



# SAP Digital Boardroom

## Implementation Checklist

PUBLIC



# **TARGET GROUP**

Application Consultant, System Architect, Project Lead, Business User

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# 1. Digital Boardroom Concept, Design and Project Planning

## 1.1. Basic Concepts

Item	Checked	Comment	Additional Information
1.1.1. Make yourself familiar with the SAP Digital Boardroom concept and the multi-touch-screen ideology	<input type="checkbox"/>	<p>SAP Digital Boardroom helps you to align executive decisions on one source of truth across business areas. It provides a complete, real-time view of company situations and KPIs across departments to foster trust among leaders.</p> <p>Select an <b>Agenda</b> to orchestrate the executive meeting in a traditional way. Select a <b>Dashboard</b> to show a freeform presentation in a new exploratory style to meet your organizational structure.</p> <p>Multi-screen touch display technology can be used to present in a natural way, but single screen experience is available as well.</p>	<a href="#">SAP Digital Boardroom</a>
1.1.2. Acquire knowledge on SAP Analytics Cloud as the underlying analytics solution for the Digital Boardroom	<input type="checkbox"/>	<p><b>SAP Analytics Cloud as a Software-as-a-Service analytics capability</b> is the technological foundation and analytics platform for SAP Digital Boardroom. It is critical that your planned Digital Boardroom design corresponds to the functionality of SAP Digital Boardroom and SAP Analytics Cloud.</p> <p>For your Digital Boardroom project, you can leverage the following capabilities of SAP Analytics Cloud:</p> <ul style="list-style-type: none"><li>With <b>BI</b>, you can discover your data and create visual content (KPIs, visualizations, stories, drill-down)</li><li>You can add simulation, <b>planning/what-if/predictive</b>/collaboration aspects to your Boardroom</li></ul> <p>With <b>SAP Digital Boardroom</b>, bring this content together into an Agenda or Dashboard.</p>	<a href="#">SAP Analytics Cloud</a> <a href="#">Official Product Roadmap</a> <a href="#">Product Updates &amp; Plans</a>

		<p><b>SAP Analytics Cloud</b> connects via <b>replication</b> or <b>online access</b> to both <b>on-premise</b> and <b>other cloud data sources</b>. With the hybrid model of data integration, your on-premise data can remain "on premise" - and simultaneously, replication of data in the Cloud is supported.</p>	
1.1.3. Understand the pricing of SAP Analytics Cloud / Digital Boardroom	<input type="checkbox"/>	<p><b>SAP Digital Boardroom</b> is licensed as a subscription, based on the <b>number of installations</b>.</p> <p>As a prerequisite, the respective <b>SAP Analytics Cloud</b> licenses (<b>named/concurrent</b>) are required to be able to create and combine BI, Planning, and Predictive content, which you then orchestrate for your Digital Boardroom.</p>	For more information, contact your SAP Account Executive and see: <a href="#">General Pricing Information</a>
1.1.4. Explore the standard Service offering related to SAP Digital Boardroom	<input type="checkbox"/>	<p>To speed up and safeguard your Digital Boardroom implementation project, it is recommended that you leverage the <b>SAP service portfolio</b> with <b>standard services</b>, tailored for the individual project aspects:</p> <ul style="list-style-type: none"> <li>• Digital Boardroom Design</li> <li>• Financial Transformation</li> <li>• Strategic Functional Architecture</li> <li>• Content Orchestration</li> <li>• Technical Architecture, Infrastructure and Authorizations</li> <li>• Implementation incl. activation of Best Practice packages, Application configuration, Data Integration, etc.</li> </ul>	Contact your SAP Account Executive for more details on the service offering

## 1.2. Digital Boardroom Design

Item	Checked	Comment	Additional Information
1.2.1. Apply Design Thinking to validate the business scenario and your Boardroom design  (Understand -> Observe -> Define POV -> Ideate -> Prototype -> Test)	<input type="checkbox"/>	<p>A good <b>understanding of how your senior leadership meetings are conducted</b> is fundamental for a clean Digital Boardroom design. <b>Design Thinking</b> is the recommended methodology for a structured discussion with your C-level users. The approach helps understand:</p> <ul style="list-style-type: none"> <li>• The planned Digital Boardroom scenario</li> <li>• The standardized metrics involved</li> <li>• Data types available in your system and any external data needed (e.g. stock price, analyst estimates, external benchmarks, market share data, etc.)</li> <li>• Data availability and KPI harmonization needed so that every KPI shows consistently the same value when looked at from different perspectives</li> <li>• Visualizations needed</li> <li>• Paths to be supported for: <ul style="list-style-type: none"> <li>◦ Exploration</li> <li>◦ Drilldown</li> <li>◦ Simulation (e.g. to simulate the impact of a sales increase of n % or changing currency exchange rates on the five-year financial plan etc.)</li> <li>◦ Planning (e.g. to re-plan different cost or revenue elements on-the-fly)</li> <li>◦ Predictive scenarios</li> </ul> </li> </ul> <p>Work frequently, and from a very early phase, using <b>wireframes</b> as a form of visual mock-up (e.g. for defining tiles for screens). You can use anything between a professional prototyping tool and a piece of paper to iterate on the visuals. This will help you evolve or scrap ideas early and “cheaply” enough, before you start configuring your IT system.</p> <p><b>Iterate with your senior executives frequently</b> via regular workshops / presentations to optimize your design and to ensure their buy-in for the Digital Boardroom functionality.</p>	<p>More information on Design Thinking:</p> <ul style="list-style-type: none"> <li>• <a href="#">Design Thinking at SAP</a></li> <li>• <a href="#">SAP User Experience Community</a></li> </ul> <p>For a tailored Design Thinking Service for SAP Digital Boardroom, contact your SAP Account Executive</p>

