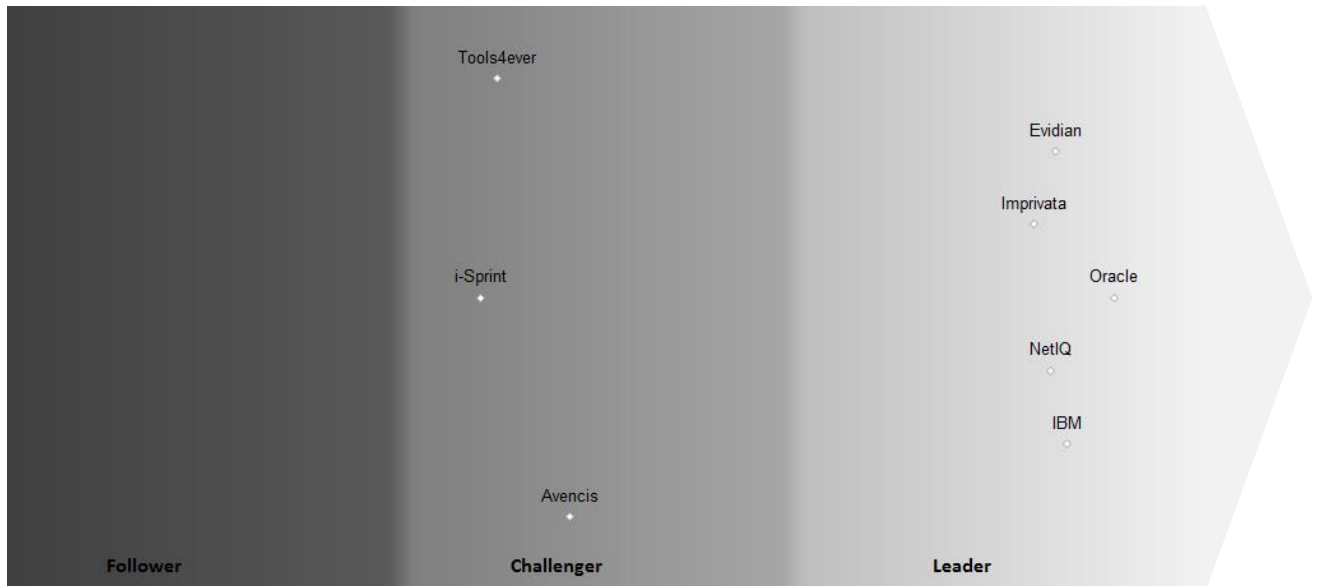


Fig. 3: Market Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.].

In the Market Leaders segment, things look a little different. While five vendors are competing head-to-head for the lead in that area, three others are behind. This is caused by the fact that these three vendors have a smaller customer base and usually are acting more regionally, with a small ecosystem of partners. The Leaders, on the other hand, all have a global presence and a large ecosystem of partners together with a significantly big customer base.

However, even the smaller companies have – as mentioned above – considerably good offerings for E-SSO. They might take the opportunity of addressing other regions by building up a partner ecosystem in these regions. This is the case for all three vendors at the left, Avencis, i-Sprint, and Tools4ever. All of them have a rather small customer base and limited global reach but fairly good products.

