



SelectHub

Confidence in Software

Business Intelligence Tools Scorecard

Generated specifically for kantinan nantanadisai on Mon, January 13, 2020 at 10:27 UTC

Detailed Vendor Responses






1	<u>Ancillary Requirements</u>
1.1	<u>Integrations</u>
1.1.1	<u>ETL Integration</u>
1.1.2	<u>Datafile Support</u>
1.1.3	<u>ERP Integration</u>
1.1.4	<u>Big Data Connectors</u>
1.1.5	<u>CRM Integration</u>
1.1.6	<u>API/Web Services</u>
2	<u>Functional Requirements</u>
2.1	<u>Data Modeling</u>
2.1.1	<u>Reusable Data Models</u>
2.2	<u>Data Visualization</u>
2.2.1	<u>Storyboarding</u>
2.2.2	<u>Visual Interaction</u>
2.2.3	<u>Geospatial Data Visualization</u>
2.3	<u>General Analytics</u>
2.3.1	<u>Big Data Analytics</u>
2.3.2	<u>Forecasting</u>
2.3.3	<u>Real-time Data</u>
2.3.4	<u>In-Memory Analysis</u>
2.3.5	<u>Social Media Analytics</u>
2.3.6	<u>Ad Hoc Analysis</u>
2.3.7	<u>Web Analytics</u>
2.3.8	<u>Geolocation Analysis</u>
2.3.9	<u>Machine Learning</u>
2.4	<u>Platform Functions</u>
2.4.1	<u>Automated Workflows</u>
2.4.2	<u>User Friendly</u>
3	<u>Project Financials and Budget</u>
3.1	<u>License Type</u>
3.1.1	<u>Open Source</u>
3.1.2	<u>Proprietary / Commercial</u>
3.2	<u>Support</u>
3.2.1	<u>Severity Levels</u>

3.3	Training
3.3.1	Recorded Training Videos
4	Technical Requirements
4.1	Availability & Scalability
4.1.1	Linear Scalability
4.1.2	Dynamic Scale
4.2	Big Data Integration
4.2.1	MapReduce
4.2.2	Hadoop
4.2.3	Cassandra
4.2.4	NoSQL Data Sources
4.3	Deployment Environment
4.3.1	Mobile
4.3.2	Hosted Installation
4.4	Native Security
4.4.1	Encryption: Data at Rest and Data Transmission
4.4.2	Role/User-based Security
4.5	OS Support
4.5.1	Mac OS X
4.5.2	Windows
4.5.3	Linux
4.5.4	Android
4.5.5	iOS
4.6	Virtualized Environments/Virtualized Security
4.6.1	Virtualized Environments/Virtualized Security
5	Vendor Qualification
5.1	Consulting & Professional Services
5.1.1	Training
5.2	Maintenance
5.2.1	Maintenance Contracts
5.3	Market Performance
5.3.1	Customer Recommendations
5.3.2	Company's Social Media presence and their associated number of Likes/Followers
5.3.3	Social Reviews
5.4	User Support
5.4.1	Chat & Instant Message
5.4.2	Forum/Community Support
5.4.3	Phone & Email
5.5	Vendor Information






1 Ancillary Requirements

1.1 Integrations



1.1.1 ETL Integration The solution should be able to integrate with extract-transform-load (ETL) tools. high priority




 Power BI	Fully Supported Out of the Box (100) Microsoft Business Intelligence platform provides ETL (Extract, Transform, Load) processes and - thereby - supports data segregation and warehousing.
	Fully Supported Out of the Box (100)
	Supported with Additional Modules (60) SAP has a separate EIM/ETL offering which extracts and loads the data into the supported data sources like SAP HANA and SAP BW. And Lumira allows end users to connect to these sources in both live and imported modes.
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100) Tableau Server is able to integrate with extract-transform-load (ETL) tools.

1.1.2 Datafile Support The solution supports reading and interacting with data from sources outside of OLAP and databases, such as .csv and .txt files, in order to analyze unstructured and semi-structured data within the organization. high priority

 Power BI	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100) SAP Lumira allows users to load data from .csv, .xls and text files directly and analyze it. If these files are stored on shared locations which is accessible from the BI platform, such documents would be refreshable as well.
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100) Tableau Server supports reading data from sources outside of OLAP and databases, such as .csv and .txt files, in order to analyze unstructured and semi-structured data within the organization.






1.1.3 ERP Integration The solution should be able to integrate with ERP solutions. medium priority

 Power BI	Supported with Additional Modules (60) The solution can integrate with ERPs.
	Fully Supported Out of the Box (100) QlikView supports ERP integration. The Qlik Connector for SAP, enabling analytics from a variety of SAP systems

	Fully Supported Out of the Box (100) SAP Lumira allows end-users to connect to SAP ERP, S4HANA and SAP BW.
	Fully Supported Out of the Box (100)
	Supported with Additional Modules (60) Tableau Software can be integrated with ERP solutions.






1.1.4 Big Data Connectors The solution should be able to integrate with Big Data connectors.

medium priority

	Fully Supported Out of the Box (100) Using the Power Query users and business analysts can ingest, transform, integrate and enrich big data directly in the Power BI web service.
	Supported with Additional Modules (60) Qlikâ€™s easy data integration tools bring together multiple disparate data sources to provide a comprehensive picture of your business. Qlik solutions can easily connect to virtually any data source, including file-based sources like Excel and XML web content, application-specific data such as Salesforce and SAP, and Big Data sources like Hadoop, Teradata, and Cloudera
	Supported with Partner Integrations (50) SAP Lumira has partner extensions like ZoomData that allows live streaming of BigData.
	Fully Supported Out of the Box (100) Yes, Sisense can integrate with Big Data Connectors.
	Fully Supported Out of the Box (100) Tableau provides big-data connectors for various big-data related applications.






