



CHANGELOG

PBXware 7.5.0.1



wiki.bicomsystems.com

7.5.0.1 - June 3, 2025

Bug Fixes & Improvements

- Trunks: Make the default value 'Yes' for the 'Allow ES Caller ID' option.
- Fixed an issue where the Teams Presence sync doesn't correctly handle organisations with more than 100 users.

Features

- Call Recording Transcriptions.
- Chat Topics.
- Event Manager.
- Call Quality (MOS).
- MS Teams Presence Sync.
- Single Sign-On.
- SMS Rating.

Bug Fixes & Improvements

- Access codes: Fixed an issue with allowing Enhanced Call Parking code to be assigned as an extension number.
- Accounts: Fixed an issue where a breached password check was executed for empty password fields.
- Action Logs: Fixed an issue with user-specific searches returning combined results.
- AGI: Fixed an issue with tenant to tenant calls dialing over the trunk when the extension was offline.
- AGI: Fixed an issue where a small decimal number for Minimum Charge would not allow a call to go through.
- API: Added all destination types available for Call Filters & Blocking in GUI that were not available through API before.
- API: Added extension ID validation for all API ES actions.
- API: Added MOS score to the CDR download API and the ability to fetch MOS data for a specific CDR.
- API: Added missing destination types for IVRs that are available through the GUI.

- API: Added the ability to add, edit and delete Departments via API.
- API: Added the ability to add, edit and delete Paging Groups through the API.
- API: Added the ability to configure SMS Ratings using the API.
- API: Added the ability to retrieve transcriptions for a specific CDR through the API.
- API: Added the ability to set 'Do Nothing' as the 'dtype' for Call Filters & Blocking.
- API: Added the ability to set states for all Enhanced Services through the API.
- API: Added the ability to use the "-" character in the "host" field for the trunk.
- API: Added validation of values for Ring Group fields that are dropdowns in the GUI
- API: Allowed '*' to be used for extensions on the BLF list edit.
- API: Allowed unicode characters in extension names when editing/adding extensions via API.
- API: Exposed the Monitor > Trunks page via API.
- API: Fixed request parameters and response types for dashboard actions so that they correctly follow the API conventions.
- API: Fixed request parameters and response types for routes (pbxware.routes) so that they correctly follow the API conventions.
- API: Fixed the API response for editing Operation Times on IVRs.
- API: Fixed an issue where Editing a Trunk via API would overwrite SIP Custom Headers and remove them.
- API: Fixed the SMS rating warning missing in the create extension API call.
- API: Fixed a field reset issue on Ring Group edit.
- API: Redirect to the API Keys list after changing the language on the API key edit page.
- API: Removed the "busylevel" field from the trunk API and removed the "emergency trunk" field from the trunk API for MT systems.
- API: Updated the docs.
- Archiving: Resolved a OneDrive archiving issue with session URL handling.

- Asterisk: Allowed setting the number of http sessions, the default is set to 1024.
- Auto provisioning: Added a new MAC address range for Grandstream UADs.
- Auto provisioning: Added support for Cisco ATA 191 and ATA 192.
- Auto provisioning: Added support for the CyberData SIP Call Button.
- Auto provisioning: Added support for Fanvil Linkvil W611W.
- Auto provisioning: Added support for Fanvil V61G and V62W.
- Auto provisioning: Added support for Flyingvoice P10G, P10W and P10LTE.
- Auto provisioning: Added support for Flyingvoice P20, P20G and P20P devices.
- Auto provisioning: Added support for Flyingvoice P22G and P22P devices.
- Auto provisioning: Added support for Grandstream HT812.
- Auto provisioning: Added support for Grandstream WP820.
- Auto provisioning: Added support for Snom D812 and D815 devices.
- Auto provisioning: Added support for Wildix WP410, WP480G and WP490G devices.
- Auto provisioning: Added support for Yealink AX83H.
- Auto provisioning: Added support for Yealink AX86R.
- Auto provisioning: Added support for Yealink T67LTE.
- Auto provisioning: Fixed an issue with an infinite loop caused by the BLFs for Yealink devices.
- Auto provisioning: Fixed issues with CSVs for the 'Add Multiple Extensions' section.
- Auto provisioning: Fixed 'CSV Upload' issues when creating multiple extensions.
- Auto provisioning: Modified timezone configuration for Grandstream UADs.
- Auto provisioning: Added BLF Start functionality for Mitel devices.
- Auto provisioning: Added support for Yealink T73U, T73W, T74U and T74W.
- Auto provisioning: Added support for Yealink T77U, T85W and T87W.
- Bulk Messages: Added a Rating extension field to Bulk Messages.

- Branding: Added the ability to fetch Web Branding from BRM.
- Branding: Fixed the branding for Login page > Login box.
- CDR: Fixed an issue where the OSC would show call legs of other extensions by matching part of the IP address as the extension number.
- CDR: Fixed an issue where the 'Voicemail in CDRs' option did not apply properly.
- Certificates: Apply certificates during runtime when they are renewed/replaced so that there is no need to do an Asterisk restart.
- Certificates: Improved the behaviour of applications which required restarts when renewing/changing certificates.
- Chat Features: Added support for the new Chat Topics/Threads feature.
- CNAM: Fixed fields that were not being grayed out when the CNAM Settings section was disabled.
- DID: Fixed the distance between edit and delete icons in the GUI.
- DID: Fixed an issue with sorting newly added DIDs independently of old ones.
- DID: Fixed an issue when a Site user edits the DID.
- Dispatchable Locations: Fixed an issue where the address would show as partially successful if the street suffix was empty.
- Email Templates: Added the ability to print up to 5 DIDs associated with an extension using the %DID% template variable.
- Email Templates: Extended the text field so that meeting templates could be customized with more data.
- Email Templates: Fixed an issue with the default template being shown each time the HTML email templates were shown.
- Email Templates: Fixed an issue where the div tags in the meeting email template were causing rendering issues.
- Email templates: Added the %SERVER% variable for the 'New Extension Template', and removed the 'Extensions SMS HTML' section.
- Email templates: Removed %SMS_NUMBER% from the default template.
- Email templates: Removed 'User Subject (Copy)' field from New Site User Template.

