

# NEW FEATURES DESCRIPTIONS

SAP BUSINESS COMMUNICATIONS  
MANAGEMENT SOFTWARE (SAP BCM)

SAP BCM VERSION 7

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## 1. SAP BCM 7 introduction

This document lists SAP Business Communications Management software version 7 (SAP BCM 7) new, changed and replaced functionality. This document is targeted for existing SAP BCM customers who are seeking more detailed information on what's new in SAP BCM version 7.

**Powerful**

**Reliable**

**Versatile**



The new SAP BCM 7 brings powerful and easy-to-use tools to contact centers, designed for efficient operation both On-Premise and On-Demand.

SAP BCM 7 provides a software-based contact center suite with feature rich multi-channel tools for inbound and outbound communication, IVR capabilities and call recording functionality. Serving both front line agents and back office experts, the software is ideal for distributed contact center operations and extends flexibly to include mobile workers. SAP BCM empowers customer-facing business processes by linking communication capabilities with operational business systems and content.

The new version of SAP BCM 7 brings contact center agents, supervisors and managers powerful and easy to use tools for improved performance and productivity. Version 7 includes efficient role-based features that allow for centralized definition of functions and authorizations for various roles, and easy assignment of roles to personnel. First line customer service agents are equipped with a new, integrated softphone for multichannel communications, including one-click tabs for quick navigation between inbound calls, email, chat and outbound calls.

Management features of SAP BCM 7 include the ability to flexibly and cost-efficiently utilize back office experts in customer contacts. Connecting customers with specific requests directly to the right experts has a marked effect in customer satisfaction, typically increasing the percentage of issues resolved at first contact. A wider resource pool also improves the ability to respond to contact peaks. Combined monitoring and reporting of inbound and outbound operations along with new adjustable report templates bring managers a personalized view of operations at any given time and over specified periods of time.

SAP BCM 7 contact center suite can be operated as a stand-alone solution or integrated with SAP CRM solution. The deep integration allows organizations to build streamlined end-to-end processes for sales, marketing and customer service. The software also integrates with other SAP applications and services and numerous third party software solutions.

## 2. User Interfaces new features

### 2.1. Infrastructure Administrator

SAP BCM Infrastructure Administrator utilizes a new, Java-based user interface to install, upgrade and technically monitor the SAP BCM 7 software.

Functional area	Description
Software installation and deployment	Installing, upgrading and patching SAP BCM 7 software has been improved. Installation tool has now capability to install and deploy software to physical servers without need to jump between the servers. Installing software is made as simple as changing any configuration variables.
Component configuration	<p>SAP BCM 7 software packages define a set of configurations. Configurations are managed in IA tool. New parameter linking features allow hard and soft links between variables thus re-typing of same information twice is no longer necessary.</p> <p>Renewed package model registers Virtual Units and their software modules automatically into the database. System modules discover the necessary variables from the database without need to define redundant configuration in System Configurator. The system structure is operational right after the system has been installed.</p>
System modeling	New addition to system modeling is customer tagging. Logical customer structures may be tagged with own identifier. This feature is especially important in multitenant environments (e.g. Cloud /OnDemand deployments).
High Availability Configuration	<p>SAP BCM 7 contains previously introduced High Availability (HA) model where redundant server nodes may be implemented for backup purposes. In addition, critical SAP BCM 7 server modules can now be multiplied and set to run in load balancing mode which removes single point of failures from the system.</p> <p>SAP BCM system now has a new lossless planned switchover mechanism within HA cluster. Inactivating a server node shall move resources to other load-balancing node without loss of ongoing customer calls. Planned inactivation of the system is triggered from IA user interface and transition state is shown in the IA monitoring view.</p>
System health and performance monitoring	<p>IA tool has monitoring view for basic system health monitoring. Server modules events health state in IA user interface including new "near failure" state. This state is used when server module independently notices alarming errors or events which may lead to probable malfunction.</p> <p>Drilling down to the real problem is possible from IA screen by querying more information (e.g. resent log data) from the server. System alerts are sent as SNMP traps using Alarm Server module. Modules advertise also performance metrics, which may be monitored from SAP Solution Manager with CA Wily Introscope system.</p>

Functional area	Description
Easy installation /access	IA user interface uses Java web start technology. This means that IA can be launched from any web browser. This also ensures that users always use up-to-date version of IA user interface.

Infrastructure Administrator (IA) replaces BCM 6.0 Infrastructure Administrator and Virtual Unit Administrator user interfaces.

## 2.2. System Configurator

SAP BCM System Configurator is a new, Java based tool to create and manage SAP BCM 7 users and functionality. It is used to manage SAP BCM customer environments that are installed by Infrastructure Administrator user interface.

System Configurator (SC) provides modern tools to manage SAP BCM users and functionality in easier and efficient manner: For example, comprehensive search tools, create new objects by copy and paste mechanism, sort and reorganize data tables according to personal needs and define other personal settings like quick links and favorite searches.

System Configurator user interface consists of following key functional areas:

Functional area	Description
System Services	Activate, Configure and de-activate SAP BCM 7 in-built functionality like Voicemail, External Agent, CMC mobile client, Call Conference, Call Recording, Email channels /servers, SMS, CallBack queue, IP Desk Phone, Voice Prompt and Batch Job Services settings.
System Management	Configure and manage system languages, password policy, default settings for contact center channels /queues and access to renewed number viewer functionality. In addition, SC user can review installed SAP BCM server components settings. (The installation of SAP BCM server components is done using Infrastructure Administrator user interface).
Call Switching	Configure and manage VoIP Gateways, call destination routes, generic call switching rules, locations, call barring groups and global switching settings such as secure RTP (SRTP) settings, signaling settings, call bandwidth control settings and NAT.
Reporting Management	Configure and manage SAP BCM Reporting /Data Warehouse related settings such as reporting groups, data protection rules, data destinations, reporting specifications and statistics settings.
Scripting Management	Create and manage inbound queues and outbound campaigns related scripts, such as classification forms and interactive questionnaires. A single script can be used with multiple inbound queues (calls, email or chat) and outbound campaigns. Script results (filled in by CDT softphone users) are stored in SAP BCM Reporting Data Warehouse for reporting purposes.

Functional area	Description
Directory Management	<p>Create and manage SAP BCM directory data related settings, views and access rights (directory templates, directory fields and directory groups including access rights).</p> <p>Directory templates view allows to create multiple different views with different search options for SAP BCM /CDT softphone users: e.g. basic view for office users (shows basic directory data for office users), advanced view (shows extended directory data that contact center agents need to access) and switchboard view containing all directory data for switchboard operator use.</p>
Presence Management	<p>Create and manage SAP BCM presence profiles (e.g. meeting, business trip and vacation) related functionality /settings and related access rights.</p> <p>As a new functionality SC user may define different priorities for created presence profiles. Presence profile with higher priority with overrides lower priority profile in case they should occur simultaneously. For example, "Leave of Absence" profile with continuous end time overrides "Meeting" profiles that has lower priority. This kind of overlapping profile scenarios may occur in case SAP BCM user has created future presence profiles to BCM system e.g. via Microsoft Outlook Calendar integration functionality.</p>
Queue Management	<p>Create and manage SAP BCM voice, callback, email or chat queues, related routing rules and other queue related settings and access rights.</p> <p>With SAP BCM 7, a voice, callback or email queue can be configured to be in auto-allocation mode or hunt group mode (but not both modes in the same time).</p> <p>Queue name and numbers can be synchronized to SAP BCM directory make queue numbers /details better visible for the users.</p> <p>Queue groups, calendar events, schedules, prompts, skills, email and chat reply templates including access rights are managed in Queue Management menu option.</p>
IVR Management	<p>Create and manage SAP BCM customer Interactive Voice Response (IVR) applications like voice menus, caller recognition services and other automated voice self-service applications and related reporting and access rights.</p> <p>SAP BCM 7 introduces new VoiceXML based IVR application generator that allows SAP BCM customers to create various types of DTMF based IVR applications including SOAP based database dips to various databases according to business need. New SAP BCM IVR application includes also automated version handling which helps e.g. to easily and fast roll-back to previous version if needed.</p>
Outbound Management	<p>Manage Outbound Campaign settings and related access and reporting rights: Dialers, Campaign settings, customer data templates, campaign filters, call result classifiers, call transfer lists, blocked numbers list and other outbound campaign settings.</p>

