SeniorConnect Project Release Plan_v2

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SeniorConnect Project Team

Nanyang Technological University

50 Nanyang Avenue

Singapore 639798

Revision History

Name	Date	A*MD	Reason For Changes	Version
Wang Siqi	14/10/2015	A, M	Draft release plan	V1.1
Wong Way-ne	19/10/2015	M	Corrections and clarification	V1.2
Wang Siqi	22/10/2015	A, M	Add risk section draft	V1.3
Wong Way-ne	23/10/2014	A, M	Completed risk section	V1.4
Ma Xiaoxue	25/10/2014	M	Finalize release plan	V2

^{*}A - Added M - Modified D – Deleted

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Software Requirement Specification Approvals:

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1. Purpose

This release plan (RP) aims to describe the expected functionality to be implemented before the SeniorConnect system is deemed to have progressed significantly to be considered as a new version. It also describes the planned dates for release.

The intended audience of the SeniorConnect project release plan is the system development lead, requirements lead, release manager, configuration manager, QA manager, governance bodies, sponsors, and any other member of the project team who will be participating in the following activities:

- 1. Strategy Reviewing and Approving
- 2. Software Development and Testing
- 3. Documentation
- 4. User Training
- 5. Product Releasing

2. Referenced Documents

The following documents have been referenced by this release plan.

Document Name	Document Version	Insurance Date
PPRO_FUN.2	2.0	08/09/2015
SRS_FUN.3	3.0	22/09/2015
SQAP_FUN.3	3.0	30/09/2015
RMP_FUN.2	2.0	30/09/2015
PP_FUN.2	2.0	22/09/2015
DMA_DES.2	2.0	22/10/2015

3. Assumptions, Dependencies, Constraints and Risks

3.1. Assumptions

- Team size will remain 6 persons. At least 3 persons can be fully dedicated to implementation of the system and 2 dedicated to QA processes.
- System will be mainly developed in HTML and JavaScript for the front-end design.
 Python is used to implement the server. The final mobile platform application is built with the Ionic framework.
- Each member in the engineering team is able to code 220 lines of code per week, estimated using the COCOMO Model.
- There is no unexpected cost increase in labor, hardware acquisition or legal proceedings.
- Cash flow from sponsors and investments will arrive on schedule.
- The requirements of the project will not change dramatically after requirement elicitation.
- All releases do not break any policies of the App Store / Play Store.

3.2. Dependencies

- Implementation will begin only after the requirement and design documents are reviewed and approved by the QA team.
- Server implementation depends on availability of hardware.
- Mobile platform application implementation depends on the software development kit of the mobile operating system and availability of plugins and hardware.
- Mobile end design depends on the overall architecture design.
- Testing processes depend on each corresponding release.
- Each release depends on previous release in terms of functionality.
- All releases depend on QA team's approval and Product Manager's approval.

3.3. Constraints

- Budgets should guarantee normal operation involving at least 5 people.
- All releases shall meet the requirements of functionality and deliverables as stated in the Project Schedule.

• Correct functional performance is constrained by the uptime of the server.

3.4. Risks

This section describes all the risks associated with release of SeniorConnect product in accordance with this Release Plan. It also identifies all adverse impacts to stakeholders during the release cycle, as well as a mitigation strategy for each identified risk that describes specifically the fallback position if a risk is realized. This information is also documented in the project's Risk Management Log and managed in accordance with the Risk Management Plan.