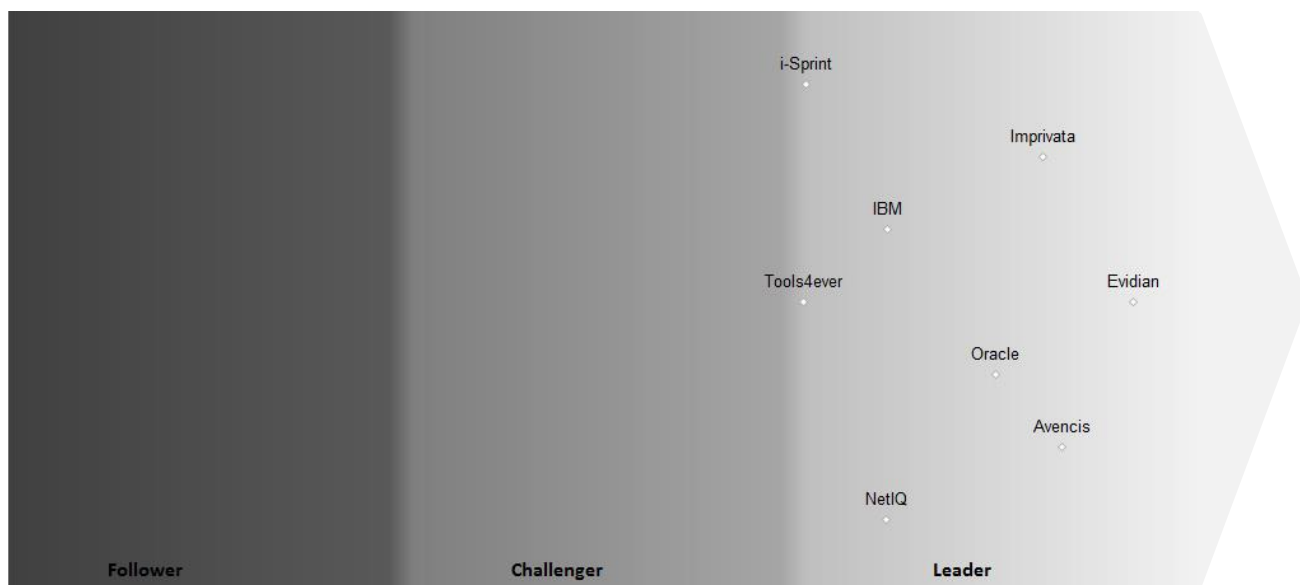


Fig. 4: Innovation Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.].

Finally, there is the Innovation Leadership rating. This shows that all vendors, despite acting in a rather mature market segment, are continuously innovating their products. This includes adding support for new use cases, support for mobile and roaming users, for Identity Federation standards such as SAML v2, and integration to Web SSO solutions, to name just a few.

Picking solutions always requires a thorough analysis of customer requirements and a comparison with product features. Leadership does not always mean that a product is the best fit for a particular customer and his requirements. However, this Leadership Compass will help identifying those vendors customers should look at more closely.

2 Methodology

KuppingerCole’s Leadership Compass is a tool that provides an overview of a particular IT market segment and identifies the Leader in that market segment. It is the Compass that assists you in identifying the vendors and products 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 does not 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 vendors which have a large, global customer base and a strong partner network to support their customers. A lack of 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 most 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 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.

In addition, we have defined a series of matrixes which

- Compare ratings, for example the rating for innovation against the one for the overall product capabilities, thus identifying highly innovative vendors which are taking a slightly different path than established vendors, but also established vendors which no longer lead in innovation. These additional matrixes provide additional viewpoints on the vendors and should be considered when picking vendors for RFI (Request for Information), long lists, etc. in the vendor/product selection process.
- Optionally add additional views by comparing the product rating to other feature areas. This is important because not all customers need the same product features, depending on their current situation and specific requirements. Based on these additional matrixes, customers can evaluate which vendor fits best to their current needs but is also promising regarding its overall capabilities. The latter is important given that a product typically not only should address a pressing challenge but become a sustainable solution. It is about helping now and being good enough for the next steps and future requirements. Here these additional matrixes come into play. For this Leadership Compass, there are none of these additional matrixes due to the high degree of similarity of products and the overall maturity of the Enterprise Single Sign-On market.

Thus, the KuppingerCole Leadership Compass provides a multi-dimensional view on vendors and their products.

Our rating is based on a broad range of input and a long experience in that market segment. Input consists of experience from KuppingerCole advisory projects, feedback from customers using the products, product documentation, 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 and vendors. The results are, among other types of publications and services, published in the KuppingerCole Leadership Compass Reports, 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
- Interoperability
- Functionality
- Usability
- Integration

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 Management). 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 state of the industry. The third factor is what KuppingerCole would expect the industry to deliver to meet customer requirements. In mature market segments, the state 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 the 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.

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 Economy) 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 both 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.

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. Innovativeness, despite being part of the vendor rating, looks at the innovativeness in the particular market segment analyzed in this KuppingerCole Leadership Compass.

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 necessarily lead to a very low overall rating. This factor takes into account the vendor's presence in major markets. Again, while being part of the vendor rating, this mainly looks at the market position in the particular market segment analyzed in this KuppingerCole Leadership Compass. Thus a very large vendor might not be a Market Leader in the particular market segment we are analyzing.

Financial strength – even while KuppingerCole doesn't consider size to be a value in 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 for the particular product covered in this Leadership Compass document. 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, the US, or the APAC region.

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 a 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 Leadership Compass document, we approached all major vendors. However, there are a number of point offerings in the market that have a limited market visibility and were not included in the Leadership analysis for this KuppingerCole Leadership Compass. Most of these are not true Enterprise SSO vendors but offer some sort of client-based SSO technology.

From the relevant vendors in the market, we did not include three for the following reasons:

- CA Technologies considered their solution as not fitting perfectly well into the market segment we have defined. We recommend looking at that solution anyway.
- Dell (formerly Quest Software) provides an Enterprise SSO solution that is in fact OEMed by Evidian. Thus, the ratings for the Evidian E-SSO solution apply to this product as well.
- HID Global did not respond to our questionnaire. We still consider them being an interesting and relevant player in the market, but could not include them in this evaluation due to their lack of participation.