1.1.5 CRM Integration The solution should be able to integrate with CRM tools.

high priority

	Fully Supported Out of the Box (100) Microsoft Dynamics CRM Integration-Visualize and analyze your Microsoft Dynamics CRM data. Gain insights into your sales pipeline, discover your most promising leads and uncover your top opportunities.
	Supported with Additional Modules (60) Qlik Connectors include the Qlik Salesforce Connector, which improves CRM analytics and sales visibility
	Supported with Additional Modules (60) SAP Lumira allows connecting to SAP Hybris C4C via Data Access extension. Further, SAP Lumira allows connecting to CRM solutions by building universes on top of them.
	Fully Supported Out of the Box (100) Sisense supports integration with other CRM systems.
	Supported with Additional Modules (60) Tableau Software can be integrated with CRM tools.

1.1.6 API/Web Services The solution provides an API (Application Programming Interface) or Web Services for custom integration with other solutions.






high priority

 Power BI	Fully Supported Out of the Box (100) Hosting and consuming web-services is available using Power BI.
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100) SAP Lumira documents once published on BI platform can be embedded into other solutions via open document links which can be parameterized to get contextual analytics. Further, SAP Lumira provides SDK to build custom extensions for connecting to additional data sources.
	Fully Supported Out of the Box (100) Sisense provides APIs and additional developer tools that let users interact with the Sisense platform. These tools provide more options and flexibility for managing, enhancing and customizing the functionality and user experience of the Sisense platform.
	Fully Supported Out of the Box (100) Tableau Server provides an API (Application Programming Interface) or Web Services for custom integration with other solutions.

2 Functional Requirements


2.1 Data Modeling





2.1.1 Reusable Data Models The solution has the ability to let users create reusable data models to enhance future searches and analysis. *medium priority*

 Power BI	Fully Supported Out of the Box (100) Microsoft Power BI offers SQL Server Analysis Services through which users can quickly build reusable models using the overall data.
	Fully Supported Out of the Box (100) Reusable data models is an inbuilt feature in QlikView.
	Fully Supported Out of the Box (100) SAP Lumira allows users to save the Lumira documents with blank stories. This allows end users to copy and use such documents as templates and create their own stories on top of them. Additionally, SAP Lumira lists recently used xls/csv/files and connections to allow end users to quickly start building on top of them
	Fully Supported Out of the Box (100) In Sisense, Designers can import data into an Elasticube from a variety of sources. Users can see a list of their Elasticubes and create new Elasticubes from the Data page in the Sisense Web Application.
	Supported with Additional Modules (60) Yes, schemas are saved on the server and have the ability to be reused.

2.2 Data Visualization






2.2.1 Storyboarding The solution allows users to create a visual (or graphic) outline of the content. *high priority*

	Fully Supported Out of the Box (100) With MS Power BI, User can create reports with interactive data visualizations. Users can tell their data
---	--

	story using a drag-and-drop canvas and more than 85 modern data visuals from Microsoft and partners”or User can create their own using the Power BI open source custom visuals framework
	Fully Supported Out of the Box (100) QlikView allows users to create a visual (or graphic) outline of the content.
	Fully Supported Out of the Box (100) SAP Lumira presents users with a canvas where users can place text, images, visualizations and input controls in a precise manner. Layout algorithm also assists users when inserting new objects on the canvas.
	Fully Supported Out of the Box (100) The Sisense REST API enables users to programmatically create dashboards by defining the basic properties of a dashboard such as Title, ElastiCube (datasource), and the owner. After defining the properties of the dashboard, users can define its visualizations by including the widget IDs of pre-existing widgets.
	Fully Supported Out of the Box (100) Tableau allows representation of data which can be tweaked in far extent (colors, layout, tailored calculations, and representations, no limitations).


2.2.2 Visual Interaction
The solution allows users to build data queries with code-free “drag and drop” visual tools to enable non-technical personnel to easily find desired data across a combination of different sources.





medium priority

	Fully Supported Out of the Box (100) With MS Power BI, users can create reports with interactive data visualizations. Users can tell their data story using a drag-and-drop canvas and more than 85 modern data visuals from Microsoft and partners”or users can create their own, using the Power BI open source custom visuals framework. Users can design their report with theming, formatting, and layout tools.
	Fully Supported Out of the Box (100) QlikView allows users to build data queries with code-free “drag and drop” visual tools.
	Fully Supported Out of the Box (100) SAP Lumira allows drag and drop of dimensions/measures on to the visualization. Users can filter, exclude, rank & sort visually to alter the results of the query. They can also merge/blend and define joins visually to combine data from multiple sources.
	Fully Supported Out of the Box (100) Users can use the sample ElastiCubes that are installed with Sisense if they have not created their own ElastiCube. The Sisense REST API enables users to programmatically create dashboards by defining the basic properties of a dashboard such as Title, ElastiCube (datasource), and the owner. After defining the properties of the dashboard, users can define its visualizations by including the widget IDs of pre-existing widgets.
	Fully Supported Out of the Box (100) Tableau allows users to quickly build powerful calculations from existing data, drag and drop reference lines and forecasts, and review statistical summaries.