Risk Description	Priority	Strategies
Organizational restructure The organization is restructured so that different management personals are responsible for the project.	High probability of occurrence; High seriousness of effects	Prepare briefing presentation and detailed document for management showing how the project is progressing and making a very important contribution to the goals of the business. Keep effective and frequent communication with the new management team.
Insufficient manpower It is impossible to recruit staff with the skills required for the project.	High probability of occurrence; High seriousness of effects	Alert customer timely of potential difficulties and the possibility of delays; investigate buying-in components efficiently.
Underestimated budget Team may underestimate the cost beforehand and thus do not have enough budget during the development.	High Moderate probability of occurrence; High seriousness of effects	The team should have a detailed budget. Instead of having a general one, the budget should be broken down into small components and each component should be analyzed and forecasted with reasonable cost.
Staff Leave Experienced staff may leave the project before it	High Moderate probability of occurrence; High	Reorganize team so that there is more overlap of work and people therefore understand each other's

is finished.	seriousness of effects	jobs.
Staff Absence Key staff fall ill at critical times in the project.	High Moderate probability of occurrence; High seriousness of effects	Reorganize team so that there is more overlap of work and people therefore understand each other's jobs. If the situation is urgent, invite experienced staff from other teams to contribute.
Requirements unstableness Changes to requirements that require major design rework are proposed.	High Moderate probability of occurrence; High seriousness of effects	Derive traceability information to assess requirements change impact, maximize information hiding in the design.
Technology unreliability Software components that should be reused contain defects which limit their functionality.	High Moderate probability of occurrence; High seriousness of effects	Replace potentially defective components with bought-in components of known reliability.
Low performance The database used in the system cannot process as many information per second as expected.	High Moderate probability of occurrence; High seriousness of effects	Investigate the possibility of buying a higher- performance database.
Unrealistic schedule The time required to develop the software is underestimated.	High probability of occurrence; Tolerable seriousness of effects	More research and analysis should be taken before the start of development. All team members should have discussion together about the schedule, to make sure appropriate plan have been made. Investigate buying components, investigate use of a program generator.

Gap between Requirements And Developed Functionality It is possible that the	High High probability of occurrence; Tolerable seriousness of effects	make sure appropriate estimation about the software size have been made. Investigate buying in components, investigate use of a program generator. Requirements should be realistic and appropriate. Thus more analysis and discussion should be taken beforehand. Requirement documents should be reviewed
functions developed by the team cannot match the requirements elicited beforehand.		regularly during the development to ensure that crucial requirements are matched.
Integration failure WebRTC (Real-time Communication) tools cannot be integrated.	High probability of occurrence; Tolerable seriousness of effects	More research and analysis should be taken before the start of development. Experienced developers should examine the integration ability of WebRTC. If the result is not favorable, use alternative tools.
Overestimating capabilities The rate of defect repair is underestimated.	Intermediate Moderate probability of occurrence; Tolerable seriousness of effects	Replace potentially defective components with bought- in components of known reliability.
Human Error	Intermediate	In order to avoid mistakes, every team member should do a review

Team members may make Moderate probability for the work done. Peer review some mistakes accidently of occurrence; should also be adopted, especially during the whole process Tolerable seriousness for crucial part of the project. of the project. These of effects mistakes may cause data inconsistency, system errors and project delay. **Infeasible requirements** Intermediate Emphasis the meaning of requirements changes by onsite Customers fail to Moderate probability demo, onsite trial and other understand the impact of of occurrence; methods that let customers have a Tolerable seriousness requirements changes. real experience using the product. of effects **Out-of-date technology** Intermediate Before the project starts, technology used should be The underlying Moderate probability examined with extensibility and of occurrence: technology on which the future trends. If new technology or Tolerable seriousness system is built is versions supersedes the used superseded by new of effects technology, examine the technology. probability for replacing using a cost-benefit analysis. Intermediate **Overestimating** More research and analysis should efficiency be taken before the start of Moderate probability development. Experienced Real-time Communication of occurrence: developers should examine the Tolerable seriousness tools which support the functionalities of WebRTC. If the of effects project do not perform as result is not favorable, use anticipated alternative tools. Unrealistic timeline Intermediate Investigate the reasons that cause the delay. Send more experienced Specifications of essential Low probability of staff to speed up the interface interfaces are not available occurrence; High specification process. on schedule. seriousness of effects