Functional area	Description
User and Role Management	<p>Create and manage SAP BCM users, user roles, user groups and user settings templates related settings, and access rights. SAP BCM 7 introduces new role, group and template based administration model that helps managing SAP BCM users and related functionality in efficient manner.</p> <p>In addition this menu option includes Update Wizard that helps e.g. to manage multiple users CDT settings at once. Also new User Setting Templates functionality allows to manage CDT, SAP Convergence and CMC mobile client settings in efficient template based administration model. User Settings Templates also allows administrative user to allow or deny e.g. CDT users changes to their own CDT settings.</p>
System Tools	<p>System tools allows SC user to import and export users, directory entries, queues, outbound campaign calling lists, outbound campaign blocked numbers lists, presence profiles, calendar events and skills data.</p> <p>SC user can define import and export related settings and import /export system jobs via System Tools menu option. In addition Microsoft Active Directory data import and data mapping tools are part of System Tools.</p>
Easy installation /access	<p>SC user interface uses Java web start technology. This means that SC can be launched from any web browser.</p> <p>The Java web start technology also ensures that users always use up-to-date version of SC user interface.</p>

System Configurator replaces BCM 6.0 System Administrator, User Administrator, CPM Administrator, major part of Reporting Administrator, IVR Administrator and Active Directory Synchronization user interfaces.

### 2.3. Communication Desktop (CDT)

CDT user interface is targeted to users whose main role is to handle customer contacts like calls, callbacks, emails and chat. Typical CDT user examples are contact center and help desk agents, switchboard operators and secretaries handling e.g. one or multiple managers' phone calls.

Functional area	Description
Automated configuration changes	<p>CDT notifies user automatically if administrator has changed CDT settings that affects CDT UI layout. For example, if System Configurator user assigns new queue for the CDT user, CDT notifies the user that CDT settings have been changed and new settings can be taken into effect with CDT reload action. This improves contact center performance since user CDT changes can be automatically taken into use almost immediately.</p>

Functional area	Description
Contact History	CDT provides access to contact history including all SAP BCM channels: calls, callbacks, emails and chat. CDT user can see own handled contacts history (past 5 days as default) and can perform searches to contact history according to given rights to find e.g. previous contacts related to the customer.
Email handling	<p>CDT provides tools to handle incoming emails from SAP BCM email queues. The email queues can be either in auto-allocation mode (push mode) or in hunt group mode (pull /pick-up mode).</p> <p>CDT user can answer or deny incoming email, send email response for the customer, save email to personal pending emails list to handle email later or transfer email to another email queue or colleague having rights to same email queue.</p>
Email target answer time indicator	System Configurator user can define target answer time for email contacts (queue specific value). Emails that have exceeded this time target will be indicated with appropriate icons and background color for the CDT users.
Reply templates for answering email and chat contacts	<p>Agents can use renewed email and chat reply templates while compiling response to customer email or chat interaction. Agent can compile e.g. email response from one or multiple reply templates or copy just part of appropriate reply template.</p> <p>Reply templates are created and maintained in System Configurator user interface (Queue Management). A single reply template can be used in one or many email and chat queues. Reply templates can be also be placed in different folders helping agents to quickly found appropriate folder /template to compile response for customer email or chat.</p>
Unified scripting functionality	<p>CDT provides unified scripting functionality for all type of inbound queues (calls, callbacks, emails and chat) and for outbound campaign calls. Script can be either static form (e.g. classification form) or interactive script (e.g. questionnaire).</p> <p>Scripts are managed via System Configurator user interface. Single script can be assigned to one or many queues and/or outbound campaigns.</p> <p>In inbound queues, the opening of the script can be configured to take place once contact is offered or answered, or when contact is hang up. Another alternative is that agent will open the script manually.</p>
Outbound Campaign calls handling	CDT provides tools to log in into outbound campaigns, and to handle outbound campaign related calls in preview, progressive or predictive dialing mode, dependent on dialer configuration. Outbound Campaign settings are managed via System Configurator user interface.

Functional area	Description
Inbound-Outbound call blending	System Configurator user can define threshold level values for inbound queues (e.g. 5 calls in sales queue). If this value is exceeded, CDT outbound agents, who are also logged in to particular inbound queue, will be automatically paused from outbound campaign (once they have handled a active outbound call), and inbound calls will be allocated for the agent. Once inbound queue level is again below the threshold level, agents' returns back to outbound campaign by clicking end-pause button.
Callback contacts	CDT provides tools to handle callback requests that customers have created while queuing in certain customer service queue. Callback channel /queue related functionality and settings are managed via System Configurator user interface.
Chat improvements	CDT Chat view usability is improved to increase agent chat contact handling productivity. New reply templates, which are configured in SC UI side, provide agents easier and more effective way to compile answers to customers.
Supervisor tools	CDT Supervisor tab provides online queue status data related to supervised agent (same real time queue view layout as on CDT Queue tab). Supervisor can pick up supervised agent pending emails or emails in cases where target answering time (SLA) is exceeded and supervisor can redistribute these emails to other agents. In addition, supervisor can now control supervised agent serving status (ready – not ready – pause).
Dashboard statistics settings /rights	CDT Dashboard statistics view content can be managed via System Configurator access /reporting rights settings. So SAP BCM 7 administrators can better control what statistics are shown for the agent.
New service status names	Agent service status names have been changed to be in line with SAP CRM solution terminology: <ul style="list-style-type: none"> <li>- “Serving” status is now “Ready”</li> <li>- “Paperwork” status is now “Not Ready”</li> <li>- “Afterwork” status is now “Wrap-Up”</li> </ul>
Presence indicators	<p>CDT presence icons and view are renewed. The presence statuses of SAP BCM users are more visible and detailed.</p> <p>The presence indicator is a combination of SAP BCM user phone status (free, busy or logged out) and user's ability and willingness to communicate (presence profile).</p> <p>For example, when an SAP BCM user is not logged on to the system, the logged off presence icon is shown. The free /busy /away indicators are shown only in case user is logged on, depending on which presence profile the user has activated.</p> <p>Please note that with SAP BCM 7 CDT users cannot anymore create personal presence profiles. Alternative way for personalized profiles is to create profile in SC user interface (Presence Management) and assign profile use right to particular user(s).</p>

Functional area	Description
Queue presence indicators	<p>SAP BCM queue basic data (name and access numbers /addresses) can be synchronized to SAP BCM directory. CDT users can see these queues presence statuses: free indicator is shown in case there are agents logged in to particular queue, and busy /closed indicator if there are no agents logged in to particular queue.</p> <p>Queue presence indicator tooltip shows how many agents there is serving in particular queue and how many contacts there currently is in the particular queue.</p>
New easy way to change presence profile start and end times	<p>If CDT user activate presence profile via drop-down list, CDT user can now easily change selected presence profile start and end times and also add comment to it: user can define CDT presence profile window to open automatically once user has selected some profile from profiles drop-down list.</p>
Editable directory search result list view	<p>System Configurator user can define per user or user group what kind of directory fields are shown in CDT directory search list view. This enables to show different search list views to different user types enabling optimized directory usage e.g. for office users, contact center agents and switchboard operators.</p>
Editable directory data views	<p>System Configurator user can also define per user or user group what kind of directory templates (directory data tabs and fields) are shown in CDT directory data views.</p> <p>System Configurator user can define per directory template which directory data fields are used in directory search function. This enables optimized directory data usage for different user profiles such as office users, contact center agents and switchboard operators.</p>
Allow or deny CDT settings changes	<p>System Configurator user can allow or deny CDT users to change CDT settings (all settings or certain settings). This is useful in case company wants to be sure that CDT has right settings activated to execute e.g. contact center related work in efficient manner.</p>

Renewed CDT functionality replaces SAP BCM 6.0 Task Manager and Outbound Agent user interfaces. Task Manager email handling tools and classification forms are now part of CDT functionality. Also SAP BCM 6.0 Outbound Agent user interface functionality is now part of CDT functionality.