2.2.3 Geospatial Data Visualization
The solution supports analysis of geospatial data through interactive visualization. The solution helps intelligent and dynamic analysis of information with respect to a particular geography.

medium priority






	Supported with Additional Modules (60) Google Map layers and Geo charting is available in MS Power BI
---	---

	Supported with Additional Modules (60) <p>Qlik provides Geospatial Data Visualization by its value-added product called Qlik GeoAnalytics.</p>
	Fully Supported Out of the Box (100) <p>SAP Lumira comes embedded with the support of ESRI maps. Users can geo enrich their data via inbuilt enrichment algorithms or via lat/long information. This information can then be presented on a map in a spatial manner. SAP Lumira also supports rendering multiple layers on the map, and users can also bring in custom layers from their ESRI account.</p>
	Fully Supported Out of the Box (100) <p>Sisense provides Scatter Maps that allow users to visualize geographical data as data points on a map. The map distinguishes data using different colors and sizes for the data points on the map.</p>
	Fully Supported Out of the Box (100) <p>Map data natively integrates into Tableau. Users can quickly see their geospatial data in Tableau. With region names, airport codes, and population data included, user's maps data becomes even more meaningful.</p>

2.3 General Analytics

2.3.1 Big Data Analytics The solution has the ability to support and query large, hybrid, columnar, and array-based data sources, such as Hadoop, MapReduce, or other NoSQL databases, to analyze full range of available business data.






medium priority

	Fully Supported Out of the Box (100) <p>MS Power BI provides data connectors to support and query Big Data Analytics sources. Also using the Power Query experience familiar to Power BI Desktop and Excel users, business analysts can ingest, transform, integrate and enrich big data directly in the Power BI web service – including data from a large and growing set of supported on-premises and cloud-based data sources, such as Dynamics 365, Salesforce, Azure SQL Data Warehouse, Excel and SharePoint.</p>
	Fully Supported Out of the Box (100) <p>Qlik’s easy data integration tools bring together multiple disparate data sources to provide a comprehensive picture of data. Qlik solutions can easily connect to virtually any data source, including file-based sources like Excel and XML web content, application-specific data such as Salesforce and SAP, and Big Data sources like Hadoop, Teradata, and Cloudera.</p>
	Fully Supported Out of the Box (100) <p>SAP Lumira can connect to Big data sources like SAP HANA, SAP HANA Vora, Cloudera, etc. Additionally, SAP also has partner extensions for real time streaming of Big Data.</p>
	Fully Supported Out of the Box (100) <p>The ElastiCube Manager enables easy and quick access to databases, tables and views contained within MongoDB databases. The Sisense ODBC Driver with SQL Connector for Apache Hive enables standard SQL-92 access directly to Apache Hive distributions. It efficiently maps SQL to HiveQL delivering full SQL application functionality and real-time analytic and reporting capabilities to the viewers.</p>
	Fully Supported Out of the Box (100) <p>Tableau works seamlessly with Big Data databases in addition to more traditional databases, users can have one interface into all of their data.</p>

2.3.2 Forecasting The solution allows users to forecast future trends on the basis of past data and trends.






high priority

	Fully Supported Out of the Box (100)
--	---

 Power BI	Budgeting & Forecasting templates are designed in MS Power BI Report Designer, via MS Excel.
	Fully Supported Out of the Box (100) QlikView provides forecasting and trending analysis.
	Fully Supported Out of the Box (100) SAP Lumira allows users to do basic forecasting while using a TimeSeries chart.
	Fully Supported Out of the Box (100) Sisense's Predictive Trend Line add-on displays linear, exponential, and logarithmic trend lines in the dashboard charts. The trend line allows an end user to predict future values/metrics based on the historical data.
	Fully Supported Out of the Box (100) By using Tableau, users can quickly build powerful calculations from existing data, drag and drop reference lines and forecasts, and review statistical summaries.



2.3.3 Real-time Data
The solution allows access to data delivered immediately after collection.



medium priority

 Power BI	Fully Supported Out of the Box (100) MS Power BI facilitates publish real-time content that users can access in the office or on the go.
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100) SAP Lumira designer (formerly Design Studio) supports streaming of data when connecting to ESP data source. Additionally, partner extension from ZoomData for SAP Lumira, Signer, supports live streaming of data from BigData sources.
	Fully Supported Out of the Box (100) Sisense Live Connect queries are run directly against the data source. Sisense performs no additional caching on the data. Traditionally, your data was only as fresh as your latest ElastiCube build. With live connections, you can refresh your dashboards manually or set them to refresh automatically every few seconds. When you add a live connection, Sisense creates a data set. A data set includes connection and credential details to the data source and defines the table where live data is pulled from. Each data set supports a single table from your data source. After creating a data set, it is displayed in the ElastiCube page of the Admin page from where you can manage all your data sets.
	Fully Supported Out of the Box (100) Tableau supports incremental load allowing real-time refresh of data. They have a client with a 3-second automatic refresh of the dashboard after data modification in the database and it works successfully.

