

# SNAP Mobile: Standard Game Requirements

Version 3.2; October 28, 2008

# SNAP Mobile

**NOKIA**

Copyright © 2006–2008 Nokia Corporation. All rights reserved.

Nokia and Forum Nokia are trademarks or registered trademarks of Nokia Corporation. Java and all Java-based marks are trademarks or registered trademarks of Sun Microsystems, Inc. Other product and company names mentioned herein may be trademarks or trade names of their respective owners.

#### **Disclaimer**

The information in this document is provided “as is,” with no warranties whatsoever, including any warranty of merchantability, fitness for any particular purpose, or any warranty otherwise arising out of any proposal, specification, or sample. This document is provided for informational purposes only.

Nokia Corporation disclaims all liability, including liability for infringement of any proprietary rights, relating to implementation of information presented in this document. Nokia Corporation does not warrant or represent that such use will not infringe such rights.

Nokia Corporation retains the right to make changes to this document at any time, without notice.

#### **License**

A license is hereby granted to download and print a copy of this document for personal use only. No other license to any other intellectual property rights is granted herein.

## Contents

<b>1</b>	<b>Preface</b> .....	<b>5</b>
1.1	Audience.....	5
1.2	Definition .....	5
1.3	Document organisation .....	5
<b>2</b>	<b>Standard Game Requirements</b> .....	<b>6</b>
2.1	SNAP Mobile platform .....	6
2.2	Response data and connectivity .....	8
2.3	Account management .....	8
2.4	Friends and presence .....	9
2.5	Multiplayer game .....	10
2.6	Ranking.....	10
<b>3</b>	<b>Terms and abbreviations</b> .....	<b>12</b>
<b>4</b>	<b>Evaluate this resource</b> .....	<b>13</b>

## Change history

March 20, 2006	Version 1.0	Initial document release at <a href="http://www.forum.nokia.com">www.forum.nokia.com</a>
June 20, 2007	Version 2.0	Important changes to requirements; 006, 009, 010, 012, 019, 020, 023, 024, 027, 032, 033, 034, 035. Important changes to best practices; 002, 003, 008, 015, 020.
April, 2008	Version 3.0	Reorganized and updated to correspond with API changes. Removed best practices and added to developer documentation. New SGR: 001, 017, 023, 024, 025, 026, 032, 035, 039, 042. Important changes to SGR: 005, 007, 008, 018, 019, 034, 041. Deleted SGR (old numbers): 032, 033, 034, 035, 038, 039, 040.
July 10, 2008	Version 3.1	Updated 007 and 012; deleted 026(d); and added 027. Updated Terms and Abbreviations.
October 28, 2008	Version 3.2	Minor edits and terminology changes.

# 1 Preface

This document is a part of Nokia's Scalable Network Applications Platform (SNAP) Mobile SDK. It is used as a standard reference for SNAP Mobile game compliance testing.

## 1.1 Audience

This guide is intended for game developers who use the SNAP Mobile API to develop SNAP Mobile games with connected or multiplayer game features for mobile devices that support the Java™ platform or Java™ Platform, Micro Edition (Java™ ME) technology, or for other clients that support the Java™ Platform, Standard Edition (Java™ SE) technology. The guide assumes that readers are familiar with standard online game production and development principles.

## 1.2 Definition

The following definition is important to keep in mind when reviewing the requirements.

- A **STANDARD GAME REQUIREMENT (SGR)** is mandatory and specified with the word **shall**. Failure to comply with a Standard Game Requirement will result in the game being rejected from SNAP Mobile compliance testing.

**Note:** If any of the requirements specified in this document conflict with a feature or functionality that developers want to implement in their games due to a valid business or design reason, then the developers should contact their SNAP Mobile Development Contact to find a solution. The SNAP Mobile Development Contact can be provided through different channels — that is, through a SNAP Mobile business development representative or through Forum Nokia — once the developer has access to the SNAP Mobile development environment.