SAP BCM 6.0 Task Manager customer activity /task management functionality (e.g. CRM and HelpDesk ticketing type of usage scenarios) are available via SAP CRM solution that is out-of-the-box integrated with SAP BCM.

## 2.4. SAP Convergence softphone

SAP Convergence is a new softphone for organizations who want to utilize office workers /experts to support or participate contact center operations. SAP Convergence provides efficient personal calls management tools for office workers /experts who use phone and Microsoft Outlook and Office in their daily work.

With SAP Convergence organizations can easily and cost effectively build multi-tier contact center operations where first line contact center agent use multi-channel Communication Desktop softphone and second /third line support users use SAP Convergence softphone.

### SAP Convergence key features

Functional area	Description
Basic call handling capabilities	<ul style="list-style-type: none"> <li>▪ Answer or reject incoming calls</li> <li>▪ Login /logout contact center voice queues</li> <li>▪ Dial outgoing calls</li> <li>▪ Hang up calls</li> <li>▪ Put calls on hold and retrieve calls</li> <li>▪ Make consultation calls</li> <li>▪ Toggle between calls (for example between an original call and a consultation call)</li> <li>▪ Transfer calls (direct and consultative)</li> <li>▪ Call waiting notification (another call waiting)</li> </ul>
Conference functionality	<ul style="list-style-type: none"> <li>▪ Connect existing calls to a conference</li> <li>▪ Add participant by calling out or accepting incoming call and connecting it to the conference</li> <li>▪ See who are participating</li> <li>▪ Remove participant</li> <li>▪ End conference</li> </ul>
Communications handling	<ul style="list-style-type: none"> <li>▪ Missed calls indicator</li> <li>▪ Call history (answered, dialed and missed calls)</li> <li>▪ Send SMS or email</li> <li>▪ Call by name to co-workers (corporate directory)</li> <li>▪ See co-workers' presence status</li> <li>▪ Manage own presence status</li> <li>▪ Add frequently used numbers to contact list for quick calling</li> <li>▪ Record calls using SAP BCM client or server side call recording</li> <li>▪ Define phone settings, for example: define audio devices (even on-the-fly), define call forward rules, define alerting terminals (multiple ringing using Multi-Terminal Desktop mode)</li> </ul>
Microsoft Outlook and Office integration	<ul style="list-style-type: none"> <li>▪ Call from MS Outlook (e.g. to e-mail sender)</li> <li>▪ Drag and drop MS Outlook email to Convergence to make call</li> <li>▪ Filter inbox and sent MS Outlook emails based on caller data</li> </ul>

SAP Convergence softphone replaces Microsoft Outlook Office embedded softphone (CT Outlook) that was part of SAP BCM 6.0 functionality. However, CT Outlook client support is continued for Microsoft Outlook Office Calendar integration (MS Outlook 2007 and 2010).

## 2.5. IP Desk Phones

SAP BCM 7 supports SIP-based IP desk phones connected via External Terminal Controller (ETC) server module.

Functional area	Description
Access to voice queues and manage personal queue service status via IP desk phone	<p>Users with IP desk phones can login to (and logout) SAP BCM voice queues (configured to auto-allocation mode). With auto-allocation mode, SAP BCM automatically routes call from queue to logged in agent according to defined routing rules.</p> <p>IP desk phone users can also change their ready-not ready-pause status via service status dialing codes: lift the handset of the phone, dial appropriate service status code or then place the handset back into the base.</p>
Manage personal presence status	<p>IP desk phone users can change their active presence profile via in-built Presence IVR service: dial presence IVR number and select appropriate absence reason code from menu list. In addition or alternatively, IP desk phone user can activate default presence and absence profile via presence status dialing codes: lift the handset of the phone, dial appropriate presence status code or then place the handset back into the base.</p> <p>IP desk phone users can also use Microsoft Outlook Calendar integration to activate SAP BCM presence profiles once managing Outlook Calendar appointments.</p>

## 2.6. External Agent

SAP BCM 7 External Agent functionality enables contact center agents to login /logout voice queue(s) from any phone terminal such as mobile phone or home phone.

Functional area	Description
Presence profile management	Users logged in as external agents have now a possibility to change their presence and absence status by calling Presence IVR service and selecting appropriate presence profile option with DTMF keys.

## 2.7. Online Monitoring

Online Monitoring user interface is designed for contact center managers and team leaders to monitor contact center operations status and performance.

Functional area	Description
Personalized system status bar views	Online Monitoring user can create different system status bar views and use these predefined views via Summary view dropdown menu. Online Monitoring user can e.g. create different system status bar views for calls, emails and chat related operations with appropriate indicator values and select from drop-down list which view s/he wants to see at particular moment. This helps Online Monitoring users to better configure personal views they need in order to effectively monitor contact center operations.
Agent summary view	Agent summary view (on Summary view) data elements are renewed to provide better insight into contact center agent staffing and performance statistics.
Agent view search	Agent view search options are increased to enable search of monitored agents on various bases, e.g. search agents with ready, not ready, pause or certain presence profile status from certain location.
Outbound Campaign statistics	SAP BCM Outbound Campaigns monitoring is now part of Online Monitoring user interface. Online Monitoring user can monitor real time outbound campaigns and related agent statuses and performance according to given rights. Outbound Campaigns monitoring view provides two different monitoring dimensions: Volumes and Durations related views /statistics.
Callback channels statistics	Callback queues related statistics are added to Online Monitoring tool: Summary view, Agent view and Contacts view.
Time presentation format	Time is presented in new format to help “easy reading” of different time related statistics. <ul style="list-style-type: none"> <li>▪ If duration is less than 60 seconds, time is shown in “ss” format</li> <li>▪ if duration is more than 60 seconds, time is shown in “m.ss” or “mm.ss” format</li> <li>▪ if duration is more than 1 hour, time is shown in “h.mm.ss” or “hh.mm.ss” format</li> <li>▪ if duration is more than 99 hours, time is shown in “&gt;d days” where d is the current amount of days in a particular field</li> </ul>
Improved sort data and tooltip functionality	Summary, Agent, Contact and Outbound views allows to sort table according to any selected column.  Tooltips are added to provide additional information related the monitored object, for example, agents call count related tooltip shows queue and extension calls separately. Notes column is removed from contact list view.