- Email2fax: Fixed an issue with the total pages always displaying 0.
- Embedded documentation: Fixed an issue where the tooltips would not be shown properly for some pages
- Event Manager: Added the Event Manager feature.
- Extensions: Fixed an issue where the extensions would not log out from gloCOM when their status was set to 'Not Active'.
- Extensions: Ensured tenant-specific PIN-based devices are included in CSV downloads.
- Extensions: Prevent client app logins if the tenant status is 'not active'.
- Fomantic UI: Updated the Fomantic UI to 2.9.3, jQuery to the latest version (3.7) and added FontAwesome 5.15.4 icons.
- Groups: Fixed an issue where the tenant was not being shown in the GUI if the tenant's name was too long.
- GUI: Fixed the issues on pages where the 'Go Back' button returned to the first page instead of the previous page.
- GUI: Added tenant ID and package ID on edit pages.
- GUI: Fixed a warning on the Login Page after entering an invalid username or password.
- IVR: Added the ability to set ERG Priority when the ERG was selected as the destination.
- Language: Fixed a login button issue when other languages were selected; Fixed problems with spanish translation strings and made the updates warning message smaller.
- LDAP: Added support for Snom phones and fixed a bug with fetching archived extensions.
- LDAP: Added the ability to enable TLS for LDAP per tenant.
- Memcached: Fixed an issue where channel limits did not clear properly prior to a normal asterisk start/restart operation.
- MOS: Added the ability to disable MOS logging.
- MOS: Added MOS score to CDR Reports.

- MS Teams: Added a Menu item for MS Teams integration and added the possibility to select OAuth2 Credentials for Presence Sync.
- MS Teams: Added an option on the tenant level to enable Presence Sync.
- MS Teams: Added the presence status indicator in Microsoft Teams Integration Settings.
- Music On Hold: Added the option to set HTTPS Streams.
- Operation Times: Fixed CSV downloads on Chrome having the '.csv_' file type.
- Paging groups: Added the ability for extension numbers to be pre-populated when creating paging groups.
- Paging groups: Fixed an issue with duplicate numbers for paging groups.
- Phone book: Changed the phone book label from 'Central' to 'Personal' for extensions and OSC.
- Queues: Fixed an issue where deleting queues on MT would cause an error.
- RayBaum: Fixed an issue where a warning would be displayed when a Dispatchable Location was only partially validated in the OSC.
- Recordings: Fixed an issue where an additional call recording file was created by mistake when switching devices to mobile phone.
- Routes: Added Disabled Routes per Tenant.
- Service plans: Added the ability to apply inclusive minutes on inbound calls.
- Setup Wizard: Fixed a broken link for GNU on the EULA page.
- SMS: Added the ability to rate messages.
- SMS: Added a Bulk SMS HELP option.
- SMS Notifications: Fixed an issue where SMS notifications would fail to send.
- SMS Connector: Updated the validation to allow hyphens in Webhook URLs.
- SMS Reports: Added the 'Rating' column in SMS Reports and Rating filters.
- SMS Trunks: Added the National prefix field to SMS trunks.
- SSO: Added the option to control the SSO through the license with the trial option.

- SSO: Added the SSO feature.
- TLP: Added support for Snom D812 and D815 devices.
- Transcription: Added the ability to generate call recording transcriptions.
- Transcription: Added the ability to disable the On-Demand transcription feature.
- Translations: Updated Portugese, Portuguese (Brazil), Spanish, French translation files.
- Trunk: Added the 'Start/Stop/Not set' options for call recordings.
- Trunk: Increased the maximum length of 'Authname' from 20 to 50 characters.
- Trunk: Fixed an issue with the 'Allow ES CallerID' setting.
- Users: Fixed an issue where the user would not be logged out from the OSC and Apps when an extension was deleted or set as not active.
- Voicemail: Fixed an issue with blocked voicemail notifications not being sent.
- Voicemail: Fixed an issue with hangups during voicemail group greetings.
- Voicemail: Voicemails resequence only after all files have been moved/deleted.

New Endpoints



Cisco ATA 191



Cisco ATA 192



CyberData SIP Call Button



Fanvil Linkvil W611W



Fanvil V61G



Fanvil V62W



Flyingvoice P10G



Flyingvoice P10LTE



Flyingvoice P10W



Flyingvoice P20



Flyingvoice P20G



Flyingvoice P22G



Flyingvoice P20P



Flyingvoice P22P



Grandstream HT812



Grandstream WP820



Snom D812



Snom D815



Wildix WP410



Wildix WP480G



Wildix WP490G



Yealink AX83H



Yealink AX86R



Yealink T67LTE



Yealink T73U



Yealink T73W



Yealink T74U



Yealink T74W



Yealink T77U



Yealink T85W



Yealink T87W

Contact Center Module

Features

- Agent Auto Logout: Added an option for automatic agent logout, including enhancements to handling scheduled timers and login states.
- Contacts: Added support for integrating Office 365 and Custom Contacts sources into the PBXware Central Phone Book.
- Setup Wizard: Added an option to select a preferred language due to setup wizard installation.

• Improvements & Bug Fixes

- Agent: Added an option to enable/disable 'Agent Auto logout' and 'Scheduled timer' field input.
- CDR: Fixed bug with CDRs being logged as failed instead of Not Answered.
- Clickhouse: Fix SQL replicator rollback failure handling to prevent fatal termination.
- CRM: Added logic for firing events to CRMConnector on transfer and conversation completion.
- CRM: Added user extension destinations for CRM Routing.
- CRM Bullhorn: Enhanced URL query encoding and search optimization.
- CRM Hubspot: Added access-token-based rate limiting.
- CRM Hubspot: Fixed issues with undefined keys and passing null service variables.
- CRM Hubspot: Updated all endpoints to use the v3 Objects API.
- CRM Salesforce: Call recording links are now generated and saved immediately when the call log is created, if the "Create call log when call starts" option is enabled.
- Omni: Deleted old data from returning customer tables and applied a 99-time frame limit.
- Omni: Moved the option to set the "Thank you message" under the survey add/edit menu.
- Omni: Sending real-time updates to visitors when tickets are assigned or transferred.

- Omnichannel Email: Implemented email channel improvements, including the ability to change the IMAP mailbox field.
- Queues: Improved queue wrap-up time handling.
- Queues: Removed the persistent members option from queues.
- Scheduled Reports: Fixed an issue where scheduled reports would break when created by a user with all permissions.
- Setup Wizard: Fixed an issue with language selection due to LOCPATH settings.
- Sitemanager: Prevented XSS Exploits on statistics reports.
- Statistics: Added customer names in returning customer reports.
- Statistics: Added extension name and number to ERG reports.
- Statistics: Added new filters for Speed to Answer, Waiting Time, and Activity Time.
- Statistics: Fixed an issue with missed conversations for online agents.
- Statistics: Improved accuracy of comparison signs in reports.
- Statistics: Fixed an issue where queue statistics were not displayed when two or more queues were selected.

