



Australian Government
Department of Defence

Australasian Information Security Evaluation Program

**Maintenance Report Supplementing
Certificate Report 2016/99**

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Chapter 1 – Introduction

1.1 Purpose

This document is an addendum to the Certification Report 2016/99 (Ref [1]) that describes the relevant baseline evaluation of the Soprano GAMMA v3.0.9 product.

The purpose of this Maintenance Report is to describe the status of the assurance continuity activities undertaken by Soprano Design Pty Ltd for the Soprano GAMMA v4.1 against the requirements contained in the Assurance Continuity: CCRA Requirements (Ref [2]).

Soprano Design Pty Ltd provided information about their assurance continuity activities in the form of an Impact Analysis Report (IAR) (Ref [5]). The IAR lists the changes made to the certified TOE, the evidence updated as the result of the changes and the security impact of the changes.

This report should be read in conjunction with:

- a) The certified TOE's Certification Report (Ref [1])
- b) The certified TOE's Security Target - Soprano GAMMA, Version 1.1, 29 April 2016 (Ref [3]) which provides a full description of the security requirements and specifications that were used as the basis of the baseline evaluation
- c) The maintained TOE's Security Target Security Target - Soprano GAMMA 4.1, Version 1.0, 7 December 2017 (Ref [4])

1.2 Identification

Table 1: Identification Information

Item	Identifier
Impact Analysis Report	Impact Analysis Report – Soprano GAMMA ISSX3028-IAR v1.1, 9 February 2018
Evaluation Scheme	Australasian Information Security Evaluation Program
Maintained TOE	Soprano GAMMA v4.1
Developer	Soprano Design Pty Ltd
Certified TOE	Soprano GAMMA v3.0.9
Security Target	Security Target - Soprano GAMMA, Version 1.1, 29 April 2016
Maintained Security Target	Security Target - Soprano GAMMA 4.1, Version 1.1, 1 March 2018
Certificate Number	2016/99

Table 1 provides identification details for the evaluation. For details of the TOE description refer to section 2.6 of the Security Target (Ref [4]).

Chapter 2 – IAR Summary

2.1 Description of changes

The Impact Analysis Report (IAR) indicated that the following changes and updates have been made to the Soprano GAMMA v3.0.9 product since its certification in May 2016.

Document	Description
SOPRANO GAMMA Product Release Notes v3.1	Features/Functions <ul style="list-style-type: none"> We've added a typing indicator! See when your message recipient is typing a response directly in the app. Introducing the image preview gallery - when previewing images in a conversation, you can now swipe left and right through the images that have been shared. We've also added image zoom using double tap or pinch actions, so you can see the detail up close! [Android Only] We've updated the behaviour of the app icon: it won't display a notification when the app is not active or connected. [iOS only] Removed the square crop for image sending. PLEASE NOTE: This means that images are now sent immediately upon selection (same as Android functionality).
	Bug fixes <ul style="list-style-type: none"> Fixed a bug which may cause blank message bubbles with semi-loaded message indicators. Fixed a bug in the way notifications and read receipts work in active chat screens. Fixed a bug that caused the keyboard to minimise after a message was sent in the chat screen. [iOS only] Fixed a bug that may block an image from being saved from the image preview screen. [iOS only] Fixed a bug that may cause difficulty in registering the app due to the keyboard being activated.
SOPRANO GAMMA Product Release Notes v3.2	PIN <ul style="list-style-type: none"> Updated the PIN screen to a new look input wheel Updated the PIN functionality - GAMMA App PINs can now be between 4-8 characters and alphanumeric! Added the ability to skip using a PIN for the app. A user can choose to then create a PIN at a later date if they wish, or use the app without a PIN. [iOS Only] Added the functionality to change your PIN within the app.