Functional area	Description
New service status columns	<p>Service status columns are renewed to enable better sort /find agents with different login and phone statuses:</p> <ul style="list-style-type: none"> <li>▪ Login status “Logged out” <ul style="list-style-type: none"> <li>○ Shows what profile is active</li> <li>○ Phone status field is always “-” since from service perspective logged out agent is not available</li> </ul> </li> <li>▪ Login status “Paused” <ul style="list-style-type: none"> <li>○ Shows what (absence type of ) profile is active.</li> <li>○ Phone status is always “-” since from service perspective paused agent is not available</li> </ul> </li> <li>▪ Login status “Ready” <ul style="list-style-type: none"> <li>○ Shows what profile is active.</li> <li>○ Different phone statuses can be <ul style="list-style-type: none"> <li>▪ Free</li> <li>▪ Busy (call in), mouse-over tells queue name or “personal extension call”</li> <li>▪ Busy (call out)</li> <li>▪ Busy (email), mouse-over tells queue name</li> <li>▪ Busy (chat), mouse-over tells queue name</li> <li>▪ Busy (callback), mouse-over tells queue name</li> <li>▪ OB (waiting), mouse-over tells campaign name</li> <li>▪ OB (preview), mouse-over tells campaign name</li> <li>▪ OB (call out), mouse-over tells campaign name</li> <li>▪ OB (wrap-up), mouse-over tells campaign name</li> <li>▪ Wrap-up, mouse-over tells queue name</li> </ul> </li> </ul> </li> <li>▪ Login status “Not ready” <ul style="list-style-type: none"> <li>○ Shows what profile is active.</li> <li>○ Different phone statuses can be <ul style="list-style-type: none"> <li>▪ Free</li> <li>▪ Busy (call in)</li> <li>▪ Busy (call out)</li> </ul> </li> </ul> </li> </ul>
Improved sort data and tooltip functionality	<p>Summary, Agent, Contact and Outbound views allows to sort table according to any selected column.</p> <p>Tooltips are added to provide additional information related the monitored object, for example, agents call count related tooltip shows queue and extension calls separately. Notes column is removed from contact list view.</p>
Listen recorded calls	<p>Listening recorded calls occurs now in CDT application. Online Monitoring user can search for recorded calls e.g. per queue, agent or certain time range. When user clicks “Listen” button in Contacts view, CDT user interface will pop-up, and call can be listened via CDT. The changed listening flow is done because of new access control model, where BCM server will check if particular user has rights to listen call recording.</p>
Audit log for listening recorded calls	<p>System Configurator user can activate audit log for listening recorded calls. If this functionality is activated, Online Monitoring user is forced to comment why he /she listened certain call. Listening recorded calls audit log also automatically have the data who listened certain call recording and when.</p>

Functional area	Description
New Monitoring Alarm view	SAP BCM 6.0 Queue Watcher and Supervisor queue statistics view are combined as new Monitoring Alarm View. This alarm view allows to configure common or queue specific alarm thresholds. If a specific threshold value is exceeded, alarm view automatically pop-up and notifies Online Monitoring user who can then take appropriate actions to solve the situation.
Reporting Administration view	Authorized Online Monitoring users may access to Reporting Administrator view where user can e.g. see SAP BCM Reporting system info, create /manage reporting time zones and review data transformation related results and manage the corresponding settings.
Improved authentication / security	Online Monitoring users' data visibility permission can be given according to queue and agent statistics on summary or statistics detail level. For example, System Configurator user can allow team supervisor see agents queue related contact handling statistics but not details from direct extension calls.

SAP BCM 7 Online Monitoring Outbound View replaces the SAP BCM 6.0 Outbound Monitoring application /view.

## 2.8. SAP BCM Reporting

SAP BCM Reporting user interface is aimed for contact center managers and team leaders to report and analyze contact center operations past performance.

The service status changes from serving - paperwork to ready - not ready, as described in Communication Desktop (CDT) new functionality chapter, have an impact on SAP BCM 7 Reporting contents, especially Agent related reports.

In addition SAP BCM 7 Reporting supports now better reporting simultaneous contacts handling, e.g. situations where agent receives an call or chat contact while he /she is working with an email. The reporting architecture has also improved. Especially in multi-tenancy environments there can be multiple tenants (customers) sharing same SQL server instance.

Functional area	Description
New Outbound Campaigns statistics dimension and report templates	<p>SAP BCM 7 consolidates the in- and outbound reporting to a single SAP BCM data warehouse. With the consolidated reporting architecture, the outbound campaign reports have become part of the standard reporting templates.</p> <p>The outbound reports contain four major categories:</p> <ul style="list-style-type: none"> <li>• Call metrics statistics, providing outbound call volume metrics and information about campaign progress from both agent and campaign perspective</li> <li>• Campaign results statistics, providing information how is the campaign performing in terms of the desired outcome (e.g. successful sales calls)</li> <li>• Dialer results statistics, providing information of calling success and of call list quality</li> <li>• Script results statistics, providing statistical information of the campaign script answers</li> </ul>

<p>Queue as new reporting information layer; new reports queue serving.</p>	<p>In addition to Contact and Agent data, with SAP BCM 7 the analytics can now be done also from the Queue perspective.</p> <p>The Queue dimension provides contact center service metrics especially from the queue perspective:</p> <ul style="list-style-type: none"> <li>• How many agents on average were serving in a specific queue on a specific timeframe?</li> <li>• Was there a time when no agents were serving in a specific queue, and if yes, for how long?</li> <li>• What was the maximum number of agents serving in a specific queue?</li> </ul> <p>The queue serving reports are available on daily, hourly and quarter-hourly formats.</p> <p>Queue serving reports contain the following data:</p> <ul style="list-style-type: none"> <li>• Number of serving agents (average, min, max)</li> <li>• Number of free serving agents (min, max)</li> <li>• Time with no serving agents</li> <li>• Time with no free agents</li> <li>• Cumulative time with serving agents             <ul style="list-style-type: none"> <li>○ Handling</li> <li>○ Wrap-up</li> <li>○ Waiting</li> <li>○ Not Ready</li> <li>○ Pause</li> </ul> </li> </ul>
<p>Queue as new reporting information layer; new reports queue skill.</p>	<p>For organizations that are using skills based routing, SAP BCM 7 offers new reports for analyzing the demand of specific skills and skill combinations.</p> <p>The queue skills match volume report provides skills related contact center metrics for service managers and team leaders:</p> <ul style="list-style-type: none"> <li>• What kind of skills and skill combinations are most frequently required?</li> <li>• How well can we match the skills demand with the current agent skills we have?</li> <li>• Do I need to adjust the agent assignments, routing parameters or do I need to arrange targeted training for my agents?</li> </ul> <p>The queue skill reports are available on daily, hourly and quarter-hourly formats.</p> <p>Queue skill reports contain data about skills match volume, sorted out on per individual (selected) queues and available skill combinations.</p> <p>The skills match percentage is the result value calculated in CEM when performing agent selection in skills based routing mode.</p>

Functional area	Description
Agent - Contact Handling Volume report with improved multi-channel statistics	<p>With SAP BCM 7 the new Agent - Contact Handling Volume report template replaces the Contact Handling report template of previous SAP BCM versions. The renewed Contact Handling Volume report template is now better answering the needs of multi-channel contact center.</p> <p>The Agent - Contact Handling Volume report provides team and agent performance analytics over different contact channels:</p> <ul style="list-style-type: none"> <li>• Are there any differences in contact handling rates between calls, emails and chats?</li> <li>• How many calls, emails and chats do my agents handle during a specific time frame?</li> <li>• Which of my agents are the top performers in email handling?</li> </ul> <p>Agent - Contact Handling Volume reports contain the following data:</p> <ul style="list-style-type: none"> <li>• Call contacts <ul style="list-style-type: none"> <li>○ Number of allocated calls</li> <li>○ Number of handled calls + handled %</li> <li>○ Number of rejected calls</li> <li>○ Number of calls that were not answered (time limit)</li> <li>○ Average response time</li> <li>○ Number of outbound calls</li> <li>○ Number of consultation calls</li> </ul> </li> <li>• Email contacts <ul style="list-style-type: none"> <li>○ Number of allocated emails</li> <li>○ Number of handled emails + handled %</li> <li>○ Average response time</li> </ul> </li> <li>• Chat contacts <ul style="list-style-type: none"> <li>○ Number of allocated chats</li> <li>○ Number of handled chats + handled %</li> <li>○ Average response time</li> </ul> </li> <li>• Callback contacts <ul style="list-style-type: none"> <li>○ Number of allocated callbacks</li> <li>○ Number of handled callbacks + handled %</li> <li>○ Average response time</li> </ul> </li> <li>• Number of sent SMS messages</li> </ul> <p>The Agent - Contact Handling Volume report data is sorted by Group - Agent - Time. The report is also expandable / collapsible in this order.</p> <p>The Agent - Contact Handling Time reports are available on annual, monthly, weekly and daily formats.</p>