2.3.4 In-Memory Analysis
The solution enables users to run queries on data residing in a computer’s random access memory (RAM).






low priority

 Power BI	Not Supported (0) N/A
	Fully Supported Out of the Box (100) QlikView provides In-memory analysis: Utilizing the Qlik Indexing engine (QIX) optimization of in-memory storage to compress data down to 10% of its original size.
	Fully Supported Out of the Box (100)

	SAP Lumira uses in-memory velocity engine for imported data scenarios.
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100)





2.3.5 Social Media Analytics
The solution enables users to gather and analyze data from blogs and social media websites to make business decisions.

high priority

	Supported with Additional Modules (60) Any data source can be added to MS Power BI including social media data sources, but MS Power BI is not a tool specially made for out of the box for social media analytics.
	Fully Supported Out of the Box (100)
	Supported with Partner Integrations (50) Some of the Data Access extensions exist that connect to Social media tools to extract data and import that into SAP Lumira.
	Fully Supported Out of the Box (100) Sisense allows users to connect and analyze data from multiple sources including Social Media. With suggestions and an intuitive visual interface, Sisense makes it easy for any user to combine data and discover hidden insights in one place without the usual scripting, coding, and IT hand-holding.
	Supported with Additional Modules (60) Any data source can be added to Tableau including social media data sources, but Tableau is not a tool specially made for out of the box for social media analysis.

2.3.6 Ad Hoc Analysis
The solution facilitates analysis of a single, specific business question.

high priority

	Fully Supported Out of the Box (100) With MS Power BI, the end user has the ability to determine how to explore the data as needed.
	Fully Supported Out of the Box (100) QlikView provides Ad Hoc Analysis.
	Fully Supported Out of the Box (100) SAP Lumira allows end users to connect to any of the supported data sources and start their analysis by presenting them a list of measures and dimensions in the data model. They can start with any visualization and drag and drop dimensions on the feeds to display the chart. Further they can interact by using filter, exclude, drill, sort, and rank options.
	Fully Supported Out of the Box (100) To enable users to quickly and easily create meaningful visualizations in the dashboard, Sisense displays field suggestions to Dashboard Designers when creating new widgets. After creating the first dashboard, Sisense begins to display field suggestions the next time they create a widget. When determining what fields to suggest, Sisense looks at fields being used in other widgets on the same server, which fields are typically working together in other widgets, and what fields users have already selected. Fields that are already being used in the widget are not suggested. Sisense has exposed the POST /suggestions API endpoint in the Sisense 1.0 REST API that enables users to retrieve a list of suggestions based on Sisense’s algorithm for calculating field suggestions. This is useful for displaying suggested fields in the application.



Fully Supported Out of the Box (100)

Using Tableau, business users can perform ad-hoc analysis in an easy and intuitive format.

2.3.7 Web Analytics The solution allows collection, analysis and reporting of web data to understand and optimize web usage.

high priority



Supported with Additional Modules (60)

Any data source can be added to MS Power BI including web data sources, but Power BI is not a tool specially made for out of the box for web behavior analytics.



Fully Supported Out of the Box (100)



Supported with Additional Modules (60)

SAP Lumira supports visualizing the data from SAP Web Analytics



Fully Supported Out of the Box (100)

Sisense allows users to connect and analyze data from multiple sources including Web. With suggestions and an intuitive visual interface, Sisense makes it easy for any user to combine data and discover hidden insights in one place without the usual scripting, coding, and IT hand-holding.



Supported with Additional Modules (60)

Any data source can be added to Tableau web data sources, but Tableau is not a tool specially made for out of the box for web behavior analysis.

2.3.8 Geolocation Analysis The solution should provide the ability to handle maps, drill down to information based on a specific region, or use data that is automatically refreshed according to a specific location, i.e., location intelligence.

medium priority



Supported with Additional Modules (60)

Google Map layers and Geo charting is available with MS Power BI



Supported with Additional Modules (60)

Qlik provides Geolocation Analysis by its value-added product called Qlik GeoAnalytics.



Fully Supported Out of the Box (100)

SAP Lumira embeds ESRI Maps for Geo Spatial rendering of data. SAP Lumira also provides geo enrichment of data based on names or latitude/longitude. Customers can also bring in custom Geo Layers from their existing ESRI servers and use those layers on top of map along map visualizations. Customers can also bring in Geo JSON in SAP Lumira designer to address custom mapping use cases. Drill up/down is supported in maps for the geo hierarchies.



Supported with Custom Development (25)

Sisense can create google maps and heat map using the plugin Api.



Fully Supported Out of the Box (100)

With instant geocoding, Tableau automatically turns the location data and information user already have into rich, interactive maps with 16 levels of zoom or user can use custom geocodes to map what matters to their business. Census-based population, income, and other standard demographic datasets are built in. In the visual environment of Tableau, users can explore the world through data and share what they find in just a few clicks. Users can even import geographic data from R or GIS (or whatever other spatial files or custom geocode data you have) and make it more easily accessible, interactive, and shareable via Tableau Online, Tableau Public, and Tableau Server.

2.3.9 Machine Learning The solution should be able to learn from previous computations to produce reliable, repeatable decisions and results. The solution should have the ability to

medium priority

automatically apply complex mathematical calculations to Big Data



Supported with Additional Modules (60)

MS Power BI supports Machine Learning by integrating with Microsoft's Azure Machine Learning.



Supported with Additional Modules (60)



Supported with Additional Modules (60)

SAP Hana Vora is built on Spark which has Machine learning algorithms that can be used by customers for ML use cases. Finally, the output models can be consumed in SAP Lumira via SAP HANA Vora, connector from SAP Lumira.



Fully Supported Out of the Box (100)

Sisense's analytics chatbot incorporates machine learning to uncover and share nuggets of insights instantly. R is a software environment for statistical computing and graphics and Sisense supports the integration of R functions in the formulas. Users can write R code directly in the formula editor, and send fields as parameters OR can also combine R functionality with the regular functions to create advanced and tailored formulas. R server set up in the organization is a must.