7.4.0.3 - March 13, 2025

Bug Fixes & Improvements

- Queue/ERG: Fixed an issue where an Event was not properly logged, causing missing information in statistics.

7.4.0.2 - February 11, 2025

Bug Fixes & Improvements

- Queue: Fixed an issue where enabling the 'Returning Customer' option would cause Asterisk to crash in some cases.

7.4.0.1 - February 4, 2025

Bug Fixes & Improvements

- Fixed an issue where sending voicemail emails would sometimes fail.
- Fixed an issue where clicking 'Save & Email' when editing a user would show some errors in the user interface.

Features

- OAuth: New implementation.

Bug Fixes & Improvements

- API: Added the ability to add/edit the SN number on the extension.
- API: Added the option to set and configure gloCOM editions and modules.
- API: Added the extension ID validation before all API Enhanced Services actions.
- API: Enabled setting additional MAC Addresses per Extension.
- API: Exposed 'Set and List Apps - Templates' through the API.
- API: Fixed an issue where 'pbxware.ext.editions_modules.set' would return two errors for the same response.
- API: Fixed an issue with listing DIDs when the DID mode is set to 'Group'.
- API: Fixed an issue with empty dhcp and mac fields on BLF list edit.
- Archiving Page: Fixed an issue where the page is grayed out when the Master Tenant section is enabled.
- Archiving: Fixed an issue where call recordings would not be offloaded for calls that end after the archiving the offload cycle.
- Agi: Fixed an issue where multiple 'L' dial options were set simultaneously. The system now correctly uses only the lowest value.
- Auto provisioning: Fixed an issue with BLFs for Avaya J139.
- Auto provisioning: Fixed an issue with BLFs for Grandstream GXP devices.
- Auto provisioning: Fixed the SIP Account counter in the Gigaset N870 configuration file.
- Chat Archiving: Fixed an issue where email and relicensing would not work because of the worker not running.
- CNAM: Fixed the CNAM lookup to work when the lookup field value is an array.

- Conferences: Implemented the 'Mute external users on join' option.
- Conferences: Fixed an issue where the tenant code would be appended to the conference number.
- CSV: Fixed issues with CSV files when adding multiple extensions.
- Dashboard: Fixed an issue where the counter for Web editions would not show the correct value.
- DID: Added the ability to restrict adding, editing, and deleting DIDs.
- DID: Fixed Prioritize CLI Routing not working when a Custom Destination is set under Operation times.
- DIDs: Fixed an issue where the call would go to an External Destination even when the Tenant is suspended or 'Not active'.
- DID: Fixed a warning related to CSV uploads on DID.
- Dispatchable locations: Allowed letters in the house number field.
- Email templates: Exposed the ERG Abandoned Calls Template.
- Email templates: Exposed the Exceeded Channel Limit Template.
- Email templates: Exposed the Exceeded Licence Channel Limit Template.
- Email templates: Exposed the Exceeded Trunk Limit Template.
- Email Templates: Exposed the Rate limit template.
- Enhanced Services: Fixed an issue where the Confirm Call feature for Call Forwarding would not work if the destination was an external number.
- Enhanced Services: Increased the number of Exclude list items in Call Forward to 30.
- Extensions: Hid the 'Copy As New' button for users when the 'Disable Create Extension' permission is set.
- Extensions: Fixed an issue with the same info being sent for multiple extension emails.
- File System: Fixed an issue The same value was being set for cdr_remote_recordings and cdrs when archiving data.
- Groups: Fixed an issue where tenant permission on Groups would not work for tenants with long names.

- IVR statistics: Fixed an issue where the label in statistics was blank when Local Dialing was used.
- jQuery: Patched jQuery with security fixes for 3.1.1.
- Onedrive: Fixed an issue where call recording offload would sometimes fail when the parent folder could not be found.
- Operation Times: Fixed an issue where midnight reset would not work when pin is enabled.
- OSC: Redesigned the OSC menu. Added a button with the link to gloCOM WEB.
- Password reset: Fixed the URL being invalidated before being opened, added a button to show password.
- Routes: Fixed an issue where routes would fail to save on Safari browser.
- Service plans: Fixed an issue when uploading a large CSV file to Service Plans Rates would fail.
- SFTP: Fixed an issue with the SSH connection not closing for the remote-fs service.
- SMTP: Added the ability to use existing OAuth2 credentials for Authentication.
- SMS: Fixed an issue where downloading the Blocklist CSV from tenant level resulted in downloading numbers from all tenants.
- Tenant-Level Configuration: Added the ability to set Maximum Contacts per Tenant using API.
- Tenants: Added an option to search LDAP contacts by 'Starts With' or 'Contains' logic.
- Touchless Provisioning: Fixed an issue with displaying an error if an incorrect Client ID or Client Secret is entered in the Touchless Provisioning Config for the Yealink YMCS portal.
- Translations: Changed the word 'home' to 'residential in the Central / Personal phonebook'.
- Translations: Updated translation files for Portuguese (Brazil), Portuguese, Spanish, and French.
- Trunk: Added 'Send History-Info header' for tracking a call's redirection or forwarding.
- UAD: Fixed an issue where Additional Configuration was not properly saved when it contained quotes.

- Updates: Changed the changelog URL to a new destination.
- Voicemail: Added information that files have been renamed after move/delete.
- Voicemail: Fixed an issue with high resource usage when utilizing Voicemail Groups with large number of members.
- Voicemail: Fixed an issue where voicemail messages would not be reordered if moved/ deleted through gloCOM.

Contact Center Module

- Contact Center: Introduced customer satisfaction surveys for messaging and voice channels, allowing customer feedback collection through surveys.
- Channels: Enabled a “Leave a message” form in LiveChat with configuration options per queue.
- CMP: Enabled local deployment of the CMP into PBXware.
- Email Signatures: Created email signature templates.
- Statistics: Added survey statistics, viewable by agent and by queue.
- Voice Queues: Added “Returning customer” options for voice queues.