Functional area	Description
Agent - Contact Handling Time report template changes with improved multi-channel statistics	<p>Like the previous report, also the new Agent - Contact Handling Time report offers enhanced visibility for multi-channel contact centers. This report replaces the Contacts per agent report of previous SAP BCM versions.</p> <p>The Agent - Contact Handling Time report delivers agent productivity and performance metrics:</p> <ul style="list-style-type: none"> <li>• How long do my agents spend on average in contacts handling and wrap-up?</li> <li>• What is the contacts handling performance of my agents and teams?</li> <li>• How big are the performance differences between my teams and individual agents?</li> </ul> <p>Agent - Contact Handling Time reports contain the following data:</p> <ul style="list-style-type: none"> <li>• Number of handed contacts</li> <li>• Contact handling time (average, max, total)</li> <li>• Wrap-up time (average, max, total)</li> </ul> <p>The Agent - Contact Handling Time is sorted by Group - Agent - Time - Queue. The report is also expandable / collapsible in this order.</p> <p>The Agent - Contact Handling Time reports are available on annual, monthly, weekly and daily formats.</p>
Agent - Contact Handling Time Per Queue report with improved multi-channel statistics	<p>Also the new Agent - Contact Handling Time Per Queue report is improved from the multi-channel contact centers perspective. This report replaces the Contacts per queue report of previous SAP BCM versions.</p> <p>The Agent - Contact Handling Time Per Queue report delivers agent and team contact handling performance metrics from queue perspective:</p> <ul style="list-style-type: none"> <li>• What is the average contact handling time and wrap-up time of contacts in different queues?</li> <li>• How different teams and agents are performing in different queues?</li> <li>• Are there any improvements or trends in contact handling time in a specific queue?</li> </ul> <p>Agent - Contact Handling Time Per Queue reports contain the following data:</p> <ul style="list-style-type: none"> <li>• Number of handed contacts</li> <li>• Contact handling time (average, max, total)</li> <li>• Wrap-up time (average, max, total)</li> </ul> <p>The Agent - Contact Handling Time Per Queue is sorted by Queue - Time - Group - Agent. The report is also expandable / collapsible in this order.</p> <p>The Agent - Contact Handling Time Per Queue reports are available on annual, monthly, weekly and daily formats.</p>

Functional area	Description
<p>Agent - Work Done report with new multiple simultaneous contacts reporting logic and improved multi-channel statistics</p>	<p>The Agent - Work Done report template has faced substantial changes in SAP BCM 7 compared to previous SAP BCM versions. With SAP BCM 7 the Agent - Work Done report metrics is now more logical and straightforward, especially with multi-channel and with multiple simultaneous contacts. Also as the handling of agent service status from serving - paperwork to ready - not ready required new metrics in measuring agents' activity during specific time frame.</p> <p>Despite the changes, the Agent - Work Done report still contains the working hour metrics, providing managers' easy-to-digest information of what agents have been doing during their working hours.</p> <p>Agent - Work Done report contain the following data:</p> <ul style="list-style-type: none"> <li>• Working Hours: <ul style="list-style-type: none"> <li>○ Service time (total), consisting of <ul style="list-style-type: none"> <li>▪ Ready time <ul style="list-style-type: none"> <li>• Free time (this is Ready time without any active contacts)</li> </ul> </li> <li>▪ Not-Ready time</li> <li>▪ Pause time</li> </ul> </li> <li>○ First logon (timestamp)</li> <li>○ Last logoff (timestamp)</li> </ul> </li> <li>• Number of handled contacts: <ul style="list-style-type: none"> <li>○ Calls (in)</li> <li>○ Calls (out)</li> <li>○ Email (in)</li> <li>○ Chats (in)</li> <li>○ Callbacks</li> </ul> </li> <li>• Contact handling time (cumulative): <ul style="list-style-type: none"> <li>○ Talking time (in)</li> <li>○ Talking time (out)</li> <li>○ Consultation time</li> <li>○ Emails (in) time</li> <li>○ Chat (in) time</li> <li>○ Callback time</li> <li>○ Wrap-up time</li> </ul> </li> </ul> <p>The working hours section covers the actual working time during agent's shift. In SAP BCM 7 it is possible to handle multiple simultaneous contacts at the same time. Thus, the cumulative contact handling time can be larger than the working hours over the same period.</p> <p>The Agent - Work Done report is sorted by Group - Agent - Time - Profile. The report is also expandable / collapsible in this order.</p> <p>Additionally the Agent - Work Done report can be filtered to cover only queue contacts, only direct contacts or it can be viewed covering both queue and direct contacts.</p> <p>The Agent - Work Done reports are available on monthly, weekly, daily, and quarter hourly formats.</p>

Functional area	Description
Call recording file name stored with contact information	SAP BCM 7 reporting data contains call recording file name information linked to call data (date, time). This will help system administrators to easier search a specific call recording file.
Multi-tenancy model for reporting infrastructure	SAP BCM 7 reporting infrastructure enables installation of many SAP BCM Reporting systems onto same SQL server instance. This is especially beneficial in multi-tenancy /On-Demand environments.

SAP BCM 7 Reporting Outbound Campaigns reports replaces the SAP BCM 6.0 Outbound Reporting application.

### 3. Server side new features

#### 3.1. Access Control and Role Based Administration model

SAP BCM 7 introduces new highly granular access control and Role, Group and Template Based Administration model, which makes SAP BCM user and related functionality administration flexible and effective.

Functional area	Description
Highly granular access control model	SAP BCM 7 introduces new access control model where each created object (e.g. user, role, group, queue, script, presence profile, etc) access rights can be configured separately. For example, queue administrator can define who can view, edit or delete existing queue (or create new queues) and who can e.g. see basic or detail level monitor statistics and listen recorded calls from this queue.
Role, group and template based administration	<p>New role, group and template based administration model enables efficient user rights management. User Roles may be configured with any set of user access rights while all these rights are automatically inherited by the role or group members. Changing rights of a role automatically changes the rights of all its members and removing a member from a role will remove the role's rights from the removed member. In addition, similar access rights can be given for user groups too. Users inherit their rights from roles they have and groups they belong to.</p> <p>User Settings Templates enables SC user to efficiently manage SAP BCM users Communication Desktop, SAP Convergence and CMC mobile client settings /functionality. In addition Directory templates and groups provides an efficient way to define and manage SAP BCM users visibility to various directory data (internal and external directories).</p>
Default Administrator user roles	<p>SAP BCM 7 includes default administrator roles; System Administrator, User Administrator, Queue Administrator, Outbound Administrator, IVR Administrator and Reporting Administrator. SAP BCM 7 administrative users may be assigned to one or many of these default roles according to business need.</p> <p>SAP BCM 7 customers may use these default administrator roles as such, or modify them according to their business needs or delete them and create new administrator roles.</p>
Default Contact Center user roles	<p>SAP BCM 7 includes default contact center user roles: CC Supervisor, CC Agent, Expert User, Office User and Advanced Monitoring User. SAP BCM 7 contact center users may be assigned to one or many of these contact center user roles according to business need.</p> <p>SAP BCM 7 customers may use these default contact center user roles as such, or modify them according to their business needs or delete them and create new contact center user roles.</p>