Supported with Additional Modules (60)

Tableau's "Big Data analysis" technology relies on machine learning techniques to accomplish automated insights.

2.4 Platform Functions

2.4.1 Automated Workflows The solution offers end-to-end automated proessing and delivery of data from enterprise application sources to data warehouse via ETL tools for subsequent analysis and ensure the timely delivery of trusted BI reports to business users on a pre-scheduled or manually determined frequency.

low priority



Fully Supported Out of the Box (100)

MS Power BI automates tasks and processes.



Fully Supported Out of the Box (100)

QlikView offers built-in ETL capabilities which eliminate the need of an external ETL tool in most cases. However, it can also integrate with some third-party ETL tools to meet comprehensive ETL needs.



Supported with Additional Modules (60)

For the Purpose of ETL, SAP provides solutions that can extract and load data in SAP HANA and SAP BW periodically. SAP Lumira can then connect to these sources and consume this data and customers can create stories and dashboards. These documents can then be published and scheduled on BI platform for recurring delivery to users inbox/other destinations at user-defined frequency.



Fully Supported Out of the Box (100)

Sisense™s ElastiCubes can handle 99% of all ETL functions, skipping the need for an external tool completely for many types of business and data project.



Fully Supported Out of the Box (100)





This can be accomplished by native tools of Tableau. For more comprehensive needs, Tableau Prep is recommended.

2.4.2 User Friendly The solution is simple and intuitive providing users a good user experience.

high priority







Fully Supported Out of the Box (100)

	MS Power BI comes with a good user experience.
	Fully Supported Out of the Box (100) QlikView offers a highly polished and intuitive user experience.
	Fully Supported Out of the Box (100) SAP Lumira discovery is designed keeping in mind the business user persona and hence it has a simple to use and intuitive interface. Few of the key aspects of the product are free flow canvas, contextual actions, neat and clean interface, multiple color palettes, and preferences to customize.
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100) The interface of Tableau is very user intuitive and rated as one of the best in the industry.

3 Project Financials and Budget

3.1 License Type

3.1.1 Open Source The software is available with an open-source, free to use license, such as Apache or GPL. *medium priority*

 Power BI	No (0) N/A
	No (0) QlikView is not open-source but Qlik Sense Cloud Basic, Qlik Sense Desktop and Qlik View Personal Edition is free.
	No (0)
	No (0)



3.1.2 Proprietary / Commercial Software is available with a paid commercial or proprietary license. *medium priority*



3.2 Support

3.2.1 Severity Levels What are the severity levels and corresponding response times? *high priority*

3.3 Training

3.3.1 Recorded Training Videos Are pre-recorded training videos available? Also, when a training is done, does it get recorded and shared for future use by end-users? *high priority*






 Power BI	Yes (100) Yes
	Yes (100) Yes. They are available in the form of e-learning videos. E-learning or self-learn modules are available free of cost on QlikView.com
	Yes (100)

	Yes (100)
	Yes (100)






4 Technical Requirements

4.1 Availability & Scalability

4.1.1 Linear Scalability The solution should be able to handle increasing volumes of data and growing numbers of users for performing analytics. *high priority*



 Power BI	<p>Fully Supported Out of the Box (100)</p> <p>Yes, The solution is able to handle increasing volumes of data and growing numbers of users for performing analytics.</p>
	Fully Supported Out of the Box (100)
	<p>Supported with Custom Development (25)</p> <p>SAP BI platform provides a detailed Performance and Sizing matrix to help customers size their systems based on their peak usage.</p>
	<p>Fully Supported Out of the Box (100)</p> <p>Sisense is scalable.</p>
	Fully Supported Out of the Box (100)




4.1.2 Dynamic Scale The solution should be able to scale up / scale down horizontally to accommodate varying throughput at different times of the day. *low priority*

 Power BI	<p>Fully Supported Out of the Box (100)</p> <p>Yes, The solution is able to scale up / scale down horizontally to accommodate varying throughput at different times of the day.</p>
	Fully Supported Out of the Box (100)
	Not Supported (0)
	<p>Fully Supported Out of the Box (100)</p> <p>Sisense is scalable.</p>
	Fully Supported Out of the Box (100)

4.2 Big Data Integration






4.2.1 MapReduce The solution should provide integration with MapReduce. *low priority*

 Power BI	<p>Supported with Custom Development (25)</p> <p>The MapReduce/Spark connector can be found under the “Other” category within the Get Data dialog.</p>
	<p>Fully Supported Out of the Box (100)</p> <p>Qlik™s easy data integration tools bring together multiple disparate data sources to provide a comprehensive picture of your business. Qlik solutions can easily connect to virtually any data source,</p>

	including file-based sources like Excel and XML web content, application-specific data such as Salesforce and SAP, and Big Data sources like Hadoop, Teradata, and Cloudera
	Supported with Partner Integrations (50) SAP Lumira can connect to Big data sources like SAP HANA, SAP HANA Vora, Cloudera, etc. Additionally, SAP also has partner extensions for real time streaming of Big Data.
	Fully Supported Out of the Box (100)
	Supported with Additional Modules (60) Tableau Software provides integration with MapReduce.






