

# Business Requirements Document [BRD]

## Mass Notification System(MNS)

Deerwalk Institute of Technology

Version 1.0

*Sagar Giri*

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## Version and Approvals

VERSION HISTORY			
Version #	Date	Revised By	Reason for Change
1.0			Sagar Giri "First Version"

This document has been approved as the official Business Requirements Document for Mass Notification System mentioned as MNS hereafter, and accurately reflects the current understanding of business requirements. After approval of this document, requirement changes will be governed by the project's change management process, including impact analysis, appropriate reviews and approvals.

DOCUMENT APPROVALS			
Approver Name	Project Role	Signature/Electronic Approval	Date
Hitesh Karki	Director of Academic Affair - DWIT		

## Glossary of Terms

Term/Acronym	Definition
MNS	Mass Notification System
DWIT	Deerwalk Institute Of Technology

## Project Details

Project Name	Mass Notification System - MNS
Project Type	NEW INITIATIVE
Project Start Date	06/20/2014
Project End Date	TBD...

Project Sponsor	Deerwalk Institute of Technology
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## Executive Summary

It is often seen in DWIT that students aren't able to keep track of college time according to the college schedule. Students arriving late in class and college meetings or events causes disruption to many students as well as the teachers. The main cause of this problem is that the students aren't notified in time when such college programs are being conducted. The class representatives (CR) has to inform each and every student's who are outside the class by calling to their cell phones.

The Mass Notification System (MNS) helps to fix this problem. MNS assists to invite all the student in the event venue or lecture class in time. The class representatives won't have to call each and every students who are outside the class when teacher arrives in the class. MNS helps to inform/alert students to be in the class or venue of the college event in simple way. Overall, MNS will help in informing students about college event such as meetings, talk programs or club activity including the venue and time or the lecture classes so that the time of students as well as teachers won't be a waste.

## Document Resources

Name	Business Unit	Role
Students	Students of DWIT	The end user who can receive notification form class representative about college event or class time.
Authorized User	Class representatives, Club presidents, Faculty members or the Event organizer	The authorized user has a permission to inform other students about the class as well as event time and venue.
Administration	Key member of the college administration	The administrative officer who manages user credentials and performs user management.

## Vision and Scope

### 4.1 Project Overview and Background

#### Background

When teacher arrives late in the class, the class representative has to call every students who are outside the class to attend the lecture. In addition to that, if an event has to be conducted immediately, the class representatives has to inform every students by calling to their cell phone (which costs money) or to inform them via email (in this case the students

might not see the email in that time). Hence, when students arrive late in the class or a college event, it causes disruption to many students as well as the teachers.

### Business Opportunity

College meetings are held more often in DWIT. Every student must attend to those events because it is mandatory. Student who are not able to attend the event are punished unless they provide a valid reason. Similarly students are not allowed to enter into the classroom if he/she is late for more than 5 minutes. To inform every students, the class representative have to inform every students about the lecture class and the college events by calling to their cell phones or by sending email. Therefore, this is a great deal of opportunity to sell this product in order to minimize the time and cost to inform all the students about the college events or lectures.

Students as well as faculty members will be immediately benefit from this product because students wont be missing any teacher's class or the college events. Students will be able to keep track of time as per the college schedule and the chances of missing the lectures or the college event will be minimized. And there won't be any disruption in the event by the late comers. Beyond the immediate benefit to students of DWIT, this application has a business opportunity for students of other colleges of Nepal who are struggling to keep track of time according to their college schedule.

### Customer Needs

There is a great need of this application. Student needs a centralized service to keep track of class time as well as events time and venue. This alert system will assist students to arrive in class or in any college event in time. This application will save a lot of money as well as time of the student and teacher.

## 4.2 Scope of Initial Release and Future Releases

<u>Feature</u>	<u>Initial Release</u>	<u>Future Releases</u>
Configure the system	Administrator	
User Management	Administrator	
Login/Logout	Administrator/ Authorized user/ Student	
Use the system to inform about events to other student	Authorized user	Authorized user
Get notification	Students / Authorized user	Students/ Authorized user

### 4.2.1 Limitations and Exclusions

Limitations	Exclusions
Only authorized user can use this application to invite or alert the students of DWIT	Only Android Version available in this initial release.
Only operate only inside the DWIT premises in this initial release	

Users have to update the application once the administrator changes something in the system.	
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### 4.3 Project Dependencies

- This project cannot proceed without an APPROVAL from the mentor to carry on with the project is mandatory.
- The MNS should be able to make use of the standard schema so that it can be made easily pluggable.
- User accounts must use the Google Apps Authentication service which is the DWIT standard. (Email address and Google Apps Password)

### 4.4 Stakeholders and their Profiles

The following comprises the internal and external stakeholders whose requirements are represented by this document:

	Stakeholder	Major Value	Major Interests
1.	Students	Get notification of the college events venue, time and class time.	Saves their time to arrive in the event as well as class so that others wont be disturbed and also to avoid punishments for not attending the college events.
2.	Authorized Users	Inform students and faculty members about the class or any of the college event.	Saves a lot of time, money and effort of informing the students of DWIT and the faculty members via their cell phone or email.