Functional area	Description
Default User Settings Templates	<p>SAP BCM 7 includes default User Settings Templates that can be used to configure SAP BCM contact center users CDT, SAP Convergence and CMC mobile client settings. Default User Settings Templates are CC Supervisor, CC Agent, Expert User and Office User templates.</p> <p>SAP BCM 7 customers may use these default User Settings Templates as such, or modify or delete them and create new templates.</p>
Default Directory Templates	<p>SAP BCM 7 includes default Directory Templates that can be used to define different kind of directory views and directory access rights for SAP BCM contact center users. Default Directory Templates are Basic View, Advanced View and Switchboard View.</p> <p>SAP BCM 7 customers may use these default Directory Templates as such, or modify or delete them and create new templates.</p>
Default Presence Profiles	<p>BCM 7 includes default Presence Profiles that SAP BCM contact center users may use indicating their ability to communicate. Default Presence Profiles are: Default (Available), Do Not Disturb, Meeting, Business Trip, Leave of Absence and Vacation.</p> <p>SAP BCM 7 customers may use these default Presence Profiles as such, or modify or delete them and create new presence profiles.</p>

### 3.2. Email keyword recognition

SAP BCM 7 introduces improved mechanism for searching predefined keywords in email subject or body and make predefined routing action in case keyword(s) is found.

Functional area	Description
Define email keywords and action if keywords are found in incoming queue email	<p>A System Configurator (SC) user may define keywords that are searched from incoming queue email subject, body sender or sent address fields while SC user is managing email type of queue.</p> <p>If any of defined keywords are found, SC user may define appropriate action for particular email: forward it to another queue, set skill requirements for the email or set email priority or combination of these actions.</p>
Complex email keyword recognition scenarios	<p>Complex email keyword search queries and appropriate actions can be implemented via Contact Event Manager (CEM) customizer. Basic email keyword recognition application (described above) can be used as a starting point for the customized solution.</p>

### 3.3. Callback channel

SAP BCM 7 introduces new callback channel that allows callers in queue to leave an callback request to customer service.

Functional area	Description
Callback request from voice queue	A System Configurator user can activate callback service for voice queue. If callback service is activated for the queue, callers in particular queue can create a callback request by dialing #-key while queuing (or some other defined DTMF selection). If #-key is dialed, call will be routed to callback IVR service that will automatically create callback request to caller telephone number. Caller can also change the telephone number if this is enabled in callback IVR application.
Routing callback requests to agents	Callback requests are routed to agents via specified callback queue. Callback queue is configured as any normal voice queue.
Handling callback requests	Agents use CDT softphone to handle callback requests. Once agent answers callback request, agent can see customer information on CDT Scripting tab (callback classification form) and call will be established automatically to customer telephone number. Agent uses callback classification form to report if callback was successful (and will be closed) or callback call needs to be rescheduled since customer number was busy or did not answer.
Monitoring and Reporting callbacks	SAP BCM Online Monitoring and Reporting provides callback related statistics. Managers with given rights can monitor and report e.g. callback request amounts in queues and related handling statistics.

### 3.4. Call Recording services

SAP BCM 7 provides two different type of call recording services: Client-side and Server-side call recording.

Functional area	Description
Server-side call recording for quality monitoring and training purposes	<p>SAP BCM 7 Server-side call recording is designed for quality monitoring and training purposes. Server-side recorded calls are included in BCM logs and monitoring statistics and recorded calls listening rights are part of new SAP BCM access control model.</p> <p>Server-side recorded calls listening rights are managed via System Configurator user interface (i.e. who may listen calls recorded via particular queue). Recorded calls can be searched via Online Monitoring or CDT contact history user interface. Recorded calls are listened via CDT contact history view player according to given rights.</p>

Functional area	Description
Client-side call recording for personal use	SAP BCM 7 client-side call recording is designed to SAP BCM user's personal needs only. Client-side recorded calls are not included in SAP BCM logs and monitoring statistics. Client-side call recording listening rights cannot be controlled via new BCM access control model (Windows access control methods shall be used instead, if needed).
New queue call recording option	A System Configurator user can activate or deactivate server-side call recording for specified inbound call queue(s). If queue call recording is activated, all calls answered via particular queue will be recorded (despite of agent call recording status).
Renewed agent specific call recording options	<p>A System Configurator user can activate or deactivate server-side call recording for specified agents:</p> <ul style="list-style-type: none"> <li>▪ Agent controlled call recording: agent can control if call recording is on or off</li> <li>▪ Agent controlled call recording – default on: all agent calls are recorded by default but agent can control which calls will not be recorded</li> <li>▪ All agent answered calls are recorded: this option records all calls that agent has answered or called out (agent cannot control recording status). This call recording mode can be visible or hidden for the agent.</li> <li>▪ All agent calls are recorded: this option records all calls that are routed to agent extension number – including forwarded calls. Also all agent out dialed calls are recorded. This call recording mode can be visible or hidden for the agent.</li> </ul>
Renewed outbound campaign specific call recording option	A System Configurator user can activate or deactivate server-side call recording for specified outbound campaign(s). If outbound campaign call recording is activated, all calls dialed out (and answered) will be recorded (despite of agent call recording status).
Renewed script activated call recording option	A System Configurator user can activate or deactivate server-side call recording for specified Script(s). With script creation the System Configurator user can define if e.g. certain question or answer option will activate call recording. If agent passes this option in the script, call recording will be turned on for particular call.
Listening recorded calls	Recorded calls listening rights can be set via System Configurator UI. For example, supervisor /manager may be given rights to listen calls recorded by certain queues, campaigns or users. Supervisor /manager can search for recorded calls via Online Monitoring /Contact Details view. Once supervisor /manager wants to listen certain call, CDT History tab opens up. CDT checks if user has rights to listen particular call and then user can listen call recording via CDT History view.

### 3.5. Caller Name Lookup service for SAP BCM Phone Terminals

SAP BCM 7 introduces new centralized server side mechanism to find out caller name and present caller name on various SAP BCM Phone Terminals accordingly; CDT, SAP Convergence and IP desk phone.

Functional area	Description
Internal calls caller name	With SAP BCM internal calls, caller name is looked up from SAP BCM configuration database. Found name is added to call signaling /messaging data and shown accordingly in CDT, SAP Convergence or IP desk phone user interface for the SAP BCM telephony user.
External calls caller name	With external calls, caller name is looked up from SAP BCM directory database. If only one name is found from directory database, caller name added to call signaling /messaging data and shown accordingly in CDT, SAP Convergence or IP desk phone user interface for the SAP BCM telephony user.
Caller name updates during call	Caller name lookup service can update caller name on SAP BCM phone terminal if e.g. User B transfers User A call to User C using consultative transfer and User B leaves the call; in this scenario User A phone terminal shows that call is connected to User C and vice versa.

### 3.6. Contact Routing improvements

SAP BCM provides single routing engine for across all channels: CEM, Contact Event Manager.

Functional area	Description
Gradual skill requirement reduction	SAP BCM 7 introduces new method for Skill Based Routing (SBR) where incoming customer contact waits for defined amount of time for highest skilled agents. For example wait for skill level 5 agents for 10 seconds, then decrease skill requirement to level 3 and wait 10 seconds for agents having skill level 3 or above and finally decrease skill requirement to minimum level. Now customer contact will be routed to next available agent who has particular skill configured.