4.2.2 Hadoop
The solution should provide integration with Hadoop.

low priority

	Supported with Custom Development (25) The Hadoop connector can be found under the “Other” category within the Get Data dialog.
	Fully Supported Out of the Box (100) Qlik’s easy data integration tools bring together multiple disparate data sources to provide a comprehensive picture of your business. Qlik solutions can easily connect to virtually any data source, including file-based sources like Excel and XML web content, application-specific data such as Salesforce and SAP, and Big Data sources like Hadoop, Teradata, and Cloudera
	Supported with Partner Integrations (50) SAP Lumira can connect to Big data sources like SAP HANA, SAP HANA Vora, Cloudera, etc. Additionally, SAP also has partner extensions for real time streaming of Big Data.
	Fully Supported Out of the Box (100) Sisense connects Hadoop via Hive. The Sisense ODBC Driver with SQL Connector for Apache Hive enables standard SQL-92 access directly to Apache Hive distributions. It efficiently maps SQL to HiveQL delivering full SQL application functionality and real-time analytic and reporting capabilities to the viewers.
	Fully Supported Out of the Box (100) Tableau has an in-built connector for Hadoop.

4.2.3 Cassandra
The solution should provide integration with Cassandra.






low priority

	Supported with Custom Development (25) The Cassandra connector can be found under the “Other” category within the Get Data dialog.
	Fully Supported Out of the Box (100)
	Supported with Partner Integrations (50) SAP Lumira can connect to Big data sources like SAP HANA, SAP HANA Vora, Cloudera, etc. Additionally, SAP also has partner extensions for real time streaming of Big Data.
	Fully Supported Out of the Box (100)
	Supported with Additional Modules (60) Tableau Software provides integration with Cassandra.

4.2.4 NoSQL Data Sources

The solution should provide integration with NoSQL data sources.

medium priority






 Power BI	Supported with Custom Development (25) Many NoSQL Data connector can be found under the “Other” category within the Get Data dialog.
	Fully Supported Out of the Box (100) Connections to a MongoDB database are made by selecting MongoDB from the list of drivers in the list of connectors in the QlikView ODBC Connection dialog or the Qlik Sense Add data or Data load editor dialogs.
	Supported with Partner Integrations (50) SAP Lumira can connect to Big data sources like SAP HANA, SAP HANA Vora, Cloudera, etc. Additionally, SAP also has partner extensions for real time streaming of Big Data.
	Fully Supported Out of the Box (100) Sisense has native connectors to many SQL databases, NoSQL sources, and popular web applications. Sisense also provides generic frameworks for connecting to many more.
	Fully Supported Out of the Box (100) Tableau Software provides integration with NoSQL data sources.

4.3 Deployment Environment

4.3.1 Mobile

The system provides mobile platform access for iOS, Android, or other mobile devices.

high priority




 Power BI	Fully Supported Out of the Box (100) Yes, The system provides mobile platform access for iOS, Android, or other mobile devices.
	Fully Supported Out of the Box (100) QlikView provides mobile platform access for iOS, Android, or other mobile devices.
	Fully Supported Out of the Box (100) SAP Lumira as well as other BI content like Webi, Xcelsius, Crystal reports, etc. all can be consumed on IOS and Android devices via Mobile BI App.
	Fully Supported Out of the Box (100) Sisense can be downloaded from iOS and Android platforms and can be used to access reports and dashboards.
	Fully Supported Out of the Box (100) Tableau provides mobile platform access for iOS, Android, or other mobile devices.

4.3.2 Hosted Installation

The solution is available as a fully hosted, Software as a Service (SaaS) offering.






high priority

 Power BI	Fully Supported Out of the Box (100) Yes, The solution is available as a fully hosted, Software as a Service (SaaS) offering.
	Fully Supported Out of the Box (100) QlikView is available as a fully hosted, Software as a Service (SaaS) offering.
	Supported with Custom Development (25)




	SAP BI platform can be installed on cloud like Azure, SAP HEC, Google Cloud, etc. SAP Lumira is supported on Citrix environment.
	Fully Supported Out of the Box (100) Sisense can be deployed either On-Premise, Cloud or Hybrid.
	Fully Supported Out of the Box (100)



4.4 Native Security

4.4.1 Encryption: Data at Rest and Data Transmission The solution provides encryption capabilities for stored data to ensure that data-at-rest is protected and in-transit information is secure. high priority

	Fully Supported Out of the Box (100) The solution provides encryption capabilities for stored data to ensure that data-at-rest is protected and in-transit information is secure.
	Supported with Additional Modules (60) Qlik through Qlik Sense supports confidentiality. Sensitive information (for example, passwords and connection strings) that is used to access external data sources is stored with encryption.
	Fully Supported Out of the Box (100) SAP supports TLS 1.2/1.1 and SNC protocol to secure communication channels between clients, servers and data sources. Data in Central Repository (CMS) is encrypted and stored. Data in file repository server, which stores the documents, is secured via OS encryption.
	Fully Supported Out of the Box (100) Sisense is built around a robust and flexible security architecture that is both comprehensive and intuitive. This architecture has been designed to ensure security processes are enforced while scaling to enterprise deployments of Sisense. This includes the ability to secure dashboards and data as well as implement custom security requirements. Security is based around three levels associated with sets of security features.
	Fully Supported Out of the Box (100)






4.4.2 Role/User-based Security The system enables user and/or role based permissions to be configured in order to control what system features and data users can access. high priority

	Fully Supported Out of the Box (100) The system enables user and/or role-based permissions to be configured in order to control what system features and data users can access.
	Fully Supported Out of the Box (100)
	Fully Supported Out of the Box (100) SAP BI platform allows admins to configure role based authorizations to the users or group of users across SAP Lumira content.
	Fully Supported Out of the Box (100) Sisense licenses three categories of roles: Administrator: Administrators can access the Admin page of the Sisense Web Application from where they can manage all system configuration, data sources, ElastiCubes, users, user groups and more. Sisense supports multiple Administrators. Note: Sys. Admin is a special type of Administrator who installs Sisense on the system. There is only one Sys. Admin per account. Data Admin: Data Administrators can manage all data sources in the system. They have access to the Admin page of the Sisense Web Application where they can only manage ElastiCubes and live connections. Data