## 1.3 Document organization

Standard Game Requirements are organized into the following eight different categories:

- **SNAP Mobile platform** — Includes coding and platform requirements as well as user interface requirements to make the connected experience consistent and user friendly.
- **Response data and connectivity** — Demonstrates communication capability over a network correctly.
- **Account management** — Lists basic log-in and account creation rules.
- **Friends and presence** — Implements fully functional features such as the Friends List, Presence, and Chat/IM.
- **Multiplayer game** — Implements fully functional features such as Lobbies, Game Rooms, and Matchmaking.
- **Ranking** — Lists basic ranking rules.

**Note:** For details on implementing any SGR, please refer to the Package documentation in the Javadoc™ for the SNAP Mobile SDK where developers will find sections that match the categories listed above as well as specific references to each SGR.

## 2 Standard Game Requirements

This chapter lists the mandatory Standard Game Requirements that apply to SNAP Mobile games.

### 2.1 SNAP Mobile platform

This section includes fundamental requirements, such as technology implementation and configuration details that developers must follow in order for their game to avoid certain problems on a live SNAP Mobile platform, as well as user interface and user experience features that make the connected experience consistent and user friendly.

- SGR/001 A game shall pass SNAP Mobile Compliance Testing in order to be SNAP Mobile compliant and to be allowed access to the SNAP Mobile Community server on the production SNAP Mobile platform.
- SGR/002 The game shall only use the SNAP Mobile servers and services. Use of any other servers or services outside the SNAP Mobile platform by the game is prohibited.
- SGR/003 All SNAP Mobile games shall use their own unique Game Class ID (GCID) obtained from the SNAP Mobile Development Contact. The GCID given for a game shall not be visibly placed in the JAR manifest or in the JAD file, but shall be compiled in the game code.
- SGR/004 The game shall be compiled using a supported version of the SNAP Mobile API. This means that once the game begins compliance testing, it shall use the latest released version of the SNAP Mobile API or the version just prior to that one.
- SGR/005 The game shall respond to prompts from the SNAP Mobile API's `snapEventListener.errorReceived` callback as follows:
- If the `returnToMainMenu` flag is true, the game shall return to the Main Menu and display the message, "Sorry, there has been an error, please log in again."
  - If the `returnToMainMenu` flag is false, the game shall use the `code` parameter to determine the response per instructions in the `ErrorInfo` class, including displaying any required error message.
- SGR/006 The game shall not send requests to the SNAP Mobile Community server that return "Type 4" errors that are defined in the `ErrorInfo` class of the SNAP Mobile API as errors that typically indicate a problem in the game logic. This requirement only applies to precompliance and compliance testing.
- SGR/007 The following JAD and JAR file parameters shall be present in either the game's JAD file or in the JAR manifest file for JAR-only builds. Additionally, these parameters shall contain valid values, and the game shall display them as specified in Table 1 below.

Parameter	Required Value	Required Display
<code>SNAP-Mobile-WebURL</code>	URL per RFC** 1738	In the HELP, ABOUT, or CREDITS menu.
<code>SNAP-Mobile-Terms</code>	URL per RFC** 1738	On the Create Account screen.
<code>SNAP-Mobile-Help-Email</code>	E-mail address per RFC 2822	In the HELP, ABOUT, or CREDITS menu.
** RFC details can be found on the Internet Engineering Task Force's (IETF) Web site <a href="http://www.ietf.org">http://www.ietf.org</a> .		

Table 1: JAD file parameter requirements

**Note:** The final values for these JAD/JAR file parameters are set by agreement between the publisher or operator and Nokia in the final steps of launching each game to production. This requirement specifies valid placeholder parameter values that are required to pass compliance testing, but must be updated to the final agreed values in order for the game to be allowed to deploy to production.

- SGR/008 The game application shall submit an instance of the `Parameters` class to the SNAP Mobile API to allow the API to access the configuration information. For example, MIDlets must submit an instance of the `MIDletParameterAdapter` class in order to allow the API to read JAD file parameters.
- SGR/009 The game shall include “GO ONLINE” in the Main Menu to gain access to the SNAP Mobile Community server.
- SGR/010 When in online mode, the game shall use the terminology listed in Table 2 (case insensitive).