Bug Fixes & Improvements

- app_queue.c: Fixed an issue with the ttime value being incorrectly set to 0 in statistics.
- Channels: Added a ticket ID to email subjects to prevent ticket creation issues on replies.
- Channels: Enhanced Pre-Chat Forms, allowing admins to configure live chat initiation with a pre-chat form or anonymously.
- ContactCenter: Implemented an ARI user event trigger when an agent is paused, allowing customers who rely on AMI events to receive notifications of agent pauses as expected.
- ContactCenter: Removed HTML from the last_message metadata in the login payload to improve the loading speed of the agent app.
- ContactCenter: Added an option in Queue settings to enable or disable the display of missed calls for queues within the agent and supervisor panels.
- Conversations: Fixed an issue with filters not working for closed conversations.
- CMP: Fixed an issue with invalid token errors for the 360Dialog.
- CRM: Added an option for Salesforce to select call record upload type.
- CRM: Added support for sending data as a POST method with a custom header, and increased the character limit for inputs.

- Dialer: Resolved an issue with identical leads appearing for multiple agents simultaneously.
- Live Chat: Added a new chat widget implementation.
- OSC: Enabled listening to recordings from URLs uploaded to a CRM.
- Queue: Fixed an issue with the incorrect ring time being used when transferring calls to an extension.
- Queue Recording: Addressed an issue with recording overwrite during blind transfers between queues.
- Queue, ERG: Added a warning message when changing Queue or ERG names to prevent duplication or deletion of statistics for queues in queue statistics.
- Scheduled Reports: Fixed an issue that occurred when French was selected as the language for the Scheduling report.
- Scheduled Reports: Resolved a bug when selecting Agent sessions and pauses within scheduled reports.
- Scheduled Reports: Fixed a permissions bug in scheduled reports.
- Statistics: Added agent identifiers as agent names in breakdown statistics to enhance user experience and clarity.
- Statistics: Fixed queue search functionality within agent and queue statistics.
- Statistics: Added missing Facebook and WhatsApp channels to reporting graphs.
- Statistics: Fixed an issue with graphs not generating when French was selected as the language.
- Statistics: Fixed an issue with permissions in order to make recordings available without requiring CDR permissions.
- Statistics: Fixed an issue with the incorrect display of agent availability, ensuring the correct number of conversations is shown.
- Statistics: Fixed an issue where Queue Statistics did not work when “All Queues” was selected for Tenant Users, and resolved an issue where Scheduled Reports displayed empty data.
- Voicemail: Fixed an issue that occurred when a voicemail group was called via a DID with call recording enabled.

- Zendesk: Enabled API token authentication.
- Zoho: Added an option to choose a mode for creating unknown callers.

New Endpoints



Avaya J139



Cisco CP-7861



Flyingvoice FIP16 Plus



Flyingvoice P10



Flyingvoice P23G



Snom M100



Snom M430



Yealink T64LTE

Bug Fixes & Improvements

- Asterisk: Fixed issue where in some cases, when Asterisk booted up slowly, system changes were not applied properly.
- CRM: Added support for Zendesk API Token Authentication.
- Clickhouse: Allow setting Hostname for ClickHouse server.
- Extensions: Changed Call Rating default value from “No” to “Not Set” when creating new extensions.
- Event Manager: Fixed issue where the Save and Test button was not working when French language is selected.

Features

- API: Added the option to set additional MAC Addresses per Extension.
- Operation Times overview page.
- SMS Blocklist.
- SMS: SMS Predefined list.
- SMS Opt-in and Opt-out option.
- Touchless Provisioning: Yealink's new YMCS portal integration.

Bug Fixes & Improvements

- AGI: Fixed an issue where dialing a number with a special character would fail.
- API: Added missing destination types to add/edit DIDs.
- API: Fixed double responses when editing DID groups.
- API: Fixed empty responses when listing destinations and destination groups.
- API: Fixed issues with some fields when adding, editing, and getting information about extension slave status.
- Archiving: Implemented enhanced logging for complete process monitoring.
- Auto Provisioning: Added Call Parking type to DSS keys for Fanvil devices.
- Auto Provisioning: Added support for Fanvil X301W and Fanvil X303W.
- Auto Provisioning: Added support for new Mitel 6930 and 6940 devices.
- Auto Provisioning: Added support for Snom D140.
- Auto Provisioning: Added support for Yealink DECT W75B.
- Auto Provisioning: Fixed a Grandstream LDAP Lookup issue.
- Auto Provisioning: Fixed a BLF issue for Fanvil X4U, X5U and X6U devices.

- Auto Provisioning: Added the option to configure a failover SIP WAN server for Polycom and Yealink devices.
- Auto Provisioning: Added support for Directory URL customization.
- CDR: Created additional CDR for calls that are re-routed due to closed operation times.
- Chat Archiving: Resolved an issue where chat archiving would fail to properly archive messages.
- CLI Routing & Validation: Fixed an issue where the routing destination would not be saved.
- CLI Validation&Routing: Implemented the ability to assign multiple extensions when the Multi-User destination is selected.
- Conference Groups: Increased the maximum number of allowed users to fifty per group.
- DID: Added parking lot as a destination for DID.
- DIDs: Added the option to assign a DID as the Main number.
- DIDs: Implemented the ability to assign multiple extensions when the Multi-User destination is selected.
- Extensions: Added the ability to configure the maximum number of applications that can connect to an extension at the same time.
- Extensions: Fixed an error on edit extension for user account without the 'Show advanced' option enabled.
- Extension Statistics: Fixed an issue where opening a PDF report would display an error.
- gloCOM Settings: Added an option to hide the meeting icon per Tenant and per Extension.
- gloCOM Settings: Added an option to Disable MMS per extension/tenant/system.
- Google Speech-to-Text: Added support for Regional endpoints (US and EU).
- Hubspot: Fixed an issue for CRM routing with an empty value on a large system where the call would always get routed to the default destination.

- Meeting: Prevented the creation of additional CDRs when users join meetings by dialing the number.
- Menu: Fixed an issue with overflow for strings with exactly 27 characters.
- Operation Times: Skip pin check for the midnight reset call.
- Reports: Created a new reports page to identify the Operation Times rules on DIDs, IVRs, Queues and Dial groups.
- SMS: Added an SMS Blocklist feature.
- SMS: SMS Opt-out feature.
- SMS: Added an SMS Predefined list feature.
- SMTP: Fixed an issue with saving SMTP configurations with specific domain names and removed usage of ANY records and used A/AAAA records to resolve SMTP domains instead.
- Special Routes: Fixed an issue where the Special Route destination would not be saved.
- STIR/SHAKEN: Set the correct destination number for call signing.
- Statistics: Fixed an issue where the Check CDR option would not find a CDR if calls were made using deskphone mode.
- Translations: Updated French (fr_FR), Spanish (es_ES), Portuguese (pt_PT) and Portuguese (Brazil) (pt_BR) translation files.
- Trunks: Sent the correct privacy info for PAI header.
- Trunks: Added the option to set the P-Charge-Info header on trunks.
- Trunks: Added support for the '%TENANT_ID%' variable for trunk SIP headers.
- Updates: Implemented the ability to create snapshots when running updates on a SERVERware VPS instance.
- Added the subject and the description fields to the meeting email template.