Financial problem Organizational financial problems force reductions in the project budget.	Intermediate Low probability of occurrence; High seriousness of effects	Prepare briefing presentation and detailed document for management showing how the project is progressing and making a very important contribution to the goals of the business.
Hardware failure Hardware that is essential for the project will not be delivered on schedule.	Intermediate Low probability of occurrence; High seriousness of effects	Keep in contact with suppliers about delivery details and show great emphasis on the timely delivery. If the hardware is not delivered online, reschedule the hardware-relevant procedures to minimize the impact.
Organization revolution There will be a change of organizational management with different priorities.	Low Low probability of occurrence; Tolerable seriousness of effects	Prepare briefing presentation and detailed document for management showing how the project is progressing and making a very important contribution to the goals of the business.
Inadequate training Required training for staff is not available.	Low Low probability of occurrence; Tolerable seriousness of effects	Currently unavailable due to low priority
Tool failure The data generated by Real-time Communication tools is inefficient.	Low Moderate probability of occurrence; Low seriousness of effects	More research and analysis should be taken before the start of development. Experienced developers should examine the functionalities of WebRTC. If the result is not favorable, use alternative tools.

4. Release Approach

The SeniorConnect Project Release Plan describes the necessary activities to ensure the project's product functionality for its end-users according to product plan.

4.1. Rationale

The SeniorConnect Product is developed based on the agile development model. Since functionalities are implemented incrementally, several versions of the product will be released. Each release will ensure functionalities in accordance to the release plan.

4.2. Release Strategy

For the first four months, the GruFamily team will implement and deliver an initial version with basic functions that is ready and robust for use. During this period, the server and other accessories will be setup and mobile application user interface will be designed and settled down upon approval.

The second release will take two months after the first release. The most important functions will be implemented and bugs found after the first release will be fixed.

Other functionalities under further development will be implemented and released in other releases on monthly basis. There will be four more releases before project ends. In each release, new functionalities will be implemented as scheduled and bugs from last release will be fixed. All functions will be released before project ends. The last release aims to reach a bug free version with full functionalities.

4.3. Release Content

Documentation and functionalities of each release version are specified as following.

4.3.1. Release Version 1.0

In this release, the front-end development team shall finish all the UI design for all functions specified in SRS. For deliverable function in this release (V1.0), the UI should satisfy the UI requirements and with full necessary details. For the deliverable in future release, the layout of UI and codebase shall be done. Details and actual implementation can be implemented in future work.

Communication standards between mobile client and web server shall be defined. Server design shall be settled and not allowed to change. First version (V1.0) of web API shall

be implemented. Server shall be able to receive requests and function well in a low rate of requests. Occasional request misses are allowed.

Function Deliverables Table V1.0

Section in SRS	Function Description	Remarks
	Registration	Fully implemented as described in SRS V1.3 section 6.1.
6.1		Release Sections:
		6.1 Registration
		Fully implemented as described in SRS V1.3 section 6.2.
6.2	Login/Logout	Release Sections:
		6.2.1. Login
		6.2.2. Logout
		Partially implemented as described in SRS V1.3 section 6.3.
		Release Sections:
	Chat	6.3.1.1 Message
		6.3.1.1.1 Send Voice Message
6.3		6.3.1.1.2 Listen to a Voice Message
		6.3.1.1.3 View Chat History
		Exceptions:
		6.3.1.2 Call
		6.3.2 Group Chat
		Fully implemented as described in SRS V1.3 section 6.6.
		Release Sections:
6.6	Friend	6.6.1 View List of Friends
		6.6.2 Send a Friend Request
		6.6.3 Accept a Friend Request
		6.6.4 Decline a Friend Request
6.7	Profile	Partially implemented as described in SRS V1.3 section 6.7.
		Release Sections:

	6.7.1 View Self Profile
	Exception:
	6.7.2 View Own Photos

4.3.2. Release Version 1.1

In this release version, the focus will be mobile end implementation. However, necessary manpower will still be remained on server side. Server team will be closely collaborating will QA team for non-functional requirements and performance test. The deliverable server API in this release will be version 1.1.