Terminology	Functionality
CREATE ACCOUNT	Used to refer to all user account creation screens, buttons, and links.
LOGIN	Used in the login screen as well as related buttons and links.
USER NAME	Meaning a unique user ID required for online access.
PASSWORD	Meaning a secured word to verify user identity.
FRIENDS	Used in the online menu referring to the list of friends (for example, “Friends List”) that users create for the purpose of messaging and handling gameplay challenges.
MESSAGES	Used in the friends screen referring to messages to be exchanged between friends.
RANKINGS	Used in the online menu referring to the list of ranking scores.
LOG OUT	Used to end the online connection.

Table 2: Terminology to use in online mode

**Note:** The developer is responsible for localizing the terminology in SGR/010. For suggested localization text examples, refer to the `com.nokia.sm.client` Package documentation in the Javadoc™ of the SNAP Mobile SDK or contact the SNAP Mobile Development Contact for additional examples.

- SGR/011 When the game is launched, the game shall display the game title screen for a minimum of two (2) seconds. The user shall have no option of skipping this title screen. This title screen shall use the logotype images distributed with the Snap Mobile SDK as follows. The top 10 percent of the title screen shall show a black bar containing the logotype image “Powered by Nokia’s SNAP Mobile”; the bottom 10 percent shall show a black bar containing the logotype image “snaparcade.com”. Each image shall be centered horizontally and vertically within its respective black bar.
- SGR/012 The game shall display “Games, friends and lots of fun! <SNAP Mobile Website URL>” on a page within two (2) clicks from the Main Menu (for example, HELP, ABOUT, CREDIT), where <SNAP Mobile Website URL> is defined by the required `SNAP-Mobile-WebURL` JAD file parameter (see SGR/007).
- SGR/013 When a list of items, such as menu choices, cannot be fully displayed in one screen, indicators such as arrows or scroll bars shall show the availability of other items.
- SGR/014 An animation shall inform the player of the progress of an operation requiring connectivity that takes 5 seconds or longer such as log in, log out, rankings, upload, download, or matchmaking.

## 2.2 Response data and connectivity

This section lists the requirement for providing communication capability over a network correctly.

- SGR/015 The game shall close all open network connections and log out from SNAP Mobile Community server when the user exits and logs out from the game.

## 2.3 Account management

This section lists basic log-in and account creation requirements.

- SGR/016 The game shall provide the user with the ability to create a new account and the ability to log in to the SNAP Mobile Community server with an existing account.
- SGR/017 The In-game Login screen shall include the following required fields: User Name, Password, and Save Login.
- SGR/018 In the User Name field, the game shall only allow the player to enter four (4) to fifteen (15) characters from the set “a” – “z”, “A” – “Z”, “0” – “9”, and “\_” (underscore). The game shall not accept any characters in this field that are not from this character set, and the game shall respond with the following error message if the user submits a User Name that is too short or too long: “Your User Name must be from 4 to 15 characters long.”

**Note:** The developer is responsible for localizing the terminology in this SGR and in all other SGR in this section with required error messages. For suggested localization text examples, refer to the `com.nokia.sm.client` Package documentation in the Javadoc™ of the SNAP Mobile SDK or contact the SNAP Mobile Development Contact for additional examples.

- SGR/019 In the Password and Confirm Password fields, the game shall only allow the player to enter four (4) to fifteen (15) characters, consisting of the 7-bit ASCII character codes between character codes 32 (“ ”) and 126 (“~”), inclusive. The game shall not accept any characters in these fields that are not from this character set, and the game shall respond with the following error message if the user submits a Password that is too short or too long: “Your Password must be from 4 to 15 characters long.”
- SGR/020 The password shall be masked and not be displayed in clear text except when the user inputs the password into the game (for example, when creating a user account).
- SGR/021 The game shall allow the players to save their user name and password on the mobile device so they can log in again without retyping this information. To do so, a “Save Login” style check box shall be included; if the check box is cleared, the game shall clear the locally stored user name and password and the default setting of the check box shall be unchecked.
- SGR/022 Since passwords are case sensitive, users shall be able to see the case of each character they are using (either upper- or lowercase) while they are entering their password.
- SGR/023 The in-game Create Account screen shall include, in addition to the required fields from the Login screen, the following required fields: Confirm Password, Birthdate, E-mail Address, and a field or check box for the user to indicate that they accept the SNAP Mobile Usage Terms and Privacy Policy Agreement as well as a Create Account button.
- SGR/024 In the Birthdate field, the game shall only allow the player to enter numbers and no spaces in the MM/DD/YYYY format where “MM” equals the birth month, “DD” equals the day of the month, and “YYYY” equals the year. The game shall