1.2.2. Have your Digital Boardroom design aligned with the capabilities of the analytics solution	<input type="checkbox"/>	<p>Actively involve tool experts for SAP Analytics Cloud / Digital Boardroom in your design discussion. It is <b>critical that the Digital Boardroom design corresponds to the functional capabilities of the underlying analytics solution.</b></p> <p>Assess company-specific corporate design guidelines. If your company prescribes any specific design rules for handling charts – e.g. the width of bars, color coding, whitespaces between visual objects, any specific chart types, etc., check how these requirements can be handled by the tool.</p>	
1.2.3. Assess your existing reporting and how this can be digitized, leveraging best-practices of information design	<input type="checkbox"/>	<p>There are standard Design services available for you as described above (see Section 1.1.4.). You can also use standard information-design rules and methodologies as available in the market. Apply the following basic advice for a <b>good user experience</b>:</p> <ul style="list-style-type: none"> <li>• Use your Boardroom “real estate” smartly by <b>eliminating whitespaces, condensing information</b> and highlighting only information that is important</li> <li>• Arrange your “active tiles” in the layout by grouping related insights - so that <b>cause &amp; effect analyses</b> are possible easily</li> <li>• <b>Standardize visual content</b> (charts and their elements, tables, colors, data series, axes, phrases, abbreviations) for a repeatable experience – each aspect should have the same meaning across the different visual objects (e.g. red color in charts always means a “negative difference”). Your end-users want to be able to move their attention fast without losing context.</li> <li>• Put <b>proper labels</b> to charts, dimensions, measures, units, etc. so that your end-users always know what they are looking at</li> <li>• <b>Choose the right chart types</b> based on best practice for the respective case (example: Deviation Chart when comparing with target, Comparison chart when comparing entities with each other, Trend line charts for over-time display, etc.). Use chart scaling consistently</li> <li>• <b>Remove visual clutter</b> - the key message of each screen should become evident within 3 seconds. Remove 3D effects, shadows, unnecessary colors, fonts or frames. Avoid duplicate texts. Shorten long number representations. Use colors only when they have a meaning.</li> </ul>	<p>The HICHERT®SUCCESS formula for the International Business Communication Standards (IBCS) are a recommended starting point for you for a compelling visual design of your Digital Boardroom, particularly for financial data:</p> <p><a href="http://www.hichert.com">www.hichert.com</a>  <a href="#">IBCS Certified</a></p>

### 1.3. Project Preparation and Planning

Item	Checked	Comment	Additional Information
1.3.1. If possible, position the Digital Boardroom implementation effort as part of your company's digital transformation, reshaping the way to run your business	<input type="checkbox"/>	<p>SAP Digital Boardroom is a highly visible, prominent "<b>active board</b>" (rather than a static Dashboard). As such, it is typically not implemented stand-alone. An enterprise analytics program sponsored by senior leaders is a good starting point for <b>transforming the requirements of your company into a digital format</b>. Running and analyzing a business in real-time and eliminating latencies is only possible when the <b>organization</b> (processes, systems) and <b>data</b> (performance indicators, planning / simulations / financial close) have been aligned and harmonized for <b>managing and responding to situations in a digital way</b>.</p> <p>In return, you will be able to benefit from:</p> <ul style="list-style-type: none"> <li>• <b>Reduced reporting processes / manual tasks</b></li> <li>• <b>Shortened waiting times and review cycles of presentation materials</b>, and</li> <li>• <b>Powerful analytical exploration / simulation capabilities</b>.</li> </ul> <p>To help you achieve <b>steering excellence</b>, you might position SAP Digital Boardroom based on SAP Analytics Cloud as the top of the "KPI-cascade": with harmonized performance indicators linked in a bi-directional fashion between the Boardroom of the Senior Leadership, the dashboards used by middle management and operational reporting and process intelligence on the team level.</p>	<p><b>SAP Business Suite 4 SAP HANA</b>, the next-generation business suite designed to help you run simple in the digital economy, can help break down the barriers of the traditional boardroom. In <b>combination with SAP Digital Boardroom</b>, it gives business leaders the contextualized, real-time information they need to make decisions for today and drive change for the future</p>
1.3.2. Digital Boardroom enables fact-based management: be prepared to make your data ready for it	<input type="checkbox"/>	<p>To enable a Digital Boardroom, you need a <b>data foundation</b> combined with <b>visualization capabilities</b>. Based on the implementation experiences so far, you can estimate that:</p> <ul style="list-style-type: none"> <li>• Creating the <b>visual content</b> (configuring the "active tiles" and orchestrating their flow) will represent only approx. <b>20% of the overall project effort</b></li> <li>• The other <b>80%</b> will be focused on the <b>data foundation: integrating, modelling and harmonizing the underlying data</b> – becoming the single source of truth on which the board meeting will be based</li> </ul>	