### 3.7. SIP Bridge enhancements

SAP BCM 7 introduces improved SIP Bridge functionality that allows e.g. to join multiple SAP BCM systems together on SIP level and improved interoperability scenarios with other SIP systems like Unified Communication, Speech Recognition and Text-to-Speech systems. SIP Bridge is now in two installation packages: SIP PSTN and SIP Phone.

Functional area	Description
Interoperability towards other SIP systems	SAP BCM SIP Bridge protocol enhancements have been added to better integrate /interoperate with other SIP systems and SIP trunks. For example transport protocol selection and enhanced SDP parsing have been added to support SIP level integration with Microsoft OCS /Lync systems.

Functional area	Description
Federation Bridge as part of SIP Bridge functionality	SAP BCM 7 SIP Bridge includes previous BCM 6.0 Federation Bridge functionality. SAP BCM 7 customers can integrate with other BCM 7 systems using standard BCM SIP Bridge making integration setup and maintenance more easy and effective.

### 3.8. Load Balancing between SAP BCM Server software components

SAP BCM 7 enables to multiply all core server software processes (e.g. CEM and CD) and run them in load balancing mode. This increases SAP BCM load handling capacity and improves SAP BCM system redundancy.

Functional area	Description
Load-balancing clustering	The core SAP BCM system modules – for example CEM, CD, Agent Server, Connection Server, MRS, ETC and OII – can be clustered 1:N mode. So there can be e.g. three CEM and CD processes running simultaneously sharing load between each others. This new load-balancing model improves SAP BCM system redundancy, load tolerance and scalability.
High Availability (HA) clustering	New 1:N HA clustering removes single point of failures from the SAP BCM system. In addition SAP BCM system has a now new lossless planned switchover mechanism within HA cluster. Inactivating a server node (e.g. CEM or CD) shall move resources to other load-balancing nodes without loss of phone calls.

### 3.9. Database division and distribution

SAP BCM 7 supports to use multiple separate Microsoft SQL databases to store and access BCM configuration, directory, outbound, reporting data. This will remove possible single MS SQL Server performance bottlenecks e.g. with large OnDemand Data Center deployments.

Functional area	Description
New database division and scaling options	<p>SAP BCM 7 Databases are divided based on their use: Configuration data, Operative data, Directory data, Outbound data, Monitoring data and Reporting data. This new database division replaces previous SAP BCM versions CEM and CPM database division.</p> <p>SAP BCM 7 Databases can be distributed to separate database server hardware. The SAP BCM data in the databases have now been reorganized using data usage profile as the basis to provide better tuning of each database server. These two new functionalities increases SAP BCM Database performance and capacity.</p>

### 3.10. Logging and troubleshooting

SAP BCM logging has been improved in order to support efficient maintenance and troubleshooting.

Functional area	Description
Audit logs	<p>SAP BCM 7 now allows printing a separate log for audit purposes. Auditing of the system may be done e.g. due security, financial or legal reasons. Audit logs contain information about security and data privacy related events and modifications to configuration and essentially records who did what and when on those events.</p> <p>Audit logs are physically separated from the normal trace logs so that in high security aware environments, they can even be written to a secure location (e.g. write-only) away from even the local system administrators.</p>
Logging and tracing improvements	<p>Logging and tracing has been improved for better troubleshooting also in larger and busier systems. Log levels may now be controlled in more granular way to get less, but more relevant logs. highly detailed logging may now be enabled separately by code location inside each component, category of event (e.g. networking or database access) or even per individual transaction (e.g. a single phone call or a user session).</p> <p>In addition to traditional human readable log formats, SAP BCM 7 now supports also some SAP standard log formats like Generic Log Format (GLF) and List format. New log formats allows easier integration to other SAP troubleshooting and root cause analysis tools.</p>
New log reading tool	<p>SAP BCM 7 introduces new log reading tool "SAP BCM LogViewer" that helps finding customer reported problem from SAP BCM log files. New log reading tool allows to read /trace multiple log files simultaneously highlighting e.g. traced contact id related rows from various SAP BCM log files.</p>

### 3.11. Security and Data Privacy

SAP BCM 7 provides multiple new mechanisms to improve SAP BCM system security and data privacy.

Functional area	Description
Role based access control	<p>User groups and user roles define the set of rights for the users. User roles and their rights can be designed based on individual customer needs. Right model implements fine grained permissions for the defined parts and defined data of the system. The type of access is part of the permission definition e.g. user may have read or modify access to the defined object.</p> <p>Users may be assigned to multiple groups or roles and rights inherit from hierarchical groups. Certain objects have special right definitions that may apply to the specific object or object group like e.g. grant access to recordings of some user or granting access to serve in certain queue or granting supervisor actions towards certain group of user. Segregation of duties is supported i.e. user may have rights to give rights to others although user does not possess all the rights in question.</p>
Audit log	All user actions may be recorded into separate audit logs. Level of detail may be controlled with audit log settings.
Secure internal server connections	<p>All internal server connections between different BCM server nodes may run in encrypted and authenticated mode using certificates.</p> <p>Also SAP BCM Client Terminal can use https protocol in case SAP BCM customers want to encrypt connection between SAP BCM server and user softphone client (since SAP BCM 6.0).</p>

### 3.12. Softphone Terminal component support

SAP BCM 7 softphones (CDT and Convergence) Terminal component support has been improved making server software upgrades easier to manage.

Functional area	Description
New Client Terminal components	<p>SAP BCM 7 Terminal component needed to use CDT softphones is divided into following parts: Proxy, Core and Device DLLs. One workstation can have single proxy component and multiple core components and multiple device DLLs according to what USB devices are used on the workstation.</p> <p>Client Terminal ActiveX Proxy component interacts with CDT softphone and delivers CDT softphone requests to core component that interacts with SAP BCM server components. SAP Convergence softphone include proxy component and thus doesn't require ActiveX proxy. SAP Convergence proxy use same core components as CDT, but without ActiveX.</p>

Functional area	Description
Client Terminal support for multiple Support Packs simultaneously	<p>New Client Terminal checks automatically SAP BCM server software version and selects appropriate Client Terminal combination (proxy and core) automatically.</p> <p>For example with SAP BCM server Support Pack (SP) level upgrade from SP1 to SP2, the new SP2 level core component can be installed to SAP BCM softphone users workstations e.g. one week before server side upgrade. Once CDT starts, it notices that SAP BCM server software level is SP1 so CDT starts up using SP1 core + proxy combination. Once server software is upgraded to SP2 level, CDT notifies this once it is restarted and starts up using SP2 core + proxy combination.</p> <p>This new mechanism helps SAP BCM software upgrades related work significantly since user workstations /clients can be updated in advance as with SAP BCM 6.0 both server and clients needed to update at the same time. In addition, rollback to previous SP level is easier with SAP BCM 7 since old core components still exists on the workstation so rollback is needed only on the server side.</p> <p>After e.g. two years, one workstation can have multiple Client Terminal core components according to what SPs are taken into use. Customers' IT department may decide at their own pace when they want to clean up old unused core components from user workstations.</p>

### 3.13. SAP Solution Manager Integration

SAP Global Support uses SAP Solution Manager e.g. to access customer SAP systems for remote support operations and to collect various data from customer SAP systems for maintenance and support purposes.

Functional area	Description
SLD integration	All SAP BCM 7 server software modules /model with respective version information is registered into SLD (System Landscape Directory) which is repository for system information in SAP Solution Manager. System model is updated automatically into SLD each time the model changes.
Performance metrics with CA Wily integration	SAP BCM system provides system certain performance metrics (CEM and OII processes) to SAP Solution Manager diagnostics or 3 <sup>rd</sup> party diagnostics tools using CA (Computer Associates) Wily Introscope integration.
Alarms integration	SAP BCM Alarm Server and SAP Solution Manager CCMS (Computing Center Management System) can be integrated using SNMP traps.
Component Configuration	SAP BCM provides Administration and Configuration Interface (ACI) which can be used to provide SAP BCM server side configuration details /information to SAP Solution Manager.
Front-end (=client) Problem Analysis	SAP provides licenses for BMC Software AppSight Application which can be used for any front end application resolving client side problems. This is separated tool from SAP Solution Manager.