New Endpoints



Fanvil X301W



Fanvil X303W



Mitel 6930



Mitel 6940



Snom D140



Yealink DECT W75B

Contact Center Module

- Statistics: Implemented new Conversations Summary report to show summarized data for calls.
- Statistics: Implemented the Chat Transcript feature to review customer interactions.

Bug Fixes & Improvements

- CRM: Fixed an issue with Zoho CRM where a new lead created through the GUI was not found in subsequent tests, instead generating a duplicate lead with the same number.
- Monitor Calls: Resolved an issue where the call duration was incorrect when switching tabs on the Live Calls page.
- Hubspot: Added phone number to form.
- Settings: Added an option in messaging settings to set the first response timeout per channel.
- Settings: Trimmed the last '/' from the CMP URL to avoid issues with calling the CMP endpoint.
- Statistics: Resolved an issue in ERG Statistics where the breakdown of the report displayed an incorrect number of calls.
- Statistics: Fixed an issue with permissions for Queue Unanswered Calls statistics for Site User.
- Statistics: Fixed an issue with Agent statistics when transferring calls.
- Omnichannel: Added ticket ID into subject to avoid issues with ticket creation on reply when the in-reply-to header is changed by the mail server, e.g., in the case of Outlook.
- Omnichannel: Fixed an issue where emails were not being handled in real-time due to improper server handling, causing the email fetching routine to stop receiving new emails.
- Omnichannel: Fixed a JavaScript error that prevented warning messages from appearing in French when creating a new channel in Omni.
- Omnichannel: Fixed an issue with the chatbot where the ' character was stripped incorrectly, causing JavaScript errors and sending incorrect characters in messages.

Meeting Module

Bug Fixes & Improvements

- Added an attendance report API.
- Added an automatic invite notification when the meeting starts, or participants are added.
- Added the meeting description to the meeting invite/update/cancel email templates.
- Added support for controlling meeting button visibility from the PBXWare site manager.
- Fixed an issue with the license update not triggering the on-site manager license refresh.
- Fixed an error that occurred when handling GetJoinByNumber actions.
- Fixed an issue with a close response body after completing an HTTP request and resource leak. (Push notifications)
- Fixed an issue with the push notifications not working on multi-tenant systems. (Push notifications)
- Fixed an issue with the sending of addParticipant and addParticipantMulti. (Push notifications)
- Fixed an issue with emailing the organizer when creating an instant meeting.
- Fixed an issue for missing DIDs on the meeting create action. (PBXWare Site manager)
- Made links in the meeting description on the email template clickable.

Features

- Ability to implement Custom ARI Applications.
- SMS Connector.
- Archiving: Added OneDrive to the list of supported archiving services.

Bug Fixes & Improvements

- Added the ability to implement Custom ARI Applications.
- Added the ability to authenticate with IMAP servers using the OAuth2 method.
- API: Added the 'Default IP' field validation for Trunks and fixed the validation for this field in GUI for Trunks and Extensions.
- API: Added a secret/password criteria validation.
- API: Added a missing option 'auto' for the field dtmfmode.
- API: Fixed an issue where IVR destinations and destination types would be deleted on edit.
- API: Fixed an issue where a request for service plan rates would return an empty result.
- API: Added the ability to enable/disable Ring Group configuration.
- API: Added the ability to fetch the Ring Group configuration.
- API: Added the option to control call recording for a specific extension.
- API: Updated docs.
- Archiving: Added the ability to upload archived chat messages and cdr files to the archiving storage.
- Archiving: Added OneDrive as a new service for archiving files.
- Archiving: Added the ability to download offloaded recordings from Amazon S3-like services when a custom domain is used.

- Auto Provisioning: Added support for Mitel 6930 and 6940 devices.
- Auto Provisioning: Fixed an issue with BLFs for Linkvil W610W device.
- Auto Provisioning: Added support for Fanvil X4U-V2, X5U-V2 and X6U-V2 devices.
- Auto Provisioning: Added support for the Fanvil Linkvil W610W device.
- Auto Provisioning: Fixed a BLF issue for Fanvil X5U-V2 and X4U-V2 devices.
- Auto Provisioning: Fixed an issue with the number of BLFs per page for Fanvil X4U-V2 and X5U-V2 devices.
- Auto Provisioning: Fixed an issue with the Remote Reboot option for Cisco and Polycom devices.
- Auto Provisioning: Added support for Yealink T44U and Yealink T44W.
- Auto Provisioning: Fixed a Hotdesking logout issue for Cisco 8851 devices.
- Auto Provisioning: Fixed an issue with displaying multiple extensions on the Grandstream GXP2170 device.
- Auto Provisioning: Fixed an issue with DSS Key start option for Yealink devices.
- Auto Provisioning: Fixed an LDAP search issue for Polycom devices.
- CDR: Added the option to store CDRs for up to 7 years on the File System page.
- CDR: Implemented the check space step before the database alter or partitioning process is started.
- Central Phone Book: Fixed an issue on MT systems where extensions would be accidentally removed from the Central Phonebook.
- Destinations: Added a popup warning message when destination permissions are changed.
- Embedded Documentation: Use the first language from the list of supported languages if no language is selected.
- Emergency Trunks: Implemented the option to configure the priority of emergency trunks on CC and Business edition.
- ERG: Added the Members Announcements section.
- Updated the EULA.