<p>1.3.3. Prepare a realistic effort estimation to support detailed project planning</p>	<input type="checkbox"/>	<p>The <b>overall effort</b> to implement Digital Boardroom might <b>vary based on your scope, project team mix, architecture and project duration</b>. Streamlined business processes, the level of harmonization of master data across different system, availability of KPI or value driver definitions, etc. also have significant impact on the implementation. However, you can still use the typical project phases / milestones as the basis for your effort estimate:</p> <ul style="list-style-type: none"> <li>• Work out Digital Boardroom <b>content concept</b> and <b>design</b></li> <li>• Check <b>data availability</b> for identified KPIs &amp; identify <b>systems</b></li> <li>• Document as-is, interim, to-be <b>technical architecture</b></li> <li>• Identify <b>data size required for the data model</b> (in case a new, harmonized analytical data source needs to be created to consolidate your data)</li> <li>• Perform <b>system sizing for SAP Analytics Cloud</b></li> <li>• On-premise Infrastructure <b>Installation &amp; Set-up</b> (if needed)</li> <li>• <b>Data integration / Data connection</b></li> <li>• <b>Importing transactional /planning data</b> (depending on your scenario)</li> <li>• <b>Data modelling (data source model, e.g. HANA views)</b></li> <li>• <b>Data modeling in SAP Analytics Cloud</b></li> <li>• <b>Security modelling and authorizations (data source)</b></li> <li>• Create <b>prototype flow</b> on existing C4A environment</li> <li>• Configure <b>planning scenarios</b> (if needed)</li> <li>• Build analytical <b>Stories</b> in SAP Analytics Cloud</li> <li>• Perform <b>Security modelling and authorizations in SAP Analytics Cloud</b></li> <li>• Build <b>Dashboard/Agenda</b> views &amp; <b>Story mapping</b> in Digital Boardroom</li> </ul> <p>Other project aspects (project steering, iterations/reviews with end-users, testing activities, roll-out, go-live support) remain a standard approach.</p>	<p><a href="#">Connectivity Guidelines</a></p> <p><a href="#">Online Connection and Security Wiki</a></p>
<p>1.3.4. Determine critical skills required for your project</p>	<input type="checkbox"/>	<p>The following skills are recommended for a Digital Boardroom implementation project:</p> <ul style="list-style-type: none"> <li>• <b>System Administration</b> for IT landscape set-up - installation, configuration, monitoring / performance, security: <ul style="list-style-type: none"> <li>○ <b>System Administration for SAP Analytics Cloud</b> – user management and administration / system usage monitoring</li> <li>○ <b>Data Source Landscape Administrator</b> – depending on your data source of choice (HANA, S/4 HANA, BPC, BW experience etc.)</li> </ul> </li> </ul>	<p><a href="#">System Requirements and Technical Prerequisites Help Page</a></p> <p><a href="#">Screen Hardware Configuration</a></p>

		<ul style="list-style-type: none"> <li>○ <b>(Cloud) Data Integration</b> – SAP Cloud Platform Integration (SCP) to connect SAP Analytics Cloud with data sources (cloud or on-premise)</li> <li>○ <b>Digital Boardroom Set-up configuration</b> – for hardware, drivers, graphic cards</li> <li>● <b>Modelling</b> – data modeling functionalities in           <ul style="list-style-type: none"> <li>○ <b>SAP Analytics Cloud modelling</b></li> <li>○ <b>Data Source Models</b> (HANA, BW, S/4 HANA, BPC, etc.)</li> </ul> </li> <li>● <b>Visualization</b> – story-building with Analytics Cloud for BI and orchestration with Digital Boardroom</li> <li>● <b>Analytics Cloud for planning</b> - for planning part (if included) or can be easily cross-trained on the above (Analytics Cloud for BI)</li> <li>● <b>Business Transformation / Business Process Knowledge</b> – for the business definition of KPIs and flows</li> <li>● <b>User Experience</b> – UI design skills recommended for design / layout definition – to deliver a rich user-interface and smooth flow between screens (in line with design guidelines and best practices)</li> </ul> <p>You should still run your Digital Boardroom project as any other software implementation project, with regular projects skills (project management, etc.) and other typical roles (testers, etc.) for a smooth and successful implementation.</p>	
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## 2. Digital Boardroom Content

### 2.1. Content Concepts

Item	Checked	Comment	Additional Information
2.1.1. Set a reasonable scope of business content for your Boardroom Meeting	<input type="checkbox"/>	<p>Your Boardroom will have a specific <b>content scope, depending on how your company runs its business and the way the board meetings are conducted</b>. Ask yourself the key question: what are your key value drivers? While every Digital Boardroom is unique depending on your industry and business type, there are best-practice content examples for your consideration for the different areas.</p> <ul style="list-style-type: none"><li>• <b>Financial:</b><ul style="list-style-type: none"><li>○ <b>Revenue / Revenue Growth, Operating Income / EBITDA, Operating Margin, P&amp;L, Balance Sheet, Cash Flow, OPEX, Financial Debt</b>, or any significant <b>investments or expense components</b>, the <b>Long-term Financial Plan</b></li><li>○ <b>Return-on-Investment (ROI) / Return on Capital Employed (ROCE)</b> or a <b>Shareholder Value-type KPI</b> are a popular leading indicator</li><li>○ Financial / Operational / Market Risks as a <b>Risk Matrix</b>, any <b>material compliance issues</b> reported</li><li>○ <b>Stock Performance, Analyst Estimates</b>, external <b>Benchmarks</b> – e.g. from external data providers</li></ul></li><li>• <b>Customer / Sales:</b><ul style="list-style-type: none"><li>○ <b>Budget Adherence, Actual Revenue combined with Pipeline</b> for open/future periods, <b>Pipeline Conversion Rate</b></li><li>○ <b>Market Share, Customer Satisfaction, Target Group Sentiment</b></li><li>○ <b>Pipeline Coverage per Sales-enablement FTE</b></li><li>○ <b>Any large individual sales opportunities / deals pending</b></li></ul></li><li>• <b>People</b> (strategic workforce planning- or reorganization-related metrics):</li></ul>	<p>Note: Decide how real-time you would like to be for the different indicators. Example: with regards to the financial close, you need to determine <b>at what point in time you release the financial data</b> for use by the Digital Boardroom. Displaying financial consolidation-relevant data during an open period might bring cumbersome results.</p>