6 Market Segment

Enterprise Single Sign-On (E-SSO) is a well-established technology. Despite all progress in the area of Identity Federation, E-SSO is also still a relevant technology. This is also true in the light of the growing number of Cloud-SSO solutions that manage access to cloud applications, both on-premise and cloud-based approaches but targeted on Single Sign-On to Cloud apps. However, in most organizations there are still many legacy applications in on-premise installations in place. Providing single sign-on to all types of applications increases convenience for users and might also reduce help desk cost. In addition, there are many specific use cases such as hospitals or production environments that require E-SSO for security and efficiency reasons.

Thus, E-SSO is one of the technologies that are of high importance for organizations. E-SSO provides centrally managed solutions that grant access to various applications, both traditional “fat client” and browser-based applications.

This KuppingerCole Leadership Compass looks at the E-SSO market segment, defined by

- on-premise solutions for Single Sign-On
- central management of SSO and central storage of credentials
- SSO to both “fat client” and browser-based applications

Not covered are the Cloud SSO solutions mentioned above. Also out of scope are any local SSO approaches that do not rely on centralized management and storage of credentials.

E-SSO solutions are the tactical, non-intrusive approach for SSO. From the user perspective, they provide an SSO experience, while there is no “true” SSO at the system level. E-SSO works with different credentials for different systems. Thus, these solutions do not require changing applications.

E-SSO frequently is used in combination with other SSO approaches such as Identity Federation or Kerberos, the latter typically based on the primary Microsoft Active Directory authentication. Their value is based on two facts:

- The solutions are non-intrusive and thus simple to implement. They have a strong potential for quick-wins in improving the user experience.
- Several applications are hard or impossible to integrate into true SSO approaches such as Identity Federation or Kerberos. Thus, the solutions provide a specifically strong benefit for environments with a large number of legacy applications.

The latter makes them interesting for many industries and environments, such as healthcare or the manufacturing areas of organizations with their specific IT solutions. Overall, there is a value in Enterprise Single Sign-On. Despite being sort of tactical, these solutions are likely to stay for a long period of time.

7 Specific features analyzed

When evaluating the products, besides looking at the aspects of

- overall functionality
- size of the company
- number of customers
- number of developers
- partner ecosystem
- licensing models
- platform support

we also considered several specific features.

These include:

Secure Credentials	This clearly is a key capability. An E-SSO solution with weaknesses in that area would not be of any value. Securely storing and managing credentials is the key capability for this market segment.
Specialized Use Cases	The support for use cases such as Kiosk Mode, Fast User Switching, or unlocking multiple systems simultaneously is another important area we looked at. This is where the products distinguish themselves from each other.
Configuration of Applications	While it is rather simple to configure many applications, some such as SAP are more difficult to integrate. In addition, while some E-SSO vendors rely on GUIs, other use scripts or a combination. The complexity (or simplicity) in this area was one of the features we specifically looked at when doing our rating.
Central Management	Enterprise SSO has its name in part because it takes a centralized approach. Thus, central management capabilities are one of the more relevant features.
Roaming/mobile Users	In these days of ever-growing mobility, support for roaming and mobile users is of increasing importance. Supporting disconnected users and secure local caching of credentials thus is another feature of high relevance.
Web-SSO Integration	In many organizations, both Web Application Management/Web-SSO and Enterprise SSO are used. Providing integration between these two features adds value for users, by relying on one authentication, regardless of which resources he is accessing.
Overall IAM Integration	Integration with Identity Provisioning – for providing credentials of new users etc. – is another important feature of E-SSO.

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.

Notably, virtually all products are focused on Windows clients only. However, this is acceptable given the fact that these are the common systems also using “fat” clients. When access is done only via apps or web interfaces, other approaches for implementing a Single Sign-On experience can be used, such as Identity Federation for state-of-the-art apps or Web Access Management/Web Single Sign-On for accessing web applications.

8 Market Leaders

Based on our evaluation of the products, we’ve identified (as mentioned above) different types of Leaders in the Enterprise Single Sign-On market segment. The Market Leaders are shown in figure 5.