- Extensions: Fixed an issue where the DNS Server 2 field would not be grayed out when Auto Provisioning is set to No.
- Extensions: Added validation to the IP address fields.
- Extensions: Fixed an issue where changing the extension number would not be saved properly.
- Extensions API: Implemented the IP address field validation.
- Fixed an issue where call pickup would not work for calls to ERG if members have mobile devices.
- Features.conf: Added the ability to Pause/Unpause call recording on MT edition by using access codes.
- Monitor: Fixed an issue where the file system check would fail to detect that a resource was managed by archiving.
- Notes: Added a new page named Notes in the Settings section on Tenants and Master Tenant.
- Paging groups: Prevented creating other PBXware elements with the same number as paging groups and vice versa.
- Password Verification: Added the HTTP request timeout for option Check for breached passwords.
- Recording: Fixed an issue where conference call recordings could not be played on the Reports page.
- Reports: Added support for Microsoft Onedrive for recordings upload.
- SMS: Introducing the SMS Connector feature, which allows PBXware to interface with SMS providers that are not officially supported using API.
- SMS: Fixed an issue that would occur on saving Bulk Messages using a .csv file that is missing values.
- SMS: Fixed a Javascript error when selecting a .csv file in Bulk messages.
- SMS: Fixed an issue with special characters being received as ??.
- Translations: Updated translation files for French, Spanish, Portuguese and Portuguese (Brazil).

- Tenant and Extension Settings: Added a new option named Default Client Phone Selection.
- Translations: Updated French (fr_FR), Spanish (es_ES), Portuguese (pt_BR) and Portuguese (pt_PT) translation files.
- Trunks: Fixed an issue where Privacy: anonymous_id would be sent instead of Privacy: id when a PAI header is set.
- Trunks: Prevented invalid characters from being added to the SIP header.
- Voicemail: Added the ability to implement external MWI control via ARI.

New Endpoints



Fanvil X4U-V2



Fanvil X5U-V2



Fanvil X6U-V2



Fanvil Linkvil W610W



Mitel 6930



Mitel 6940



Yealink T44U



Yealink T44W

Contact Center Module

- CMP: Introduced the COMMSware Messaging Platform (CMP) as a customized solution, serving as a mediator between your omnichannel system and interactions with Facebook and WhatsApp.
- Omnichannel: Integrated Facebook and WhatsApp channels.
- Omnichannel: Implemented WhatsApp templates.
- Omnichannel: Implemented Geolocation Functionality for Livechat.
- Omnichannel: Integrated Business Contact Manager Service into PBXware.

Bug Fixes & Improvements

- Contact Center: Fixed an issue causing agent login failures, particularly when the agent extension is part of ERG.
- Dialer: Resolved an issue in dialer stats where recordings could not be played/downloaded.
- HubSpot: Updated API endpoint versions for HubSpot.
- Omnichannel: Addressed an issue related to Omni app restarts affecting the loading of customer info to tickets and implemented handling for updating contacts.
- Omnichannel: Modified logic to avoid notifying Omni on server save if it's not CC edition.
- Scheduled Reports: Fixed fatal errors occurring due to removed methods and resolved JSON formatting issues when the "did" filter was empty.

Meeting Module

Bug Fixes & Improvements

- Created a Database for meeting users.

Bug Fixes & Improvements

- Fixed an issue where CDRs for calls from gloCOM Desktop would not have recording files linked correctly.
- Fixed an issue where the table migration would fail when upgrading older systems to the 7.1 version.

7.1.0.1 - February 21, 2024

Features

- Fixed an issue where tooltip settings data mismatch would break javascript.
- Fixed an issue where outbound SMS was not working for the Bandwidth provider.
- Added syslog messages on pbxware start/stop/restart.

Meeting Module

- Implemented a fix for audio and chat history issues in a recurring meeting that was converted from a non-recurring meeting.
- Fixed an issue where Organizer could not join the meeting that was created from Online Self Care.
- Fixed an issue where a participant, added to the meeting in progress via PBXware Online Self Care, could not join the audio.

Features

- **Contact Center Omnichannel**
An all-in-one solution for managing customer requests and information sharing across multiple channels.
 - **Visitor App**
The key to seamless customer engagement on a website.
 - **Messaging Configuration**
Customize connections, create messaging queues, and apply tailored settings for a seamless omnichannel experience.
 - **Reports**
Unified reporting that compiles data from all channels for a comprehensive overview.
- **Two-factor authentication** for OSC and gloCOM users.
- **File System**
Introduced the ability to archive and delete chat message history.
- **Ray Baum's Act**
Implemented a set of features to comply with Ray Baum's Act.

New Endpoints



Snom D862



Snom D865



Yealink T31W



Yealink T34W

Contact Center Module

- Agent: Disabled changing the group name after it is saved once.
- Agent: Forbade the addition of pause reasons with the same code or name.
- Visitor App/LiveChat: Introduced as key to website customer engagement, offering features such as:
 - **Pre-chat Form**
Meet the customer with a pre-chat form.
 - **Basic Virtual Assistant**
Harness the power of chatbot assistance.
 - **File Sharing**
Enhance interactions by allowing customers to share files, documents, or images.
- Messaging Settings: Introduced to enhance users' communication capabilities across various channels: SMS, Email, and LiveChat.

Queues Configuration

- Introduction of assignment strategies with the capability to manage returning customers.
- Enhanced operation hours for improved service availability.
- Introduction of out-of-office messages to enhance the customer experience.

Chatbot Configuration

- Real-time preview for chatbot setup.

Channels Configuration

- LiveChat, SMS, and Email configuration

Settings

- Alert emails: Set up and configure security email alerts.
- Operation Times: Global operation time settings.
- "First response" and "Chatbot" timeout configuration
- Working Units - defining maximum agent workload with the respect of the effort that needs to be invested in handling requests on different channels.

- Agent Capacity Settings: Introduced a new set of options to customize agent capacity and workload within your business.
- Statistics/Reporting: Blended Agent & Queue Reporting that gathers statistics from all communication channels, creating a unified source for data analysis.
- Scheduled Reports: Reworked scheduled reports to accommodate omnichannel requirements.
- License Counter: Introduced a new page for users to manage and control their agent and supervisor licenses, as well as their omnichannel modules.

Meeting Module

- Added dial-in info to the calendar invite.
- Enabled dial-in to public meetings without the need for the participant's ID.

Bug Fixes & Improvements

- 2FA: Implemented Two-Factor Authentication for OSC and gloCOM users.
- 2FA: 2FA Improvements.
- Access Codes: Fixed an issue where dialing access codes '*303' and '*304' would not replace greetings for ERGs.
- API: Added the option to configure the 'Skip Invalid Selection Alerts' feature on IVR.
- API: Added the option to configure the visibility of call rating info in OSC.
- API: Implemented adding 'Dial Group' and 'ERG' as Destinations in IVRs.
- API: Added the ability to add, edit, and remove ERGs using API.
- API: Added the ability to configure the 'Preserve original Caller ID' setting for DID and 'Emergency Location Header' for Tenants and Trunks.
- API: Updated API documentation.
- API: Added the ability to fetch Archiving reports.
- API: Added the ability to fetch SMS & Bulk SMS reports.
- Auto Provisioning: Added support for Snom D862/D865 devices.