		<ul style="list-style-type: none"> <li>○ Headcount / FTEs, age structures, Length of Service, Role Composition, Management Span of Control</li> <li>○ Talent Management</li> <li>○ Employee Satisfaction / Employee Engagement</li> <li>○ Attrition, Retirement predictions, Recruitment Cycle Times</li> <li>● Depending on your industry and business, there probably will be also industry specific <b>Process</b> metrics (just a few examples):           <ul style="list-style-type: none"> <li>○ Retailers are typically <b>Margin</b>-focused and might want to visualize key indicators such as <b>Cost-to-Serve, Availability Fulfillment levels</b> across different channels, products and geographies, <b>Brand awareness</b> (Reputation, Net promoter score, Customer satisfaction, Top-n vs. Bottom-n selling products), <b>Customer profile</b> (Churn Rate, Revenue per Customer)</li> <li>○ Manufacturers might want to review <b>Plant Utilization / Cycle Times / Productivity / Service Levels / Predictive Maintenance</b></li> <li>○ Asset-heavy industries such as Utilities or Telco will spend time discussing <b>Asset Utilization / Effectiveness, Return on Assets, Maintenance Costs, Downtimes, etc.</b></li> </ul> </li> </ul> <p>Depending on your respective business model, your senior leaders would probably also like to <b>simulate the impact of key factors (Sales Revenue % change, GDP, currency effects, oil price, etc.) on your Long-term Financial Plan.</b></p> <p>For a smooth implementation project, you might want to <b>concentrate first on one main business unit or functional area for an end-to-end scenario</b>. You might keep the <b>other Business units at an aggregated level for the initial go-live</b> and then <b>gradually add details</b> as you progress.</p>	
2.1.2. Understand the content mapping to the Digital Boardroom ideology	<input type="checkbox"/>	<p>For SAP Digital Boardroom, organizing the content is key:</p> <ul style="list-style-type: none"> <li>● Only <b>important information pertinent to a leadership meeting should be visualized</b> via the “active board”</li> <li>● <b>KPIs need to be harmonized across different data sources</b> (e.g. Revenue must show the same figure coming both from CRM and Financials)</li> <li>● <b>Content from different business areas needs to be aligned</b> on a single semantic model. Metadata relationship (example: Customer ID) must be maintained for all Business Units/Functional Areas, so it is easy to navigate/drilldown between them and find right context</li> </ul>	

		<ul style="list-style-type: none"> <li>• One reporting environment to <b>monitor historical, actual and forecast</b> data needs to be enabled</li> <li>• <b>Drill-down to the line item</b> level from aggregated visualization must be enabled where needed</li> </ul>	
2.1.3.	Learn about the content objects available in SAP Digital Boardroom / SAP Analytics Cloud	<p>These are the <b>building blocks</b> you will be configuring in SAP Digital Boardroom / Analytics Cloud to visualize your data for a Digital Boardroom experience:</p> <p>Example: Views in your HANA system are consumed in SAP Analytics Cloud as a model, where KPI's, visualization and stories are built on top. As a next step, the stories can be orchestrated in a multi-screen flow, e.g. based on a <b>guided</b> (Agenda) or <b>free structure</b> (Dashboard) approach.</p> <p><b>Front-end content in Digital Boardroom / Cloud for Analytics:</b></p> <ul style="list-style-type: none"> <li>• <b>Interactive Agenda</b></li> <li>• <b>Orchestration of Stories into a 3-screen flow</b></li> <li>• <b>Stories</b></li> <li>• <b>Visualizations</b></li> <li>• <b>KPIs</b></li> <li>• <b>Cloud for Analytics Model</b></li> </ul> <p><b>Data source:</b></p> <ul style="list-style-type: none"> <li>• <b>HANA Views</b></li> </ul> <p>This illustration shows a 3-screen setup using an Agenda based approach.</p>	