Document	Description
	<p>Workflows</p> <ul style="list-style-type: none"> • Introducing the new Workflows tab - all pull workflow forms are now displayed in the Workflows tab for easy access. • Updated the Workflow Message default CSS to a fresher, cleaner look. • Updated functionality in Workflow Messaging to support formulae. • Updated the camera icon to an attachment icon for A2P accounts that have workflow messages available to the user. • Updated the framework for Workflow Message icons to lay the groundwork for changes to be made in coming releases.
	<p>Fallback Notifications</p> <ul style="list-style-type: none"> • Updated Fallback Notifications - there is now a choice of SMS Fallback, Push Notifications or no notifications for offline users. The use of push notifications is currently pending MEMS changes to be implemented. While supported in the app, they currently cannot be utilised. • Enhanced Notifications and Fallback for Muted conversations - muting a meeting room or contact conversation will now mute fallback notifications when the user is offline. • Enhanced the server side Fallback Logic for improved processing of delivery receipts and fallback notifications.
	<p>[Telstra Only] CMP</p> <ul style="list-style-type: none"> • Created a CMP level license for access and use of the app for Telstra. This license will only show contacts that are available in your company if they exist in your device's address book.
	<p>[AT&T Only] AT&T App Rebrand</p> <ul style="list-style-type: none"> • Rebranded the app to match AT&T guidelines. • [Android Only] Fixed a bug which may cause the app to crash if an ampersand is used in a meeting room name. • [iOS Only] Fixed a bug that allowed the same contact to be added to a meeting multiple times, causing the app to crash for that user.

Document	Description
	<p>General Optimisations and Bug Fixes</p> <ul style="list-style-type: none"> • Improved accessibility of the app by implementing various optimisations for users accessing the app in Accessibility Mode. • Various visual optimisations have been applied to improve the user experience within the app. • The GAMMA contact list can now query the device address book to obtain a contact's name or avatar to display within the app if this information is missing from the GAMMA vcard. • [Android Only] Improved the handling of Toast messages within the app. Toast messages are now removed more efficiently. • [Android Only] Fixed a bug which may cause entry of the incorrect PIN due to a shifting keypad display. • [Android Only] Enhanced the New Message screen to improve the way added contacts are displayed. • [Android Only] Fixed a bug which may cause a message to not be displayed if a signature fails.
<p>SOPRANO GAMMA Product Release Notes v3.3</p>	<p>Offline Messaging</p> <ul style="list-style-type: none"> • You can now compose and send messages while offline: GAMMA will now store your messages in a pending status and will send them automatically when you get back online. • Draft messages will now be stored in the message compose area if you leave the screen before pressing "send". • If you lose connectivity momentarily while attempting to send a message, GAMMA will now attempt to reconnect and send the message once before showing the Failed status and resend button, which previously appeared without any resend attempts. • Muting your meeting room or conversation will now also stop the SMS or push notification fallback alerts when you are offline. • We improved the server-side performance and fallback notification logic for improved processing of delivery receipts and fallback notifications.

Document	Description
	<p>Workflows Phase II</p> <p>Several improvements have been made to the GAMMA mobile app workflow messaging screens, including:</p> <ul style="list-style-type: none"> • You will now see a dedicated Workflows button in the chat bar for A2P contacts, making it easy to request workflows directly from the A2P conversation. • Workflow messages are now displayed as threaded “mini-conversation” to link workflow forms with their related responses for ease of accessing the workflow history on your device. This threaded view is available in the GAMMA app only at this stage. • The new workflow “mini-conversation” threads will have a call to action of “requiring attention” if the user’s input is required – this will display the same way a new message displays for the user. Each workflow “mini-conversation” will appear in the conversation screen at the time of the most recent message in the “mini-conversation” amongst any other messages, along with a timestamp showing when it arrived. • Workflow responses may now sent to the server in a more structured format, making it easier to import data captured from responses. This must be enabled manually when creating the workflow message, and will only allow for structured responses to be received from devices running GAMMA 3.3, though earlier versions of the app will continue to return text in the same format as today. The response will generally follow the structure {<gamma.id>: <gamma.value>}. If you are returning the workflow information to a URL, it will be passed through in the same format as it was received.