	Administrators can also add and manage servers. This is useful for migrating Sisense across environments. Data Administrators do not have access to User Management and System Configuration. Data Designer: Data Designers can create and edit ElastiCubes they created or were shared with them. Data Designers can access the Admin page of the Sisense Web Application where they can manage the ElastiCubes and live Connections they have access to in the Data Sources page. In addition, Data Designers can see servers, but can not add new servers. Data Designers do not have access to User Management and System Configuration. Designer: Designers can create, design, edit and share dashboards. Sisense Designers determine whether the user with who they share a dashboard has editing rights (is a Designer) or only viewing rights (Viewer). Viewer: Viewers can view, explore, drill down, make selections and filter the dashboards that Designers share with them. Viewers only need a standard web browser; no plugins or downloads. They cannot create new dashboards or edit existing ones.
	Supported with Additional Modules (60)

4.5 OS Support



4.5.1 Mac OS X The solution can be installed on the Mac OS X operating solution. *medium priority*




	Fully Supported Out of the Box (100) Yes, The solution can be installed on the Mac OS X operating solution.
	Fully Supported Out of the Box (100) QlikView can be installed on the Mac OS X operating solution.
	Not Supported (0) SAP Lumira allows end to end document creation for SAP BW live and SAP HANA live via browser. And for all other data sources these documents can be modified and viewed via browser. Hence, the support on MAC OS is via safari and chrome browser.
	Fully Supported Out of the Box (100) Sisense can be installed on Mac.
	Fully Supported Out of the Box (100)

4.5.2 Windows The solution can be installed on a Microsoft Windows operating solution. *high priority*

	Fully Supported Out of the Box (100) Yes, The solution can be installed on a Microsoft Windows operating solution.
	Fully Supported Out of the Box (100) QlikView can be installed on a Microsoft Windows operating solution.
	Fully Supported Out of the Box (100) Both SAP Lumira and SAP BI platform servers can be installed on Microsoft Windows environment.
	Fully Supported Out of the Box (100) Sisense can be installed on Windows.
	Fully Supported Out of the Box (100)






4.5.3 Linux The solution can be installed on a Linux operating solution. *low priority*

	Fully Supported Out of the Box (100) Yes, The solution can be installed on a Linux operating solution.
	Fully Supported Out of the Box (100)

	QlikView can be installed on a Linux operating solution.
	Not Supported (0) SAP BI platform can be installed and run on Redhat, Suse and Oracle Linux. SAP Lumira is a desktop client and not supported on Linux OS.
	Fully Supported Out of the Box (100) Sisense can be installed on Linux.
	Supported with Additional Modules (60)






4.5.4 Android
The solution can be installed on a Android operating solution.

high priority

 Power BI	Fully Supported Out of the Box (100) Yes, The solution can be installed on an Android operating solution.
	Fully Supported Out of the Box (100) QlikView can be installed on an Android operating solution.
	Fully Supported Out of the Box (100) SAP Lumira documents can be consumed via SAP Mobile BI app available for Android devices.
	Fully Supported Out of the Box (100) Sisense supports this functionality. Sisense Pulse lets users monitor important KPIs and manage alerts from Sisense Mobile.
	Fully Supported Out of the Box (100)

4.5.5 iOS
The solution can be installed on a iOS operating solution.


high priority





 Power BI	Fully Supported Out of the Box (100) Yes, The solution can be installed on an Android operating solution.
	Fully Supported Out of the Box (100) QlikView can be installed on an iOS operating solution.
	Fully Supported Out of the Box (100) SAP Lumira documents can be consumed via SAP Mobile BI app available for IOS devices.
	Fully Supported Out of the Box (100) Sisense supports this functionality. Sisense Pulse lets users monitor important KPIs and manage alerts from Sisense Mobile.
	Fully Supported Out of the Box (100)

4.6 Virtualized Environments/Virtualized Security

4.6.1 Virtualized Environments/Virtualized Security
The solution provides virtualized environments when configured with proper underlying OS and hardware. The solution can run on a virtualization platform such as OS installed on VMWare, Citrix, Microsoft Hyper-V, KVM, Parallels, etc.

high priority






 Power BI	Supported with Additional Modules (60) The solution provides virtualized environments when configured with proper underlying OS and hardware.
--	---

	The solution can run on a virtualization platform such as OS installed on Microsoft Hyper-V.
	Fully Supported Out of the Box (100) QlikView provides virtualized environments when configured with proper underlying OS and hardware.
	Fully Supported Out of the Box (100) SAP Lumira is supported on virtualized environments.
	Fully Supported Out of the Box (100)
	Supported with Additional Modules (60)

5 Vendor Qualification






5.1 Consulting & Professional Services

5.1.1 Training Does the vendor offer training services, classes, or other instructional services? *medium priority*

 Power BI	Yes (100) Yes
	Yes (100) E-learning or self-learn modules are available on QlikView.com. Live classroom training or online (virtual classroom) training and dedicated course (1 company) for up to 10 people are provided at a cost.
	Yes (100)
	Yes (100)
	Yes (100) Yes, it offers training services, classes, or other instructional services.