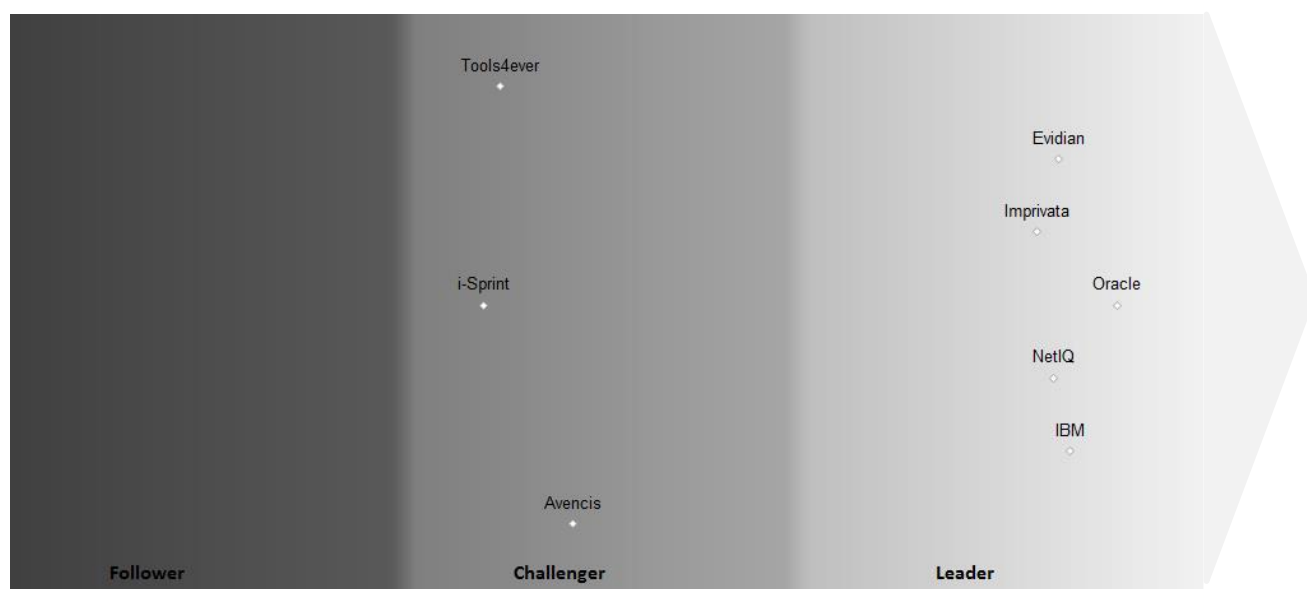


Fig. 5: Market Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.].

In the Market Leaders segment, five vendors are competing head-to-head for the lead in that area, three others are behind. This is caused by the fact that these three vendors have a smaller customer base and usually are acting more regionally, with a small ecosystem of partners. The Leaders, on the other hand, all have a global presence and a large ecosystem of partners together with a significantly big customer base.

However, even the smaller companies have – as mentioned above – considerably good offerings for E-SSO. They might take the opportunity of addressing other regions by building up a partner ecosystem in these regions.

We expect Market Leaders to be Leaders on a global basis. Companies which are strong in a specific geographic region but sell little or nothing to other major regions are not considered Market Leaders. The same holds true for the vendor’s partner ecosystem – without global scale in the partner ecosystem, we don’t rate vendors as Market Leaders.

Market Leadership is an indicator of the ability of vendors to execute on projects. However, this depends on other factors as well. Small vendors might well be able to execute in their “home base”.

Small vendors are sometimes more directly involved in projects, which can be positive or negative – the latter, if it leads to branches in product development, which aren’t managed well. Besides that, the success of projects depends on many other factors, including the quality of the system integrator – so even large vendors with a good ecosystem might fail in projects.

It has to be noted that this Market Leadership rating doesn’t allow any conclusion about whether the products of the different vendors fit the customer requirements.

9 Product Leaders

The second view we provide is about Product Leadership. That view is mainly based on the analysis of product features and the overall capabilities of the various products.



Fig. 6: Product Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.].

The Product Leadership rating shows an even closer competition. Most vendors are in the Leaders segment, with the other two being close to that segment. This is a clear indicator of a very mature market with a number of established and proven solutions. Overall, the differences between the various solutions are relatively small. As mentioned above, picking a vendor in such markets requires carefully looking at the detailed features for specific use cases.

Again, to select a product it is important to look at the specific features and map them to the customer requirements. There are sufficient examples where products that weren’t “feature Leaders” still were the better fit for specific customer scenarios.

10 Innovation Leaders

The third angle we took when evaluating products is innovation. Innovation is, from our perspective, a key distinction 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 features.