Document	Description
	<p>Bug Fixes</p> <ul style="list-style-type: none"> • Fixed a bug that may cause some incorrect characters in the Spanish and Portuguese versions of the application. • [ANDROID ONLY] Fixed a bug which may cause GAMMA to crash on Android. • [ANDROID ONLY] Fixed a bug that may cause the app to disconnect randomly. • [ANDROID ONLY] Fixed the display of "No Network Connection" to display to the screen. • [ANDROID ONLY] Fixed a bug that may cause the registration screen to be displayed incorrectly. • [ANDROID ONLY] Fixed a bug that may cause text displayed on the passcode change screen to be truncated. • [ANDROID ONLY] Fixed a bug that may cause the app to crash when attempting to register with an email key. • [ANDROID ONLY] Fixed a bug that may cause the app to go offline when the status of Invisible is selected. • [iOS ONLY] Fixed a bug that may cause a push workflow message to appear without any notification being displayed to the user. • [iOS ONLY] Fixed a bug that may cause the keyboard to cover the email registration key field. • [iOS ONLY] Fixed a bug that may cause the Workflow tab to not update correctly upon first load. • [iOS ONLY] Fixed a bug that may cause an IP call to fail. • [iOS ONLY] Made the passcode entry boxes not clickable so they can only be filled in using the pinwheel. <p>[tracking only] Openfire GCM certificate</p> <ul style="list-style-type: none"> • Resolved the GCM certificate issue that causes intermittent issues with Android push notifications. <p>[tracking only] Openfire Clustering</p> <ul style="list-style-type: none"> • The Openfire server configuration has been optimised to ensure efficient, redundant operation. <p>[tracking only] Backend Updates</p> <ul style="list-style-type: none"> • Updated the codebase to ensure that any parts of the app which can be customised for a carrier build are set up as variables or resource packs to speed rebrands. • Updated OpenFire to correctly complete the user delete process when a request is received from the MEMS server. • Updated OpenFire to use the MEMS messageId as the threadId for A2P messages. • [Telstra and AT&T Only] The About URLs have been amended to reflect the correct product names. • [Telstra and AT&T Only] Implemented the mechanism to allow branded fallback notifications.

Document	Description
SOPRANO GAMMA Product Release Notes v3.5	<p>Improved Passcode Policy & New 'FORGOT PASSCODE' Link</p> <ul style="list-style-type: none"> • 'Forgot Passcode' link has been introduced on the passcode screen. The link takes the user to a clear information page and instructs to reinstall the app to create a new passcode. • Updated label above the passcode wheel, stating clear action required i.e. Enter the passcode to login. • Introduced admin control over passcode policy capabilities that allows three options for the passcode policy: User-Selected (default), Mandatory or None. The setup can be performed on MEMS web portal. Default passcode policy i.e. User-Selected makes it optional for user to select passcode and if set, requires a passcode between 4-8 characters in length.
	<p>Advanced Workflows Features</p> <ul style="list-style-type: none"> • Capability for user to send an image or audio message in the workflow thread. These responses can be previewed or pulled out as a report from the MEMS web portal from the 'Reports' tab.
	<p>Enhanced Microphone Tray & Audio Layout</p> <p>Several improvements have been made to the GAMMA Audio functionality, including:</p> <ul style="list-style-type: none"> • New microphone tray has been introduced with improved user interaction for sending audio messages. • The tray displays clear instructions for recording the audio, how to send or cancel it and the timer for the recording. • Improved display for audio messages showing total clip duration, a timer for playback and a progress bar.