2.1.4. Agenda and Dashboard approaches	<input type="checkbox"/>	<p>You can choose between two types of Digital Boardroom presentations:</p> <ul style="list-style-type: none"> <li>• <b>Agenda:</b> Your traditional boardroom meeting structure. Create agenda items, then add and combine pages from any story into your topics. Use an agenda for meetings with a timed schedule, where items are presented in a linear order (possibly by different people).</li> <li>• <b>Dashboard:</b> A modern, exploratory, corporate steering presentation. Create freeform topics to match your business organization, then add and combine pages from any story. Use a dashboard to allow the presenter to decide where to go next, without a predefined path to follow.</li> </ul>	<a href="#">Learn more about Agendas and Dashboards</a>
2.1.5. Review different types of content depending on the data source	<input type="checkbox"/>	<p>SAP Digital Boardroom / SAP Analytics Cloud supports your underlying data sources.</p> <p>Most prominent SAP data sources:</p> <ul style="list-style-type: none"> <li>• <b>HANA</b></li> <li>• <b>BW</b></li> <li>• <b>S/4 HANA</b></li> <li>• <b>BPC MS and BPC NW models</b> and data</li> <li>• <b>SuccessFactors</b></li> <li>• <b>BI Universes (UNIX)</b></li> <li>• <b>OData</b></li> <li>• <b>SQL</b></li> </ul> <p>To see the full list, please open the link on the right.</p> <p>Other data sources:</p> <ul style="list-style-type: none"> <li>• <b>Flat files (.csv)</b></li> <li>• Direct connection to <b>.xlsx files</b> and to Google sheets stored in <b>Google Drive</b></li> </ul>	<a href="#">Data Connections</a> <a href="#">Data Connection Learning Tutorial</a> <a href="#">Connectivity Guidelines</a> <a href="#">Data Connectivity Roadmap</a>
2.1.6. Include the SAP standard best-practice content in your implementation project	<input type="checkbox"/>	<p>SAP provides Best Practices and related Content Implementation Services (based on different data sources) to speed up your implementation.</p>	<a href="#">SAP Analytics Cloud content</a> <a href="#">SAP Analytics Cloud content - Youtube playlist</a> <a href="#">Benefits of Business Content</a>

### 3. Digital Boardroom Set-up

#### 3.1. Hardware Set-up

Item	Checked	Comment	Additional Information
3.1.1. Learn how multiple screens work with the web browser	<input type="checkbox"/>	<p>SAP Digital Boardroom is optimized for 1980 x 1080 pixel touchscreen and customers can choose between a <b>single or multiple</b> screens to display the Digital Boardroom.</p> <p>SAP Digital Boardroom is configured in a way that a <b>single Google Chrome browser with the Boardroom URL is stretched into as many screens as you want (max. 10)</b>. In presentation mode, each screen then displays the orchestrated stories.</p>	<a href="#">SAP Digital Boardroom – Screen Hardware Compatibility</a>
3.1.2. Learn how a single screen works with the web browser	<input type="checkbox"/>	<p>The responsive layout capabilities of SAP Digital Boardroom make it possible to use a single screen. The software automatically adjusts the visible story to show previews of stories in the same topic. You can select or swipe from one to the next, or jump from one to another, using the bread crumbs, or the built-in navigation features.</p> <p>An app is available on the Microsoft store for the Microsoft Surface Hub. You can choose to use this app or the Edge browser on Surface Hub. This combination enables business users to benefit from collaboration features, including e-mail, Skype, and drawing.</p> <p>SAP also recently announced a collaboration to integrate SAP Digital Boardroom with Cisco's Webex Board.</p>	<a href="#">Microsoft Surface Hub - Download the App</a>  <a href="#">Collaboration Announcement</a> <a href="#">SAPPHIRE 2018 - Cisco Webex Board</a>

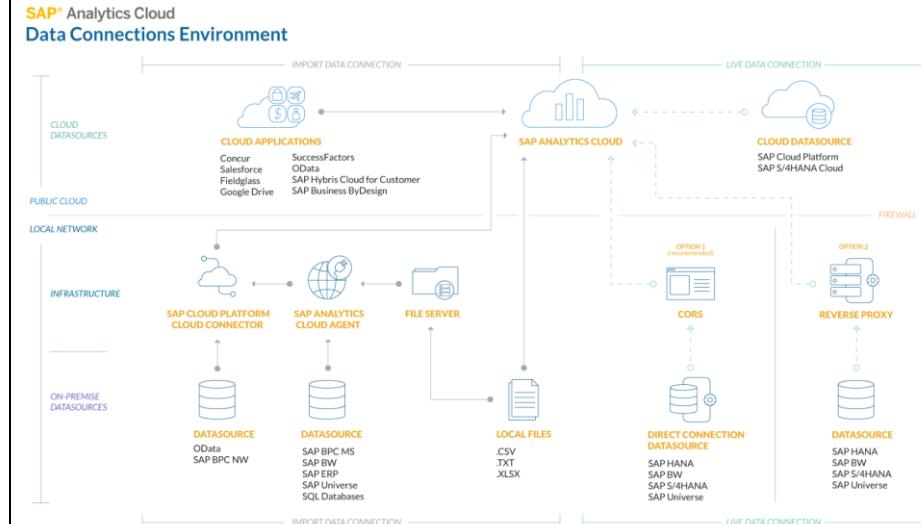
3.1.3. Check your hardware configuration	<input type="checkbox"/>	<p>Once all required hardware components (including the standard mounting of screen(s)) and software with the respective license are available, all display cables of the screens need to be connected to the PC. Make sure the PC that runs the driver of the touchscreen has a reasonable graphics card and uses a fast network connection.</p> <p>Follow the instructions document for a successful SAP Digital Boardroom Hardware setup.</p>	<a href="#">SAP Digital Boardroom – Screen Hardware Compatibility</a>
3.1.4. Decide on the Test set-up	<input type="checkbox"/>	<p>It is recommended to <b>establish a Test/Development Boardroom setup</b> along with your Production Boardroom. You might use smaller screens if needed (all the set-up steps are similar). Your Test environment can also simulate Production with one screen only. SAP Digital Boardroom can be set up to run on a single-screen, by toggling between the screens either by using the keyboard arrow keys, or by using the active screen selector.</p>	