On mobile end, functions implementation will be moving on to moments and communities. The mobile end deliverable in this release will be version 1.1, for both Android and iOS team.

Function Deliverables Table V1.1

Section in SRS	Function Description	Remarks
		Partially implemented as described in SRS V1.3 section 6.4.
		Release Sections:
		6.4.1 Share
6.4	Moments	6.4.1.1 Share Photos in Moments
		6.4.1.2 View Photos Shared by Friends
		Exception:
		6.4.2 Like/Unlike
		Partially implemented as described in SRS V1.3 section 6.5.
	Community and Events	Release Sections:
		6.5.1.1 View Community List
6.5		6.5.2.2 View Community Event List
		Exception:
		6.5.1 Community (All Unfinished Parts)
		6.5.2 Events(All Unfinished Parts)

4.3.3. Release Version 1.2

Server implementation shall be completed at this stage. Focus will be put on mobile app implementation. In this release, most functionalities under moment and community will be implemented. In addition, profile session will be completed.

Function Deliverables Table V1.2

Section in SRS	Function Description	Remarks
		Fully implemented as described in SRS V1.3 section 6.4.2.
6.4.2	Like	Release Sections:
0.4.2	Like	6.4.2.1 Like Moments Shared by Friends
		6.4.2.2 Unlike Moments Shared by Friends
		Fully implemented as described in SRS V1.3 section 6.5.1.
6.5.1	Community	Release Sections:
		6.5.1.2 Join New Community
		6.5.1.3 Quit a Community
		Partially implemented as described in SRS V1.3 section 6.5.2
		Release Sections:
		6.5.2.2 Join an Event
6.5.2	Events	6.5.2.3 Drop an Event
		Exception:
		6.5.2.1 Receive Community Event Notification
		6.5.2.5 View Joined Event
67.3	W O B	Fully implemented as described in SRS V1.3 section 6.7.2
6.7.2	View Own Photos	Release Sections:
		6.7.2 View Own Photos

4.3.4. Release Version 1.3

This release will include full functionality in Group Chat and Events sections.

Function Deliverables Table V1.3

Section in SRS	Function Description	Remarks
	Events	Fully implemented as described in SRS V1.3 section 6.5.2.
(5.2		Release Sections:
6.5.2		6.5.2.1 Receive Community Event Notification
		6.5.2.5 View Joined Event
	Group Chat	Fully implemented as described in SRS V1.3 section 6.3.2.
		Release Sections:
6.3.2		6.3.2.1 Create a New Group Chat
		6.3.2.2 Add Friends to a Group Chat
		6.3.2.3 Quit a Group Chat

4.3.5. Release Version 1.4

This is the last release with new functionalities implemented. All remaining parts will be completed.

Section in SRS	Function Description	Remarks
		Fully implemented as described in SRS V1.3 section 6.3.1.2.
6.3.1.2	Call	Release Sections:
		6.3.1.2.1 Voice Call a Friend
		6.3.1.2.2 Video Call a Friend

4.3.6. Release Version 1.5

This is the last release before project ends. The main tasks for this release are:

- Buffer time for the implementation of unfinished functions in previous releases.
- Bug resolving.

In this final release, a complete version of SeniorConnect System should be released, with full functionality specified in SRS v1.3, reaching the standard of non-functional requirements.

The Final release includes:

• Functioning Server.

- Android platform application
- iOS platform application

4.4. Release Schedule

The first release will take three months and the second release will take 2 months. All the rest releases will take one month each.