not require the user to enter the slash character, “/”, between the numbers, but shall automatically display this or an equivalent character (for example, hyphen “-”) so that the user only needs to enter the numbers. Additionally, the game shall respond with the following error message if the user leaves the Birthdate field blank or submits a Birthdate that is not valid: “Please enter a valid date of birth.”

**Note:** Developers may localize the date format in the game UI, but the game must submit the date to the SNAP Mobile Community server using the above format.

- SGR/025 The game shall only allow the user to enter an address in the Email Address field that is consistent with RFC 2822. The game shall not require the user to enter the “@” character between the name and domain, but shall automatically display the “@” character so that the user only needs to enter the name and domain. The game shall allow the user to submit an e-mail address of at least 50 characters in length. Additionally, the game shall respond with the following error message if the user leaves the Email Address field blank or submits an Email Address that is not valid: “Please enter a valid e-mail address.”
- SGR/026 Before connecting to the SNAP Mobile Community server to create an account or to allow a successful login, the game shall check that the user entered the correct data in each required field and shall respond with the following error messages in the following cases:
- (a) User submits an identical user name and password: “Your User Name must be different from your Password.”
  - (b) User leaves the User Name, Password, or Confirm Password field blank: “Please complete <field name>.” Here, “<field name>” must match the name of the missing field.
  - (c) User submits a password that does not match the confirmation password: “Passwords do not match. Please try again.”
- SGR/027 Before connecting to the SNAP Mobile Community server to create an account, the game shall require the user to accept the SNAP Mobile Usage Terms and Privacy Policy by displaying the following message and a check box on the Create Account screen: “I agree to all of the SNAP Mobile Usage Terms and Privacy Policy, all found and reviewed by me at <SNAP Mobile terms URL>”, where < SNAP Mobile terms URL> is defined by the required SNAP-Mobile-Terms JAD file parameter (see SGR/007). If the user fails to accept the SNAP Mobile Usage Terms and Privacy Policy, the game shall respond with the following error message: “Please accept the SNAP Mobile Usage Terms and Privacy Policy.”

## 2.4 Friends and presence

This section lists mandatory requirements for implementing fully functional friends, messaging, and presence features, such as the Friends list, user presence, and chat messages.

- SGR/028 The game shall provide the user with the ability to manage the Friends list — that is, to add, remove, accept, or reject friends.
- SGR/029 The game shall prompt the user to confirm their request prior to permanently removing a friend from the Friends list.
- SGR/030 The game shall provide the user with the ability to see the current online status of friends on the user’s Friends list. The online status shall be displayed as (a) “online”, (b) “busy”, or (c) “offline”. The developer may use an alternative graphic representation for the online status cases instead of text, as long as it is used consistently throughout the game.

- SGR/031 If the game allows users to set their online status, there shall be only two options: (a) “online” or (b) “busy”. The developer may use an alternative graphic representation for the online status cases instead of text as long as it is used consistently throughout the game.
- SGR/032 The game shall provide the user with the ability to exchange chat messages with any friend whose online status is “online”. Additionally, the game shall allow the user to send chat messages to a friend whose online status is “busy” only in two cases:
- (a) The “busy” friend in another GCID initiated the chat; or
  - (b) The developer has chosen to allow messaging during gameplay and the “busy” friend is in the same GCID.
- SGR/033 The game shall notify the user of the presence of new messages, for example by showing an icon or pop-up message on the user’s current screen or on a screen that the user may check for messages.
- SGR/034 All friend messages between “friends” in different games shall not contain metadata.
- SGR/035 If the game offers a challenge mode, the game shall allow the user to challenge a friend who is “online” and in the same game, and shall not allow the user to challenge a user in another game.
- SGR/036 The game shall queue messages that a user receives while they are not available for messaging.