- Auto Provisioning: Resolved the Additional Config issue for Grandstream GXP2160 devices.
- Auto Provisioning: Fixed an issue related to Additional Configuration for Snom M300/M900 devices.
- Auto Provisioning: Added Speed Dial support for Grandstream devices.
- Auto Provisioning: Added support for Yealink T31W and T34w devices.
- Auto Provisioning: Fixed a reboot issue for Grandstream GXV3380 devices.
- Auto Provisioning: Fixed an issue with adding BLFs to the expansion module for Yealink phones.
- Call Forwarding: Fixed an issue that would occur when a user attempted to delete multiple Destinations at once.
- Caller ID: Implemented the ability to force Caller ID presentation in E.164 format.
- CDR: Added the ability to change the recording filename format to include “src” and “dst” column values.
- Channel Limits: Added a “Notification Email” field used for sending channel-limit related notifications.
- CRM: Created the option to enable/disable creation of new leads when a caller ID is unknown.
- DIDs: Added the ‘Name’ field to the DID configuration on a tenant level.
- DIDs: Implemented CSV download per Tenant.
- DIDs: Fixed an issue that would occur on multiple saves of existing SMS numbers on the CC Edition.
- DIDs: Fixed issues with editing E.164 numbers when SMS is enabled and the number exists.
- DIDs: Fixed an issue where a CSV upload would delete the SMS number from any DID with the same number.
- DIDs: Implemented the ‘Prioritize CLI routing’ option that overrides Operation Times rules on DID.

- E-mail notifications: Added the 'Limit exceeded' notifications for both local and remote channels on a Tenant level.
- Embedded Documentation: Addressed the branding issues and made sure that 'Server URL' and 'Token' fields are not available when 'Server Type' is set to "default".
- Embedded Documentation: Implemented the option to preserve the selected language on logout.
- Emergency services: Use emergency services from the master tenant if they are not set on a tenant level.
- ERG: Added the "Custom Ringtone" option to ERG.
- ERG: Added the 'Detect caller early hangup' option to ERG.
- ERG: Added the 'Leave When Empty' and 'Empty Destination' options to ERG.
- Extensions: Fixed an issue where the UAD Template would not be applied when adding multiple extensions using CSV upload.
- File System: Added the ability to archive and delete chat messages.
- Groups: Added the ability to restrict access to 'Destinations' and 'Editions & Modules'
- Groups: Renamed selections 'Destinations' and 'Editions & Modules' to 'Disable Destinations' and 'Disable Editions & Modules' respectively to prevent them from being disabled by default.
- IVR: Added the option to prevent the 'Invalid Selection' sound prompt from playing if no options were selected.
- IVR: Fixed an issue where ringtones would be played before the call entered the IVR even when 'Rings to Answer' was set to '0'.
- IVR: Added the "Invalid option" notification in IVR.
- IVR Statistics: Fixed an issue where the destinations assigned to '0' would not be displayed in the statistics.
- Languages: Added the Portuguese language.
- Limits: Fixed an issue where ERG limits would not be applied if set to '0'.
- Notifications: Added the "Update available" notification in the PBXware GUI.
- Implemented a fix that ensures that the 'Allow CallerID Within DID range' and 'Drop Anonymous calls' options are following priority levels.

- OSC: Fixed an issue where the advanced branding logo was not being shown in the OSC portal.
- OSC: Added the option to display call rating info in OSC.
- Protocols: Added the new fields to specify SIP transport for desktop and mobile applications.
- Ray Baum: Implemented Ray Baum's Act compliance features.
- Recording: Fixed an issue where Tenant to tenant calls were not being recorded on both sides.
- Ring Groups: Ensured that the Diversion header is sent when the last destination is an External Number.
- Scheduled Reports: Implementation of scheduled reports for OMNI statistics.
- Servers/Tenants: Removed '%' from allowed chars in the password warning message as it was previously disallowed on a functional level, and still is.
- SMS: Added support to assign multiple extensions to a single SMS number.
- SP: Display the SP administrator name in Action Logs on the synced system once a change has been made.
- Tooltip Service: Fixed a bug where embedded documentation would not work for an LDAP user.
- Touchless Provisioning: Fixed an issue where devices would not be shown on the non-MT systems until the server was resaved.
- Translations: Updated the French translation.
- Trunks: Implemented an option to add a prefix to emergency calls.
- Trunks: Implemented an update that prevents invalid characters from being entered in the SIP header.
- Voicemail: Implemented the SMS notification feature for new voicemails.
- Voicemail: Added '%EXT_NAME%' and '%TENANT_NAME%' as new variables for the "Voicemail blocked" email template.
- Voicemail Email: Fixed an issue where the sound file would not be sent as an email attachment.

Contact Center Module

- Database - Existing database tables have undergone modifications.
- Fixed an issue with the app crashing due to missing literals in the string.
- Removed the domain name validation for LiveChat.
- Resolved potential issues with emojis and other chars on message sync.
- Resolved the deadlock issue in the app queue with the “Share Wrap-up Time” option enabled.

Meeting Module

- Meeting: Add co-organizers as confbridge admin.
- Meeting: Allow participants to enter IVR without Participant ID for public meetings.
- Meeting: Make ignoo connection to meeting server more resilient.
- Meeting: DID's that were “Not Active” were being sent back.
- Meeting: Fixed an issue where Meeting events were not added to the calendar for the meeting organizer.
- Meeting: Fix for the meetings list not working.

Features

- Embedded Documentation.
- sipPROT v5 integration with PBXware.
- Shared DIDs for SMS.
- Oauth for SMTP Configuration.

Bug Fixes & Improvements

- Action Log: Fixed a fatal error issue on action log search.
- API: Fixed the issue where PHP notice would be displayed when pulling Operation Times list.
- API: Added ability to control SMS Trunks and SMS Trunks & Tenants using API.
- API: Fixed the issue where tenant codecs would not be set when tenant is created.
- API: Added option to set Incoming IP address range when editing trunk.
- API: Added ability to list and manage members for Enhanced Ring Groups.
- API Extensions: Added option to control the Skip the PIN Prompt option through API.
- Auto provisioning: Added ability to use custom UAD configuration for Flyingvoice devices.
- Auto provisioning: Added LDAP options for Grandstream devices.
- Auto provisioning: Fixed BLF issue for Grandstream devices.
- Auto provisioning: Fixed the issue with displaying extension's username on Snom Mxx devices.
- Auto provisioning: Added support for Snom M500.
- Auto provisioning: Added support for Avaya J179 device.
- Auto provisioning: Added support for Flyingvoice Flyingvoice FIP10, FIP12WP, P10P, P23GW.