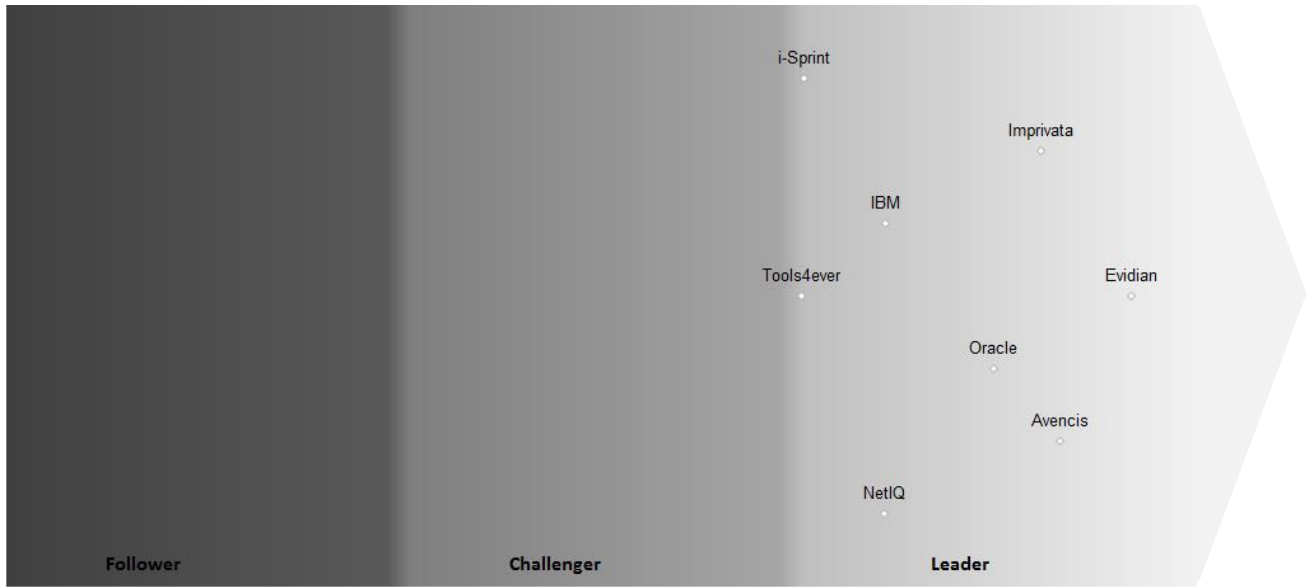


Fig. 7: Innovation Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.]

This rating shows that all vendors, despite acting in a rather mature market segment, are continuously innovating their products. This includes adding support for new use cases, support for mobile and roaming users, for Identity Federation standards such as SAML v2, and integration to Web SSO solutions, to name just a few.

11 Product Evaluation

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

11.1 Evidian Enterprise SSO/Evidian Authentication Manager

Evidian is an established vendor in the E-SSO market, being among the Leaders in that market for years. Their E-SSO offering consists of two separate but tightly integrated products, Evidian Enterprise SSO and Evidian Authentication Manager. While the first provides the core E-SSO capability, the latter adds support for a broad range of authentication mechanisms. Combining E-SSO with strong authentication is a must to mitigate risks from having sort of a “key to the kingdom” through the centralized sign-on to various applications. On the other hand, many use cases require a fast logon and user switching, especially in manufacturing environments and healthcare where multiple users access the same system. Both are covered well by the Evidian solutions.

Strengths/Opportunities	Weaknesses/Threats
Strong support for all key features of E-SSO. Innovative features to support even very specific use cases such as simultaneous login to multiple systems in trader rooms. Strong support for various authentication technologies.	Credentials can only be stored in directories, not in databases.

Table 1: Evidian Enterprise SSO/Evidian Authentication Manager major strengths and weaknesses.

In sum, we find there are no major weaknesses in the product. Customers might argue about the need for having two distinct products. However, these provide separate functionality and are tightly integrated, thus better to be understood as modules than as separate products. Also the fact that only directories are supported as user stores might be considered a weakness, given the fact that these directories might be somewhat more difficult to configure – schema changes – and to protect than databases. However, Evidian is highly experienced in providing smooth, proven, secure solutions for E-SSO.

On the positive side of things, there are on one hand the various mature features for the standard capabilities of Enterprise Single Sign-On solutions. On the other hand, Evidian also shows strength in innovation and provides several new and rather unique features. When looking at their product it becomes clear that Evidian is listening carefully to their customer base and is in a situation that allows them to add support for more specific use cases, having strong support for basic requirements already in place.

Security	strong positive
Functionality	strong positive
Integration	strong positive
Interoperability	positive
Usability	positive

Table 2: Evidian Enterprise SSO/Evidian Authentication Manager rating.

Evidian is among the clear Leaders in the E-SSO market segment and a logical pick for shortlists in that area.