Document	Description
	<p>Updated Settings, Avatar Display & Notifications</p> <ul style="list-style-type: none"> • Updated badge icon on the app displays the number of unread messages even when the app is closed or if the fall-back SMS has been sent. In Android, there is a limitation to this functionality with handsets other than Sony, HTC and Samsung. • Individual notifications are sent for each message received along with a constant notification displaying the connection status. • Meeting avatar layout updated for better display three or more users in a meeting. When the meeting consists of more than three people, two avatars will be shown with an additional count in the centre location to indicate the number of participants. • Embedded presence, encryption and the location icons available in the contact Avatar. • Accessibility compliance for status indication of a contact. • [ANDROID ONLY] Direct access of 'Profile' option in the main menu is available. • [ANDROID ONLY] New 'Change Photo' option available in the Profile settings of the app that provides user with options to - take photo, choose photo, remove photo and cancel. • [iOS ONLY] Edit label in the main menu has been updated to 'Profile' to better reflect the functionality.
	<p>Improved Consistency Between Android & iOS</p> <ul style="list-style-type: none"> • Delivery status pie in meeting rooms is better visible and consistent across both iOS and Android. • A long press and hold on workflows in Android is now in sync with iOS providing only the option to 'Add Favorites'. Previous options ('PullWorkflow' in android) have been removed to prevent confusion for the user.
	<p>Enhanced Connectivity & Reconnection Timers</p> <ul style="list-style-type: none"> • Improvements in connectivity with an update in reconnection timer. The reconnection will be attempted every 10 seconds for the first minute of the app and after that, it is increased to attempt every 60 seconds. • Implementation to force a check for connectivity to server against a configurable time on any user interaction within the application. The default time is set to 5mins. • The reception of a push notification from the server will also trigger a reconnect to the server.
	<p>Bug Fixes</p> <ul style="list-style-type: none"> • Update to resolve reported runtime exception error 'Unable to stop service.com'. • Automatic clear if incorrect passcode is entered making it ready for the next attempt.

Document	Description
SOPRANO GAMMA Product Release Notes v4.0	<p>Features</p> <ul style="list-style-type: none"> • Repeat Alerts - Repeat Alerting is an ability of GAMMA v4.0 to trigger a repeating notification to the recipients in a defined and timely manner. Repeat alert beeps until the message is moved from 'Delivered' to 'Read' state. A user can enable Repeat Alert while sending an A2P message, define the validity period and set frequency of alerts. The feature provides GAMMA users a flexibility to ensure that urgent messages are not missed by the recipients. • Require Acknowledgment - Require Acknowledgment provides a mechanism to send back active acknowledgment to the sender for indicating that the message has been read. It provides efficient way of tracking the status of important messages. If 'Require Acknowledgment' is enabled by a sender while sending the A2P message, recipient will be presented with an 'I Acknowledge' button. On tapping the button, the status is changed from Read to Acknowledged. • Filtering Messages - New filter icon is presented on the top of the conversation window allowing users to filter and choose from viewing all messages or workflows or the messages that 'Require Acknowledgment'. <p>Enhancements</p> <ul style="list-style-type: none"> • Security enhancements to ensure secure representation of GAMMA as a background app. This enhancement blacks out the GAMMA snapshot when it runs in the background. • Enhanced DNS look-up for improved support of IPv6 protocol. • Updated and clearer privacy warnings for user-disabled access to contacts, camera and microphones. • We've added multiple UI enhancements and squished some bugs to ensure an improved user experience in GAMMA v4.0.
SOPRANO GAMMA Product Release Notes v4.1	<p>Features</p> <ul style="list-style-type: none"> • We've introduced Remote wipe as an advanced deletion method in GAMMA v4.1 mobile app. Remote wipe the message to delete it from recipient's devices along with sender's. Sender has the capability to delete the message from all the devices where that message exists with a click of a button. • New Message Expiry option provides you an ability to vanish your message after a user-defined time limit. Defined time can be set relative to sent, delivered or read status of the message. Users have the flexibility to define intervals in seconds, minutes, hours and days. • New GAMMA User Details option in GAMMA web-portal - Login anytime to check user-records displaying user names, date when they registered on GAMMA, current GAMMA version they are using and the last app connection time. • GAMMA portal has the capability to run a User-Duplication Check that alerts the administrator if mobile number is already in use with another GAMMA account.