### 3.14. SAP BCM 7 Installation Packages

SAP BCM 7 installation packages are used to install and upgrade SAP BCM 7 system.

Functional area	Description
New SAP BCM 7 software installation packages	<p>New SAP BCM 7 software installation packages are:</p> <ul style="list-style-type: none"> <li>▪ Agent Server</li> <li>▪ Batch Job Server</li> <li>▪ Call Dispatcher</li> <li>▪ Directory Server</li> <li>▪ E-Mail Sender</li> <li>▪ Configuration Database</li> <li>▪ Directory Database</li> <li>▪ Operative Database</li> <li>▪ Outbound Database</li> <li>▪ Remote Administration Tool</li> </ul> <p>Removed software installation packages are (since SAP BCM 6.0):</p> <ul style="list-style-type: none"> <li>▪ IWS (Internal Web Server)</li> <li>▪ Federation Bridge</li> <li>▪ CEM Database Server</li> <li>▪ CPM Database Server</li> <li>▪ Web Administration Tools</li> <li>▪ High Availability Controller</li> <li>▪ Synchronization Modules</li> <li>▪ Communication Server</li> </ul> <p>For more information about installing and upgrading to SAP BCM 7 system, see SAP BCM 7 Installation and Upgrade Guides available on SAP Service Marketplace.</p>

## 4. SAP CRM integration new features

### 4.1. SAP CRM integration improvements

SAP BCM 7 provides best of breed contact center platform integration with SAP CRM enabling agents to handle customer contact (e.g. call, email, chat) and customer issue (e.g. order, service ticket) with one user interface – SAP CRM Interaction Center.

Functional area	Description
Outbound campaigns, call list transfer and synchronization	<p>SAP BCM 7 and SAP CRM 7.0 EhP1 enable telemarketing campaigns integration with following high level workflow:</p> <ul style="list-style-type: none"> <li>▪ The campaign call lists are defined and created in SAP CRM</li> <li>▪ Also the campaign related scripts and other campaign related promotions are managed in SAP CRM</li> <li>▪ The call lists are automatically transferred to SAP BCM, when the call list execution mode is defined as automatic in SAP CRM. If there are call list item changes during the campaign is active, the changes are also automatically transferred to SAP BCM.</li> <li>▪ The agent assignment and campaign dialing mode (preview, progressive, predictive) are managed in SAP BCM System Configurator tool</li> <li>▪ An contact center agent calling out campaign calls uses SAP CRM Interaction Center user interface to place out call, handle customer activities during the call (e.g order intake) and report call results.</li> <li>▪ Campaign calls can be monitored and reported on SAP BCM side and Campaign Results (e.g. number of new orders) can be best monitored and reported on SAP CRM side.</li> </ul>
Action item routing supporting skills	<p>With SAP BCM 7 the action item routing will support also skills. SAP CRM can send skill requests with the action item to SAP BCM. These skill requests will be used for agent selection in SAP BCM routing.</p>
Access SAP BCM absence profiles via SAP CRM Interaction Center UI	<p>Contact Center agent can activate SAP BCM absence type of profile via SAP CRM Interaction Center user interface making integrated usage scenario more convenient for the user.</p>
Multi-session support (new call or chat in addition to ongoing email interaction)	<p>SAP BCM 7 supports SAP CRM Interaction Center capability for multi-sessions. This means that, if user is working with email, user can accept also an inbound phone call or chat request for processing. In this case the inbound phone call or chat will be handled in a new SAP CRM Interaction Center user interface tab. User can navigate between the tabs in Interaction Center UI.</p>

## 5. Globalization new features

### 5.1. User Interface, Prompt and Documentation languages

SAP BCM 7 language and documentation support has been extended significantly. SAP BCM 7 supports total 19 languages.

Functional area	Description
Application Help	User interface documentation can be accessed easily via Application Help functionality. Application Help is found via particular SAP BCM user interface Help-menu option.
Communication Desktop and SAP Convergence user interfaces and documentation	Communication Desktop (CDT) and SAP Convergence user interfaces and related documentation are now also available in Japanese, Chinese, Turkish and Slovak.  Other existing supported languages are: English, German, French, Spanish, Portuguese, Italian, Dutch, Russian, Polish, Czech, Hungarian, Swedish, Danish, Norwegian and Finnish
Voicemail and other voice prompts languages	Voicemail and other voice prompts (e.g. default queue welcome and announcement prompts) are available in all previously mentioned 19 different languages. English language voice prompts are available in US and UK versions.
Online Monitoring and Reporting user interfaces and documentation	Online Monitoring and Reporting user interfaces are designed for Power Users. Power Users related user interfaces and related documentation are available in following languages: English, German, French, Japanese, Spanish, Portuguese and Italian.
System Configurator user interface languages and documentation languages	System Configurator user interface is designed for Administrative users with technical and/or business background. Therefore, SC user interface and related documentation support English, German, French and Japanese.
Multi-lingual entries in System Configurator	System Configurator supports multi-language entries: e.g. users and queues can have name with multiple languages (e.g. Western and Asian name entries). End users will always see name entry according to their selected language (e.g. in CDT directory view). If particular language name entry field is empty, then system default language entry will be shown for the user. In case also default language entry field is empty, then language entry with highest language priority will be shown for the user.  For example user default language (e.g. English) entry is "John" and relevant Russian language entry is "Оцпр". BCM users using English language UI will see English language entry and BCM users using Russian language UI will see Russian language entry.
Infrastructure Administrator UI and documentation language	Infrastructure Administration user interface is designed for technical administrators. Therefore, IA user interface and related documentation support English only.

## 6. Server and Client Software Support

### 6.1. Supported Server and Client software

SAP BCM 7 supports following Server and Client software.

Functional area	Description
Supported Server software	<p>Supported server operating systems and web servers</p> <ul style="list-style-type: none"> <li>• Microsoft Windows 2008 Server and 2008 R2 Server               <ul style="list-style-type: none"> <li>○ x86 based 32- and 64-bit versions</li> </ul> </li> <li>• Microsoft Windows 2003 Server               <ul style="list-style-type: none"> <li>○ x86 based 32-bit version for SAP BCM application servers</li> <li>○ x86 based 32- and 64-bit versions for SAP BCM Database servers</li> </ul> </li> <li>• Microsoft Internet Information Services (IIS) versions 6 and 7</li> </ul> <p>Databases</p> <ul style="list-style-type: none"> <li>• Microsoft SQL Server 2008 and SQL Server 2008 R2               <ul style="list-style-type: none"> <li>○ x86 based 32- and 64-bit versions</li> </ul> </li> <li>• Microsoft SQL Server 2005               <ul style="list-style-type: none"> <li>○ x86 based 32- and 64-bit versions</li> </ul> </li> </ul>
Supported Client software	<p>Supported client operating systems</p> <ul style="list-style-type: none"> <li>• Microsoft Windows XP and Vista</li> <li>• Microsoft Windows 7               <ul style="list-style-type: none"> <li>○ 32- and 64-bit versions</li> </ul> </li> </ul> <p>Supported Internet Browsers</p> <ul style="list-style-type: none"> <li>• Microsoft Internet Explorer version 7.0, 8.0 and 9.0</li> <li>• Note! Microsoft Internet Explorer version 6 support is discontinued</li> </ul>