12 Products 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 3.

Product	Security	Functionality	Integration	Interoperability	Usability
Avencis SSOX	strong positive	positive	neutral	strong positive	positive
Evidian Enterprise SSO/Evidian Authentication Manager	strong positive	strong positive	strong positive	positive	positive
i-Sprint AccessMatrix Universal Sign-On	positive	positive	neutral	positive	positive
IBM Security Access Manager for Enterprise Single Sign-On	strong positive	positive	positive	positive	positive
Imprivata OneSign	strong positive	positive	positive	positive	positive
NetIQ SecureLogin	strong positive	positive	positive	positive	positive
Oracle Enterprise Single Sign-On	strong positive	strong positive	strong positive	positive	positive
Tools4ever Enterprise Single Sign-On Manager	positive	positive	strong positive	neutral	positive

Table 3: Comparative overview of the ratings for the product capabilities.

In addition we provide in table 4 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
Avencis	strong positive	weak	weak	weak
Evidian	positive	strong positive	neutral	positive
i-Sprint	positive	critical	weak	weak
IBM	positive	positive	positive	strong positive
Imprivata	strong positive	strong positive	positive	positive
NetIQ	positive	positive	strong positive	strong positive
Oracle	positive	strong positive	strong positive	positive
Tools4ever	positive	weak	weak	weak

Table 4: Comparative overview of the ratings for vendors.

Table 4 requires some additional explanation in the case that a vendor has a “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, advanced analytical capabilities, and others. However, in this analysis all vendors scored at least neutral regarding this criterion.

The *critical* ratings are applied for *Market Position* in the case of vendors which have a very limited visibility (with that particular product and in general) 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 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 believe is that growth and successful market entry of companies into a market segment relies on strong partnerships.

12.1 The Market/Product Matrix

Beyond that analysis, we have 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.

These comparisons, for instance, use the rating in Product Leadership on the horizontal axis and relate it with the rating in other areas, which is shown on the vertical axis. The result is split into four quadrants. The upper right quadrant contains products with strength both in the product rating and in the second rating we’ve looked at in the particular matrix, e.g. innovation. The lower right quadrant contains products that are overall strong but are lacking in the dimension shown on the vertical axis.

For example, this can be products that have strong technical capabilities but are relatively new to the market, resulting in a small customer base. The upper left quadrant contains products which are typically below average in the product rating but have specific strengths regarding the second dimension we look at in the particular matrix. They might be highly innovative or very mature and established, but not being leading edge when looking at the product rating. Finally, there is the lower left quadrant that contains products suffering on both axes. However, these products might have specific strengths that are highly valuable for some specific use cases.

In that 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.

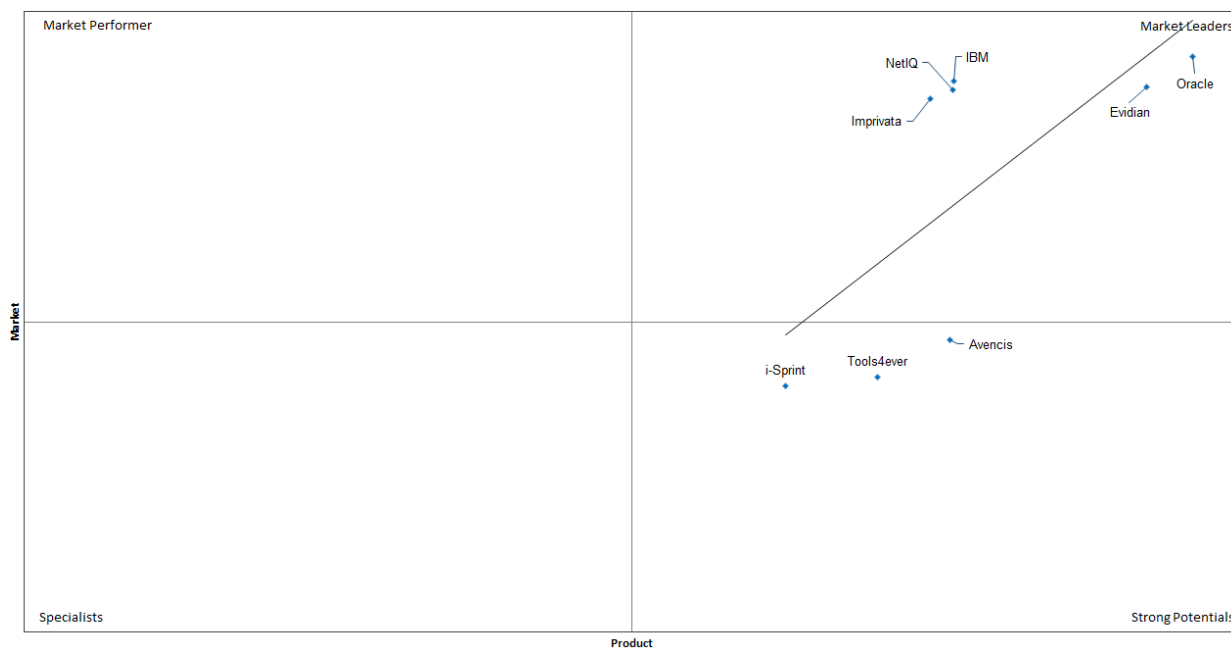


Fig. 8: The Market/Product Matrix. Vendors below the line have a weaker market position than expected according to their product maturity. Vendors above the line are sort of “overperformers” when comparing Market Leadership and Product Leadership.