## 2.5 Multiplayer game

This section lists requirements for a multiplayer game that supports features such as lobbies, gamerooms, and player matchmaking. While SNAP Mobile games are required to have community functionality (such as login and account creation, rankings, messaging, and presence functionality), providing multiplayer functionality is optional. The requirements in this section apply only to games that use multiplayer functionality.

- SGR/037 By default, the game shall not attempt to create a game lobby. If the game design requires the use of dynamic lobby creation from within the game, the developers shall contact their SNAP Mobile Development Contact.
- SGR/038 The game shall not use more than one matchmaking mode in a given lobby.
- SGR/039 Any game that starts through the challenge start or random start modes shall allow its players to cancel the matchmaking request.
- SGR/040 When a player quits the game, the other players shall be informed that the player is no longer in the game. Additionally, if there are not enough players to continue, the remaining players shall be informed that the game has ended.
- SGR/041 At the end of a successful game session, all of the players in the game shall be returned to the same navigation point from which the game was launched.

## 2.6 Ranking

This section lists basic ranking requirements.

- SGR/042 All multiplayer games must submit the score once after each game played regardless of the score being better or worse than the player’s personal best. All single-player games without multiplayer functionality must have a game mode that supports score submission after each game played.

SGR/043 The game shall allow the user to access and see the rankings information.

### 3 Terms and abbreviations

Term or abbreviation	Meaning
API	Application programming interface.
Challenge Matchmaking Mode	Matchmaking mode in which one player requests a specific opponent.
Game class	Base unit of a network multiplayer game. Game classes are typically implemented on a remote server that is able to support multiple game classes. Game classes contain three discrete components: game lobbies, game rooms, and users.
Game class ID	Also known as GCID, the game class ID serves as a global identifier for a game class. In practice there is a one-to-one correspondence between a game class and a game.
Game room	From the perspective of a player, a game room is a place to meet and engage in gameplay. From the perspective of the developer, a game room is a dynamic object created in a lobby.
Game session	The period from game start until the game stops.
Join Matchmaking Mode	Matchmaking mode in which a player joins a specified game room and lobby.
Lobby	From the perspective of the developer, a lobby is a static object that can hold multiple Game Rooms. Lobbies exist until explicitly deleted.
Matchmaking mode	A matchmaking mode is way of matching players in a game. SNAP Mobile games can have up to five ways: Challenge, Join, Random Start, Sort Start, and Manual modes.
Message	A text message between SNAP Mobile users, sometimes referred to as "chat" or "instant messaging."
Presence	SNAP Mobile functionality that indicates to a SNAP Mobile user's Friends if that user is Offline, Busy, or Online, thus indicating whether the user is available for instant messaging or gameplay.
Random Start Matchmaking Mode	Matchmaking mode in which a user joins an available game room in Random Lobby to play against any other users who enter that room.
Sort Start Matchmaking Mode	Matchmaking mode in which a user joins an available game room in the Sort Lobby. Users are joined to a game room to either top off a room or load balance across available rooms.
SNAP Mobile API	The SNAP Mobile API is a client library that provides networking, community services, and graphical user interface functionality to the game.
SNAP Mobile client	Client terminal, handset, mobile device, or other device that uses the SNAP Mobile API to communicate to the SNAP Mobile Community server.
SDK	Software development kit.
SNAP Mobile Community server	A remote SNAP Mobile server that supports SNAP Mobile API requests.
SNAP Mobile game	A game that both provides access to the SNAP Mobile Community and provides one or more SNAP Mobile in-game functions.
SNAP Mobile Standard Game Requirement (SGR)	An SGR is mandatory and specified with the word "shall". Failure to comply with an SGR will result in the game being rejected from SNAP Mobile compliance testing.
User	Participant, also known as game player, who accesses the community services through a SNAP Mobile client.

## 4 Evaluate this resource

Please spare a moment to help us improve documentation quality and recognize the resources you find most valuable, by [rating this resource](#).