5.2 Maintenance

5.2.1 Maintenance Contracts Does the vendor offer maintenance contracts for supported software to ensure that updates, upgrades, and services are regularly received? *medium priority*

 Power BI	No (0) No. Microsoft's partners provide maintenance contracts.
	Yes (100) Yes
	Yes (100)
	Yes (100)
	Yes (100)

It offers maintenance contracts for supported software to ensure that updates, upgrades, and services are regularly received.

5.3 Market Performance






5.3.1 Customer Recommendations Is the vendor highly recommended by other customers? *high priority*

5.3.2 Company's Social Media presence and their associated number of Likes/Followers Does the Vendor have an official Facebook account or any recognized social media platforms like LinkedIn or Twitter? Are they responsive to queries through their profile page on such social platforms? *low priority*






5.3.3 Social Reviews Are social reviews and testimonials from community users favorable? *low priority*

5.4 User Support

5.4.1 Chat & Instant Message Does the vendor offer Help Desk support via instant message/chat for ease of live communication? *low priority*






 Power BI	Yes (100) Yes, Microsoft offers Help Desk support via instant message/chat for ease of live communication
	No (0) No.
	Yes (100)
	No (0)
	No (0) Tableau does not offer Help Desk support via instant message/chat for ease of live communication.

5.4.2 Forum/Community Support Does the product have a community support forum for solution users to interact and provide assistance to one another? *low priority*

 Power BI	Yes (100) Microsoft Power BI have a community support forum for solution users to interact and provide assistance to one another
	Yes (100) Yes. Qlik Community is very resourceful.
	Yes (100)
	Yes (100) Sisense provides a Forum and Community support for the users to exchange knowledge.
	Yes (100) Tableau has a community support forum for solution users to interact and provide assistance to one another.

5.4.3 Phone & Email Does the vendor offer Help Desk support via telephone and email?





high priority

	<p>Yes (100)</p> <p>Yes, Microsoft offers Help Desk support via telephone and email</p>
	<p>Yes (100)</p> <p>Yes, QlikView offers Help Desk support via telephone and email.</p>
	<p>Yes (100)</p> <p>SAP offers a comprehensive tiered maintenance and support model available to customers on a global basis. This support offering includes SAP Enterprise Support services and the SAP Standard Support option. Customers can choose the option that best meets their requirements. SAP's support portfolio also contains two additional premium maintenance engagements: SAP Active Embedded and SAP MaxAttention. These are also globally available and require that a customer has a valid SAP Enterprise Support or SAP Standard Support agreement. The post implementation support services outlined below are part of SAP Enterprise Support. The vast majority of SAP customers has SAP Enterprise Support as their support program. Continuous Quality Checks: With SAP Enterprise Support, Continuous quality checks are performed in one or more manual or automatic remote service sessions. These checks are delivered in accordance with a customized service and support plan and proactively identify ongoing technical risks to SAP solutions and possible measures for optimization. They are preventative checks used during all phases of the application lifecycle to master critical situations such as going live, upgrading, migrating, handling top issues, and improving system performance, availability, stability, and data consistency. There are more than twenty (20) of these checks available to customers that are used at different points throughout the application lifecycle. SAP Early Watch Alert (EWA) provides the regular transmission and evaluation of performance and configuration data and serves as a basis for identifying potential irregularities in the customer systems at an early stage. This automated service makes it possible to identify standard problems before they turn into acute problems. It provides suitable countermeasures and recommendations for resolution. SAP EarlyWatch Alert for Solutions summarizes the results for a set of systems inside a solution. It gives an overview on solution-based KPIs and alerts and evaluates the performance of cross-component business processes. SAP Enterprise Support Academy: SAP Enterprise Support also provides knowledge transfer through the SAP Enterprise Support Academy. Available only to SAP Enterprise Support Customers, the SAP Enterprise Support Academy provides a completely new level of knowledge transfer focusing on a variety of topics including the operation and optimization of support organizations to customers through the following: Expert-Guided Implementations: Enable the customer to execute complex activities with the help of SAP experts in their systems through a unique combination of training, live configuration and expertise on-demand. • Guided Self-Services: Standardized into self-services that are executable on-demand, these system based guided step-by step procedures provide our expertise. They are available 24x7/365. • Webinars: Interactive live sessions (including recordings, covering generic operations concepts and deep dive topics. Also offered in different languages such as English, German, French and, Russian. • Meet The Expert Sessions: Live webinars conducted by SAP experts on SAP Enterprise Support services and SAP Solution Manager. • Quick IQ: Sessions: Short tutorials on how to change system settings, enabling customers to make these changes autonomously. • Best Practices: The encyclopedia to product-, database- and operating system-specific how-to guides, is available 24x7/365. Advanced support checks for Enhancement Packages and other SAP Software Updates: SAP Enterprise Support customers receive special remote checks delivered by SAP solution experts to analyze planned or existing modifications and identify possible conflicts between the customer's custom code and enhancement packages and other solutions updates provided by SAP. Additional checks help you determine, explore, and deploy new SAP features and functions that are most relevant to your business.</p>
	<p>Yes (100)</p> <p>Sisense's Customer Success Team works round the clock to assist customers.</p>
	<p>Yes (100)</p> <p>Tableau offers help desk support via telephone and email.</p>

5.5 Vendor Information

high priority

5.5.1 References Is the vendor able to provide customer references? Are these references from the same industry and company size as us?

 Power BI	Yes (100) Yes
	Yes (100)
	Yes (100)
	Yes (100)
	Yes (100)