The distribution in this matrix is exemplary for rather mature markets with a number of leading vendors and some Challengers, showing strong potential. Notably, none of the vendors in this KuppingerCole Leadership Compass are weak in the Product Leadership rating. Thus, there are no pure specialists or “Market Performers”.

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 due to 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.

12.2 The Product/Innovation Matrix

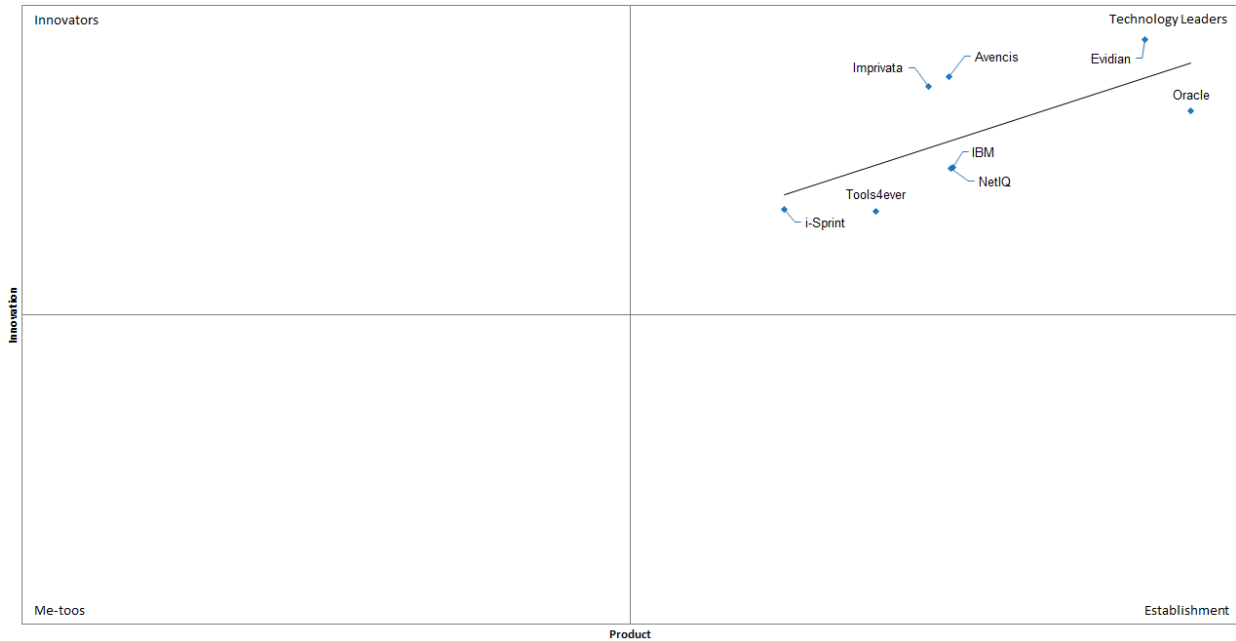


Fig. 9: The Product/Innovation Matrix. Vendors below the line are less innovative, vendors above the line are, compared to the current Product Leadership positioning, more innovative.

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.

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 that 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 providing specialized point solutions. However, in most cases this is more about delivering what others have already created.