Release	Deliverables	Release Date
V1.0	Server v1.0	
	SeniorConnect v1.0 on Android	Jan 15 2015
V 1.0	SeniorConnect v1.0 on iOS	Jan 13 2013
	Bug Report	
	Server v1.1	
V1.1	SeniorConnect v1.1 on Android	Mar 15 2016
V 1.1	SeniorConnect v1.1 on iOS	Wai 13 2010
	Bug Report	
	SeniorConnect v1.2 on Android	
V1.2	SeniorConnect v1.2 on iOS	Apr 15 2016
	Bug Report	
	SeniorConnect v1.3 on Android	
V1.3	SeniorConnect v1.3 on iOS	May 15 2016
	Bug Report	
	SeniorConnect v1.4 on Android	
V1.4	SeniorConnect v1.4 on iOS	Jun 15 2016
	Bug Report	
V1 5	Server Final Version	
	SeniorConnect v1.5 on Android	Jul 15 2016
V1.5	SeniorConnect v1.5 on iOS	Jul 13 2010
	Bug Report	

4.5. Release Impacts

Release	Internal Impact	External Impact
V1.0	1. One or two programmer(s) from back-end team shall be transferred to	

	front-end team.	Play Store.
	 QA team initializes performance testing on server. Front-end team gets feedback from both App Store and Google Play Store, and revise UI design. 	3. Users are able to use basic functions of SeniorConnect on both Android and iOS devices.
	4. Project manager gets bug report and starts to analyze bug.5. Back-end team starts to deal with	
	external requests on server.	
	1. More programmers are transferred to front-end team.	1. New version available on App Store.
V1.1	2. Front-end team adjust release plan according to implementation status for future releases.	2. New version available on Google Play Store.3. Users are able to use new
	3. QA team adjust workload and process.	functions on both Android and iOS devices.
	Server monitoring and performance analysis reports generated and evaluated. Front and toom adjust release them.	 New version available on App Store. New version available on
V1.2	 Front-end team adjust release plan according to implementation status for future releases. QA team adjust workload and 	Google Play Store. 3. Users are able to use new functions on both Android and iOS devices.
	process.	
V1.3	 Front-end team adjust release plan according to implementation status for future releases. QA team adjust workload and 	 New version available on App Store. New version available on Google Play Store. Users are able to use new
	process.	functions on both Android and iOS devices.
	1. Front-end team adjust release plan according to implementation status for future releases.	 New version available on App Store. New version available on
V1.4	QA team adjust workload and process.Server implementation finalized	Google Play Store. 3. Users are able to use new
	4. Report unfinished functions and unsolved bugs.	functions on both Android and iOS devices.

V1.5	1. Implementation completed.	
	2. User manual and maintenance plandeveloped. Documentation	. ~ .
V 1.5	completed.	2. Final version available on
	3. Codebase repository opened to public to accept pull request.	Google Play Store.

4.6. Release Notification

The following stakeholders shall be notified for some/all releases. Communication channel and notification date are specified as following.

Stakeholder	Notifying Release	Communication Channels
Sponsors	All	Email
		App store
Public User	All	Google Play store
		Marketing Channels
	All	Email
Team Members		Phone Call
Team Memoers		Message
		Meeting
Dublic developer	Final Release	SeniorConnect Website
Public developer		Github Repository

4.7. Release Management

In all release circles, QA team shall assess and analyze the deliverables from development team to ensure the release fulfills the requirements set out in the SRS, QP, RM, PP and this RP. Upon approval, project manager shall examine the deliverables including corresponding report again with release manager. After revising the release plan for next release, release manager shall submit release of the new version of system through official channel of each platform.

Usually iOS build shall be submitted one week earlier than Android app given the normal approval time period in practice.

After each release, development team shall checkout and backup the codebase of released version and freeze it till next release.

Any changes shall be documented and reported to project manager.

5. Glossary

Abbreviation	Description
SC	SeniorConnect project/system
PPRO	Project Proposal
SQAP	Software Quality Assurance Plan
SRS	System Requirements Specification
UCM	Use Case Model
UCD	Use Case Description
PP	Project Plan
DMA	Design and Maintainability Analysis
СНМР	Change Management Plan
CMP	Configuration Management Plan
RMP	Risk Management Plan
TSTP	Software Test Plan
TSTC	Software Test Case
RP	Release Plan
CPD	Capability Management Maturity Level 2 Definition