## 3.2. Application Set-up

Item	Checked	Comment	Additional Information
3.2.1. Review the high-level architecture with the data sources, harmonized data model and visualization layers	<input type="checkbox"/>	<p>SAP Digital Boardroom (based on SAP Analytics Cloud) connects via <b>replication</b> or <b>online access</b> to both:</p> <ul style="list-style-type: none"> <li>• <b>On-premise data sources / applications</b> and</li> <li>• <b>Other Cloud data sources / applications</b></li> </ul> <p>The data is consolidated within the analytics platform using SAP Analytics Cloud core services, such as <b>data preparation and modeling</b>. You enable <b>data security</b> by using administration and security services. Finally, you can build the required <b>visualizations</b> and stories of the Digital Boardroom using the SAP Analytics Cloud for BI and SAP Analytics Cloud for planning and predictive respectively.</p>	<a href="#">System Requirements and Technical Prerequisites</a>

		<p>The diagram illustrates the SAP Analytics Cloud architecture. At the bottom is the SAP Data Center. Above it is the SAP Cloud Platform, which includes the SAP PaaS layer (Platform as a Service) and the SAP SaaS layer (Software as a Service). The SAP SaaS layer contains several applications: SAP Digital Boardroom, SAP Analytics Hub, Mobile Experience, and SAP App Center. SAP Digital Boardroom includes BI (Discovery, Charts and tables, Geospatial), Planning (Events and workflows, Allocation), Predictive (Smart Assist), and Embedding (Analytics into applications). SAP Analytics Hub includes Data connectivity, Wrangling, Modeling, Administration, Auditing, Visualizations, Collaboration, Mobile, and APIs. Arrows indicate connectivity between the SAP Data Center and both Cloud data sources/applications and On-premise data sources/applications.</p> <p>Most customers already have a <b>consolidated data mart layer (SAP HANA, SAP BW, etc.) on top of their transaction systems</b>. Thus, it is recommended to leverage this investment by pushing data modelling activities to these systems (that are frequently still on-premise) and using SAP Analytics Cloud for visualization.</p>	
3.2.2. Get familiar with the current consumption model and mobile aspects	<input type="checkbox"/>	<p>Digital Boardroom viewing is available on either Google Chrome or Microsoft Edge. The visual content can be rendered on <b>multiple screens</b> or on a <b>single screen</b>.</p> <p>A <b>mobile app for SAP Analytics Cloud</b> is already available such that the user can consume a Digital Boardroom also on a mobile device (currently restricted to iOS based devices).</p>	<a href="#">Detailed Browser Support for SAP Analytics Cloud</a> <a href="#">SAP Analytics Cloud Mobile - App Store</a>
3.2.3. Leverage SAP Analytics Cloud as the underlying analytics platform for SAP Digital Boardroom	<input type="checkbox"/>	<p><b>SAP Analytics Cloud is the underlying platform for SAP Digital Boardroom.</b> SAP Analytics Cloud is based on a Cloud subscription model (<b>SaaS</b>). SAP Analytics Cloud in either a <b>Private or Public tenant</b> will offer you all the capabilities like <b>Planning, BI, Boardroom, Analytics Hub</b>, etc. based on your respective license.</p> <p>For your Digital Boardroom project, SAP Analytics Cloud provides you with the following functionality:</p> <ul style="list-style-type: none"> <li>• <b>Security and administration</b> - for SSO, authorization and system monitoring</li> <li>• <b>System connection</b> - integrating data source systems</li> <li>• <b>Modelling</b> – via inbuilt modelling capabilities or direct consumption of data models from the respective source systems</li> </ul>	<a href="#">SAP Analytics Cloud</a> <a href="#">Documentation for SAP Analytics Cloud</a> <a href="#">SAP Analytics Cloud - Learning Tutorials</a>