12.3 The Innovation/Market Matrix

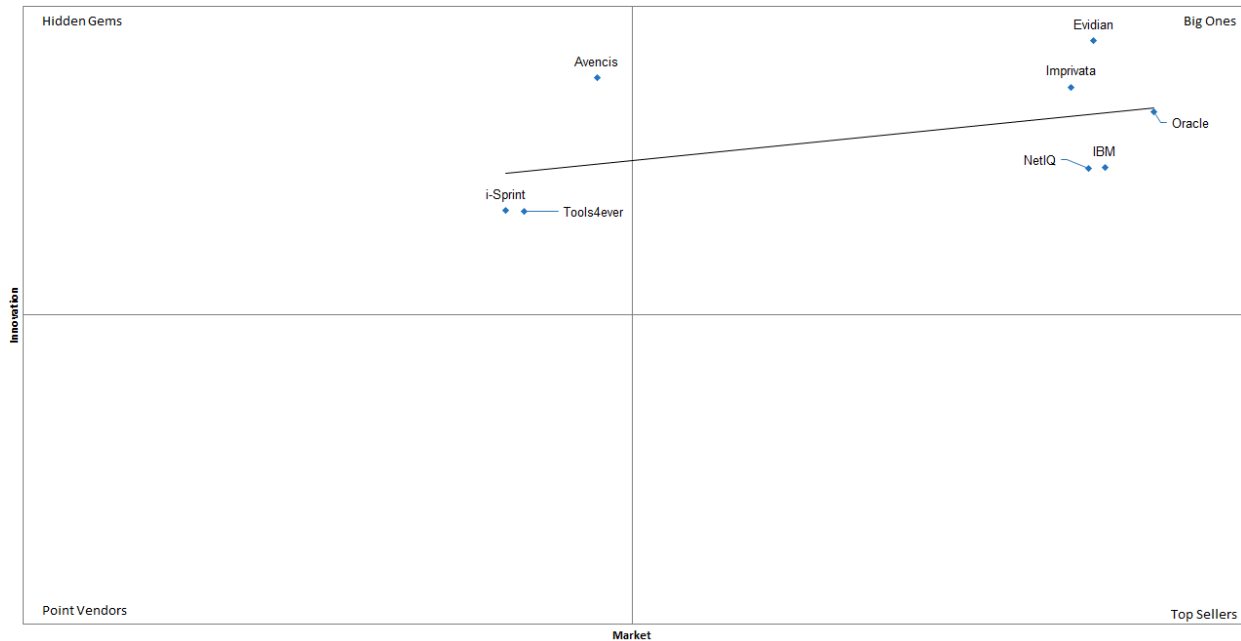


Fig. 10: The Innovation/Market Matrix. Vendors below the line are performing well in the market compared to their relatively weak position in the Innovation Leadership rating, while vendors above the line show based on their ability to innovate, the biggest potential for improving their market position.

The third relation shows how Innovation Leadership and Market Leadership are related. Again, this reflects the current status of the market with some established vendors competing for the market lead and a small number of Challengers – all of them being rather innovative, but with a relatively small market share.

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 that 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 when looking at 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 that 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.

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 11.



Fig. 11: Overall Leaders in the Enterprise Single Sign-On market segment [Note: There is only a horizontal axis. Vendors to the right are positioned better.].

In the Overall Leadership rating, there are five vendors in the Leaders segment, competing rather head-to-head. Three other vendors are rated as Challengers. All of them have a good potential to close the gap. Given that Overall Leadership is a combined rating of Product Leadership, Innovation Leadership, and Market Leadership, the main reason for some vendors being rated Challengers is that their market presence is not as broad as that of the leading companies. For instance, i-Sprint is only addressing the APAC (Asia/Pacific) market as of now. This impacts the overall rating. Notably, all vendors in the analysis have mature and comprehensive offerings for Enterprise Single Sign-On, so there is no single vendor that must be considered immature or as a specialist serving only very specific use cases.

Among the Leaders, Evidian and Oracle are a little in front. While Evidian shows overall strength in all areas of the Leadership ratings, Oracle benefits from its strong market presence and ecosystem, while still being a technically leading-edge offering.

Again: Leadership does not automatically mean that these vendors are the best fit for a specific customer requirement. A thorough evaluation of these requirements and a mapping to the features provided by the vendor's products is mandatory.

14 Vendors and Market Segments to watch

Besides the vendors covered in this KuppingerCole Leadership Compass on Enterprise Single Sign-On, there are several other vendors which either declined participation in this KuppingerCole Leadership Compass, have only a slight overlap with the topic of this document, or are not (yet) mature enough to be considered in this document. This includes the following vendors:

- CA Technologies considered their solution as not fitting perfectly well into the market segment we have defined. We recommend looking at that solution anyway.
- Dell (formerly Quest Software) provides an Enterprise SSO solution that is in fact OEMed by Evidian. Thus, the ratings for the Evidian E-SSO solution apply to this product as well.
- HID Global did not respond to our questionnaire. We still consider them being an interesting and relevant player in the market, but could not include them in this evaluation due to their lack of participation.

Aside from looking purely at the Enterprise Single Sign-On vendors, we strongly recommend creating a holistic strategy for handling authentication (including sign-on) and authorization of all kinds of users, using all kinds of devices, to all kinds of applications and services regardless of their deployment model. Such a strategy helps identifying the need and “sweet spot” for Enterprise Single Sign-On and the added value such solutions can deliver.

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