Document	Description
	<p>Enhancements</p> <ul style="list-style-type: none"> • Enhancement in GAMMA v4.1 will show you updated PIN entry keyboard with user-friendly native keyboard. We also display a feedback message on adding a contact as a favourite. • Improved alerts in registration process for GAMMA when provisioning through short codes for Android devices. Message alert reminds the user to enable SMS Premium on the device in order to accomplish the registration. This is only applicable to countries using short codes for sending GAMMA registration SMS. • Now click on dial icon in the app to instantly switch to the phone-dialer and make a call. We've also updated message notifications so that tapping on them takes you to that specific message linked with tapped notification. • We've added multiple UI enhancements and squished some bugs to ensure an improved user experience in GAMMA v4.1.

The impact of each of the changes described above have been assessed and concluded that no changes have been made to the Security Functional Requirements (SFRs) claimed in the Security Target.

2.2 Regression testing

For each release listed above, the developer performs a suite of regression tests - both iOS and Android versions of the app are rigorously tested utilising version-specific prioritisation. That is, test cases with respect to the changes made in the newest version of software are completed first before a complete set of regression testing is completed. These tests include:

- A2P (encrypted and non-encrypted – including response back to the platform)
- P2P (encrypted and non-encrypted)
- Individual Contact Messaging
- Group Messages
- Meeting Room Messages
- Interactive Messages
- Online Notifications
- Offline Notifications
- PIN Policy
- Message deletion, remote wipe & Expiry.

Each round of regression and function-specific testing must pass before the updated version of the TOE is released for general use.

For each of the versions listed in the table above, confirmation was provided that the TOE underwent the full suite of testing with no failures.

All test passed successfully. The changes caused no security impact upon the vulnerability analysis. The nature of the changes leads to the conclusion that they are classified as minor changes. All regression testing was performed by the developer as no changes were made to security-relevant functions.

2.3 Documentation Updated

The certified Security Target was Soprano GAMMA, Version 1.1, 29 April 2016 v1.0. This document has been replaced with Security Target - Soprano GAMMA 4.1, Version 1.1, 01 March 2018.

The ST has been updated to reflect the change in TOE version (Cover page, sections 2.1, 2.2 and header of each page) and updated sections 7 and 8.6 to reflect the updated PIN policy.

The Common Criteria Guidance for Soprano GAMMA (Soprano GAMMA v4.1, version 1.0, dated 01 March 2018) (Ref [6]) has been updated to Section 3.3 and 4.1 to note that the option to disable PIN should not be enabled at any time.

Chapter 3 - Assurance Continuity

3.1 Assurance Continuity Result

After consideration of the Impact Analysis Report (IAR) provided by Soprano Design Pty Ltd, Australasian Certification Authority (ACA) has determined that the proposed changes are minor. The ACA agrees that the resultant change in the TOE can be classified as minor and that certificate maintenance is the correct path to continuity of assurance. The ACA agrees that the original assurance result is maintained for the Soprano GAMMA v4.1 product.

References and Abbreviations

A.1 References

1. Certification Report 2016/99, 17 May 2016, Version 1.0, Australasian Certification Authority.
2. Assurance Continuity: CCRA requirements, Common Criteria Interpretation Management Board, CCIMB-2012-06-02, Version 2.1, June 2012.
3. Security Target - Soprano GAMMA, Version 1.1, 29 April 2016 v1.
4. Security Target - Soprano GAMMA 4.1, Version 1.1, 01 March 2018
5. Impact Analysis Report Soprano GAMMA ISSX3028-IARv1.1, 9 February 2018
6. Common Criteria Guidance - Soprano GAMMA 4.1, GAMMA-4.1-AGD 1.0, version 1.0, dated 01 March 2018.

A.2 Abbreviations

ACA	Australasian Certification Authority
AISEP	Australasian Information Security Evaluation Program
CC	Common Criteria
CCRA	Common Criteria Recognition Arrangement
ASD	Australian Signals Directorate
IAR	Impact Analysis Report
SFR	Security Functional Requirement
TOE	Target of Evaluation