		<ul style="list-style-type: none"> <li>• <b>Stories Configuration</b> - BI capabilities to build rich visualizations and planning capabilities for forecasting/what-if simulations</li> <li>• <b>Boardroom orchestration</b> – choose Agenda/Dashboard option to create the presentation consumption scenario</li> <li>• <b>Sharing and collaboration</b> - sharing the stories and collaborating between users</li> </ul>	
3.2.4. Factor in the security concept of SAP Analytics Cloud	<input type="checkbox"/>	<p>SAP Analytics Cloud has its own <b>security concept</b> based on the SAP Cloud Platform, offering the following capabilities:</p> <ul style="list-style-type: none"> <li>• <b>User management</b></li> <li>• <b>SSO &amp; Authentication</b></li> <li>• <b>Role management</b></li> <li>• <b>Data access control</b></li> <li>• <b>File permission</b></li> <li>• <b>Audit logs</b></li> <li>• <b>Content deployment</b></li> <li>• <b>System Monitoring</b></li> </ul> <p><b>Note:</b> Data access control is mainly used for the data replicated into Analytics Cloud to provide data level security as required by the use case. For online data scenario (e.g. HANA live view) data level security of the source system is taken into consideration.</p>	<a href="#">User Management</a> <a href="#">SAP Analytics Cloud Administration introduction blog</a> <a href="#">Roles and Security Permissions</a> <a href="#">Online Connection and Security Wiki</a>
3.2.5. Implement the data connectivity option	<input type="checkbox"/>	<p>SAP Analytics Cloud including SAP Digital Boardroom is deployed on the SAP Cloud Platform (SCP). You can:</p> <ul style="list-style-type: none"> <li>• <b>Replicate</b> the data from both on-premise and Cloud data sources to SAP Analytics Cloud with <b>Data Acquisition</b> connectivity using SAP Cloud Connector and SAC Cloud Agent</li> <li>• Directly consume data using the remote <b>online connectivity without replication</b> for both on-premise and Cloud data sources using direct Connectivity CORS (Cross-Origin Resource Sharing) method or via Reverse proxy (ex: Apache). For customers with on-premise data sources, this functionality is key, as transactional data is directly consumed in the web browser (without leaving your customer network) and only metadata is copied from SAP Analytics Cloud to the browser during runtime</li> </ul>	<a href="#">All Connections Help Document</a> <a href="#">Latest Connectivity Options</a> <a href="#">Connectivity Guidelines</a> <a href="#">Prerequisites/version dependencies for different data sources</a>

	<p>SAP Digital Boardroom support these data sources for both Online and Data Acquisition connections:</p>  <p>The diagram illustrates the SAP Analytics Cloud Data Connections Environment. It shows the flow of data from various sources through the SAP Analytics Cloud to the SAP Cloud Platform. Key components include:</p> <ul style="list-style-type: none"> <li><b>CLOUD DATA SOURCES</b> (PUBLIC CLOUD): Concur, Salesforce, Fieldglass, Google Drive.</li> <li><b>CLOUD APPLICATIONS</b>: SuccessFactors, OData, SAP Hybris Cloud for Customer, SAP Business ByDesign.</li> <li><b>SAP ANALYTICS CLOUD</b>: The central hub.</li> <li><b>CLOUD DATA SOURCE</b>: SAP Cloud Platform, SAP S/4HANA Cloud.</li> <li><b>ON-PREMISE DATA SOURCES</b> (LOCAL NETWORK): SAP Cloud Platform Cloud Connector, SAP Analytics Cloud Agent, FILE SERVER, LOCAL FILES (CSV, TXT, XLSX), and various DATA SOURCES (OData, SAP BPC NW, SAP BPC MS, SAP BW, SAP ERP, SAP Universe, SQL Databases).</li> <li><b>CONNECTORS</b>: Import Data Connection (solid lines) and Live Data Connection (dashed lines).</li> <li><b>SECURITY</b>: FIREWALL, CORS, and REVERSE PROXY options.</li> </ul> <p>For other data sources, it is recommended to bring your analytical data to the supported SAP data sources via related standard ETL tools like SAP Smart Data Access, SAP Cloud Connector, etc.</p>	
3.2.6. Build a data model for visualizations	<p><input type="checkbox"/></p> <p>Before you start creating visualizations, stories or planning scenarios, you need to create models as a representation of the business data of your organization, combining dimensions like account, entity, etc. Depending on your respective system landscape and type of Data Connectivity you can create models in SAP Analytics Cloud using different options:</p> <ul style="list-style-type: none"> <li>• <b>Start with a Blank Model:</b> Creating an empty Model structure in the tool directly and then importing data later.</li> <li>• <b>Import a file from your computer:</b> Creating a Model along with data using a flat file (e.g. Excel or CSV files) where data columns in source file are used to create dimensions in the model.</li> <li>• <b>Use a data source:</b> Creating a Model either from a Live Data Connection (e.g. SAP HANA, SAP BW, SAP S/4, SAP Universe) or importing data from the underlying data sources (e.g. SAP BW, SQL, SAP Universe)</li> </ul>	<a href="#">Data Modelling in SAP Analytics Cloud</a>

		<ul style="list-style-type: none"> <li>• <b>Get data from an app:</b> Creating a Model either from a Live Data Connection to Cloud Apps (e.g. SAP Cloud Platform, SAP S/4 Cloud) or importing data from the underlying Cloud Applications (e.g. Google Drive, Salesforce, OData Services)</li> </ul> <p>Once a model is created using Data Acquisition mode, it is possible to just import the data directly for all data sources type and even schedule the data import on recurring basis.</p> <p>For Live Data Connection Models, only Metadata is stored in SAP Analytics Cloud but still it is possible to create few calculations and change descriptions in the Model.</p> <p><b>Note:</b> It is also possible to directly create Visualizations without manually creating the model as the tool will create a model automatically based on the uploaded flat file. Especially for BI scenarios and to Business Users this will be quite helpful.</p>	
3.2.7. Build your visualizations	<input type="checkbox"/>	<p>Use the <b>BI Capability</b> of SAP Analytics Cloud to:</p> <ul style="list-style-type: none"> <li>• <b>Create rich and visually appealing Stories</b>, using different chart types and widgets and</li> <li>• <b>Enable the drilldown possibility</b> to explore your data further</li> </ul> <p>Stories can be based on existing models but it is also possible to upload a file without building a model and to build stories directly there (e.g. for information requested on a short notice for a Board meeting). This model will be created in private mode first. It is then possible to later manipulate data and build a model for use by others.</p>	<a href="#">Introduction to Stories in SAP Analytics Cloud</a> <a href="#">What's New in SAP Analytics Cloud</a> <a href="#">Designing Beautiful Stories</a> <a href="#">Performance Best Practices</a>
3.2.8. Enable planning and predictive scenarios if needed	<input type="checkbox"/>	<p>Use SAP Analytics Cloud for <b>planning</b> to create financial planning scenarios, forecasting and related analytical insights to enhance your Digital Boardroom experience if needed. Capabilities like Value-Driver-Tree Simulation and Forecasting enable you to make faster decisions while analyzing the data.</p> <p>Use SAP Analytics Cloud for <b>smart scenarios</b> using the Smart Discovery and Smart Insights capabilities to uncover key influencers, outliers, grouping and other insights if needed. On top, SAP Analytics Cloud allows you to write <b>R scripts</b> to create your own visualizations if the application's chart palette – once in a while - is not enough.</p>	<a href="#">What's New for Financial Planning</a> <a href="#">Exploring your Data with Smart Discovery</a> <a href="#">Smart Insights</a> <a href="#">How Predictive Forecasting Can Benefit Your Business</a>