- Auto provisioning: Added ability to manage BLF button type on Yealink devices.
- Auto provisioning: Ability to manage BLF/DSS keys on Yealink devices.
- Auto provisioning: Fixed several minor bugs related to the Auto provisioning.
- Auto provisioning: Added ability to use UAD Additional config for Poly Edge B devices.
- Call Forwarding: Added ability to change the default timeout value for call forwarding on tenant level when enabled via access code.
- CDR: Added the option to filter CDRs by recorded calls.
- CRM: Optimization work done to speed up Hubspot.
- CRM Bullhorn: Added login with redirect URI for token generation and better phone search.
- CRM: Fixed the PHP issue that caused CRM routing to fail.
- CRM: Optimized CRM routing speed.
- CRM ZOHO: Fixed the issue with OAuth token expiry.
- Dashboard: Fixed the issue where warnings would pop-up on Dashboard.
- DID: Implemented a feature to remove deleted destination from the DID destination value.
- Email Template: Added variable %FULLNAME% to Emergency Call Email Template.
- Embedded Documentation: Added support for multiple languages.
- Emergency services: Use emergency services numbers set on master tenant in case they are not set on tenant level.
- ERG: Fix issue where directed call pickup would not work for a member on mobile device.
- ERG: Exposed all the ring strategies available in Queues in ERGs.
- ERG: Added ability to auto create ERG from existing queues.
- ERG Statistics: Fixed the issue where ERG statistics would ignore member selection and display the stats for all members.
- ES Caller ID: Added Default Caller ID and Default Privacy options.

- Extensions: Fixed the issue where picking up calls from extensions registered with a mobile app would not work.
- Extensions ES: Fixed the issue where BLF page would be broken when language is set to French.
- Extensions channel limit notification: Implemented the fix to ensure email notification is being sent to the correct email address.
- Extensions: Invalid characters are now automatically removed from MAC Address entries.
- Groups: Created permissions to prevent site users from creating and deleting extensions.
- Incoming/Outgoing Limit Email Template: Added variable for tenant code.
- IVR: Add IVR tree destination to CRM routing, DID, IVR as well as their APIs.
- IVR: Added “Invalid option” sound prompt which will be played to caller if invalid selection is made in the IVR.
- Local calls: Fixed the issue with local calls being sent to an extension on a different tenant even if tenant to tenant calls were disabled.
- Meeting: Starter package is automatically assigned to new extension.
- Meeting: Fixed the issue with date picker not displaying calendar if French language is used.
- Monitor page: Added ‘Select All’ button on Monitor Page.
- Monitor Page: Fixed the issue with live calls refresh.
- Operation times (OSC): Fixed the issue with CSV Upload.
- OSC login issue with 2FA: Fixed the login issues with email addresses starting with number.
- OSC: Resolved the fatal error issue in OSC on SMS CSV download.
- OSC: Resolved the issue where error would be displayed in dashboard.
- OSC: Removed the Embedded Documentation from OSC VM features.
- PBD: Fixed the issue with access codes when PIN Based Dialing is used.
- Searching sounds: Fix search for sounds under IVR tree.

- sipPROT: Added sipPROT to PBXware.
- Statistics: Filter missing in ERG statistics for Business edition.
- SMS: Added OZSMS SMS provider.
- SMS: Add ability to assign multiple extensions to a single SMS number.
- SMS: Introduced ability to enable SMS service on all tenants at once through the PBXware license.
- SMTP: Introduced Oauth for SMTP configuration.
- SP Edition: Disabled 2-step verification for SSO login.
- Tenants: Add Default Fax Caller ID field.
- Tooltips: Enabled tooltips on specific top-level pages and added the option to change the tooltip-cursor color from branding page.
- Translation: Fixed the issue with adding additional configuration in the Protocols when French language is being used.
- Voicemail: Resolved the issue with playing voicemails if Caller ID contained a + character.
- Voicemail: Improved mailboxes search.
- Voicemail Notification: Added functionality to continue to call the extension/destination until the call is rejected or voicemail is listened to.
- Voicemail: Fixed the issue with playing voicemail from the OSC.
- Voicemail: Added new variables to a voicemail email template.

New Endpoints



Flyingvoice FIP10



Flyingvoice FIP12WP



Flyingvoice P10P



Flyingvoice P23GW



Avaya J179



Snom M500

Meeting Module

- Meeting: Implemented add/remove feature for co-organizers.
- Meeting: ical meeting invite improvements.

CONTACT BICOM SYSTEMS TODAY

to find out more about our services



Bicom Systems (USA)

2719 Hollywood Blvd
B-128
Hollywood, Florida
33020-4821
United States
Tel: +1 (954) 278 8470
Tel: +1 (619) 760 7777
Fax: +1 (954) 278 8471
sales@bicomsystems.com



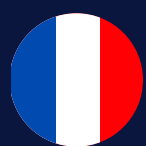
Bicom Systems (CAN)

Hilyard Place
B-125
Saint John, New Brunswick
E2K 1J5
Canada
Tel: +1 (647) 313 1515
Tel: +1 (506) 635 1135
sales@bicomsystems.com



Bicom Systems (UK)

Unit 5 Rockware BC
5 Rockware Avenue
Greenford
UB6 0AA
United Kingdom
Tel: +44 (0) 20 33 99 88 00
sales@bicomsystems.com



Bicom Systems (FRA)

c/o Athena Global Services
Telecom
229 rue Saint-Honoré – 75001
Paris
Tel : +33 (0) 185 001 000
www.bicomsystems.fr
sales@bicomsystems.fr



Bicom Systems (ITA)

Via Marie Curie 3
50051 Castelfiorentino
Firenze
Italy
Tel: +39 0571 1661119
sales@bicomsystems.it



Bicom Systems (RSA)

12 Houtkapper Street
Magaliessig
2067
South Africa
Tel: +27 (10) 0011390
sales@bicomsystems.com

Follow us



www.bicomsystems.com