3.2.9. Orchestrate your visual content into a Digital Boardroom	<input type="checkbox"/>	<p>To finalize the application set-up, choose either the Agenda or the Dashboard presentation form:</p> <p>Use the <b>Agenda</b> presentation form of Digital Boardroom to bring your stories in a traditional, structured form using an interactive agenda. This approach focuses on a step-by-step presentation. The Agenda represents an entry point into the executive-level user interface. Apply the design guidelines to structure your visual content into a smooth flow and navigation between screens. Test whether your users are able to explore, answer their ad-hoc questions, and then return to the Agenda at any time.</p> <p>Use the <b>Dashboard</b> functionality to create freeform topics to match your business organization, then add and combine pages from any story. Use a dashboard to allow the presenter to decide where to go next, without a predefined path to follow. This approach provides the user maximal flexibility to jump between topics and detail levels. Dashboards make use of navigation widgets that can be defined during the story creation step, to define both the flow of screens and exploration for the charts.</p> <p>However, both approaches provide the possibility to define filter, to configure the context menu and action bar via the presentation settings.</p> <p>Once the stories have been arranged and the presentation flow is set up, you can directly go to <b>presentation mode</b>.</p> <p>To display the Boardroom scenario on the chosen screens, open the URL in Google Chrome on a PC connected to the screens, and press F11 for full screen mode.</p>	<a href="#">Documentation for SAP Digital Boardroom</a> <a href="#">Creating Digital Boardroom Agendas</a> <a href="#">Creating Digital Boardroom Dashboards</a> <a href="#">Presentation Settings and Theming</a> <a href="#">Presenting Your Digital Boardroom</a>
3.2.10. Get ready for operating the Digital Boardroom	<input type="checkbox"/>	<p>As SAP Analytics Cloud / SAP Digital Boardroom is a SaaS model solution, most of the operations like <b>upgrading</b> (SAP Cloud Platform and SAP Analytics Cloud), patching and even maintenance is managed by SAP. This is done automatically in a fixed time slot (mostly weekends and non-business hours) for all tenants.</p> <p>After each update, customers can find the latest features information within the Application itself, in the What's New blogs or on the official SAP Analytics Cloud website.</p>	<a href="#">What's New in SAP Analytics Cloud</a> <a href="#">SAP Analytics Cloud Website</a> <a href="#">Support Portal</a>

		<p>Using the <b>system usage option</b>, a System administrator of SAP Analytics Cloud can <b>monitor</b> the system easily. In case of issues, you can contact SAP via standard support system (LOD-ANA-BI component)</p> <p>For standard issues with the functionality or to submit requirements / provide feedback, there is another process in the application Help section called <b>Send Feedback</b>.</p>	
3.2.11. Learn about the application lifecycle management	<input type="checkbox"/>	<p>If you are managing multiple Tenants like one Production Tenant and one Test Tenant, it is possible to move the content from one tenant to another using manual <b>Export/Import</b> activity under Deployment Section. In the future this process can be automated.</p> <p>Typically, entire development life cycle activities (DEV-TEST-PROD) can happen within one Tenant using clearer Folder structure with appropriate security settings. A proper governance model need to be defined to manage the content effectively.</p>	<a href="#">Free Trial Version</a> <a href="#">SAP Analytics Cloud Suggested Lifecycle Management Concepts and Workflows</a> <a href="#">Deployment Options Help Document</a>

4. Link collection			
Item	Checked	Comment	Additional Information
4.1.1. More helpful links	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• Looking for a quick answer, use our FAQ</li> <li>• The idea place can be used to submit feature requests for SAP Digital Boardroom and Analytics Cloud</li> <li>• Get an objective, real-world understanding while listening to our reference customers sharing their experiences</li> <li>• Learn how SAP's CFO and Executive Board Member uses SAP Digital Boardroom to run SAP</li> <li>• See SAP's Community Page for further information</li> </ul>	<a href="#">FAQ</a> <a href="#">Submit Ideas</a> <a href="#">Customer Stories</a> <a href="#">How the SAP CFO runs SAP Digital Boardroom</a> <a href="#">SAP Community page</a>

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