### 4.5 Project Timeline

	Phase	Timeline
1.	Write the Software Requirements Specification	12/15/2014
2.	Develop initial phase	TBD
3.	Write BRD and SRS for future releases	TBD

## Key Assumptions and Constraints

### 5.1 User Load

I anticipate that all the students of DWIT and faculty will login to the application. The maximum number of student users is 92, 24 Faculty and 1 system administration totaling 117 total users.

## 5.2 Key Assumptions and Constraints

#	Assumptions
1	All the users will have access to this system 24x7
2	All the stakeholders will be comfortable using this online Andriod application.
3	All students and faculty members will be able to use it.
4	Class representatives will alert the mass 10 minutes before any college event.
5	Student should be connected to the college Wi-fi INTERNET to use this application.
#	Constraints
1	This is not a fully dependable system that provides end to end solution as validity of college events and class events solely depends on class representatives.
2	Since its mobile based application, one cannot expect to work perfectly in all available Android versions.
3	This application will need to operate with other colleges systems. However, we are not yet proposing an integration effort other than Google Apps Authentication Service. Future releases will involve this integration.

## 5.3 Major Features

Feature Code	Use Case ID	Feature description
FE – 1	UC – 1	USER CONFIGURATION
FE – 2	UC – 2	RECEIVE THE INVITATION/ALERT MESSAGE ABOUT THE CLASS OR COLLEGE EVENT
FE – 3	UC – 3	SEND INVITATION/ALERT MESSAGE TO THE STUDENTS AND TEACHERS ABOUT CLASSES OR COLLEGE EVENTS

## Use Cases

### Use Case Narrative

Use Case ID:	UC -1		
Use Case Name:	USER CONFIGURATION		
Created By:	Sagar Giri	Last Updated By:	Sagar Giri
Date Created:	06/25/2014	Date Last Updated:	06/25/2014

Actors:	ADMINISTRATOR
Description:	CREATE USER CREDENTIALS TO LOGIN TO THE SYSTEM
Preconditions:	Connected to the Internet with lunchd MNS application
Postconditions:	Admin logs in to the MNS application
Normal Course:	<ol style="list-style-type: none"> <li>1. Sees a welcome message</li> <li>2. Login to the application</li> <li>3. Create login credential of all the users</li> </ol>

	4. Set authority and permission of normal users and authorized users 5. Delete a user 6. Logout of the system
Alternative Courses:	Sees an error message based on username/password mismatch or non-existence of the user.
Exceptions:	NONE
Includes:	
Priority:	HIGH
Frequency of Use:	HIGH
Business Rules	<i>BusinessRule-1</i>
Special Requirements:	<ul style="list-style-type: none"> <li>• 24/7 access</li> <li>• Supported by majority of android OS variety</li> </ul>
Assumptions:	Supported by the latest android versions
Notes and Issues:	
Use Case Graphics	<pre> graph LR     Admin[Actor- Admin] --&gt; Login(Login)     Admin --&gt; Config[Configure User Credentials]     Admin --&gt; Priv[Set privileges and authority of users]     Admin --&gt; Delete[Delete a user]     Admin --&gt; Logout[Logout] </pre>

Use Case ID:	UC - 2		
Use Case Name:	RECEIVE THE INVITATION/ALERT MESSAGE ABOUT THE CLASS OR COLLEGE EVENT		
Created By:	Sagar Giri	Last Updated By:	Sagar Giri
Date Created:	06/25/2014	Date Last Updated:	06/25/2014

Actors:	STUDENT
Description:	This use case describes the way that students get notification from the class representative about the college events with venue or lecture time.
Preconditions:	Connected to the Internet with lunchd MNS application
Postconditions:	User logs in to the MNS application
Normal Course:	1. Receives welcome message



NORMAL USER	2. Login to the system. 3. View alert message or notification. 4. Logout of the system.
Alternative Courses:	Sees an error message based on username/password mismatch or non-existence of the user.
Exceptions:	None
Priority:	High
Frequency of Use:	Once per visit.
Business Rules	<i>BusinessRule-2</i>
Special Requirements:	<ul style="list-style-type: none"> <li>24/7 access</li> <li>Supported by majority of android OS variety</li> </ul>
Assumptions:	Supported by the latest android versions
Notes and Issues:	
Use Case Graphic	<pre> graph LR     Actor[Actor - Students] --&gt; Login(Login)     Actor --&gt; View[View alert message / notification]     Actor --&gt; Logout(Logout) </pre>

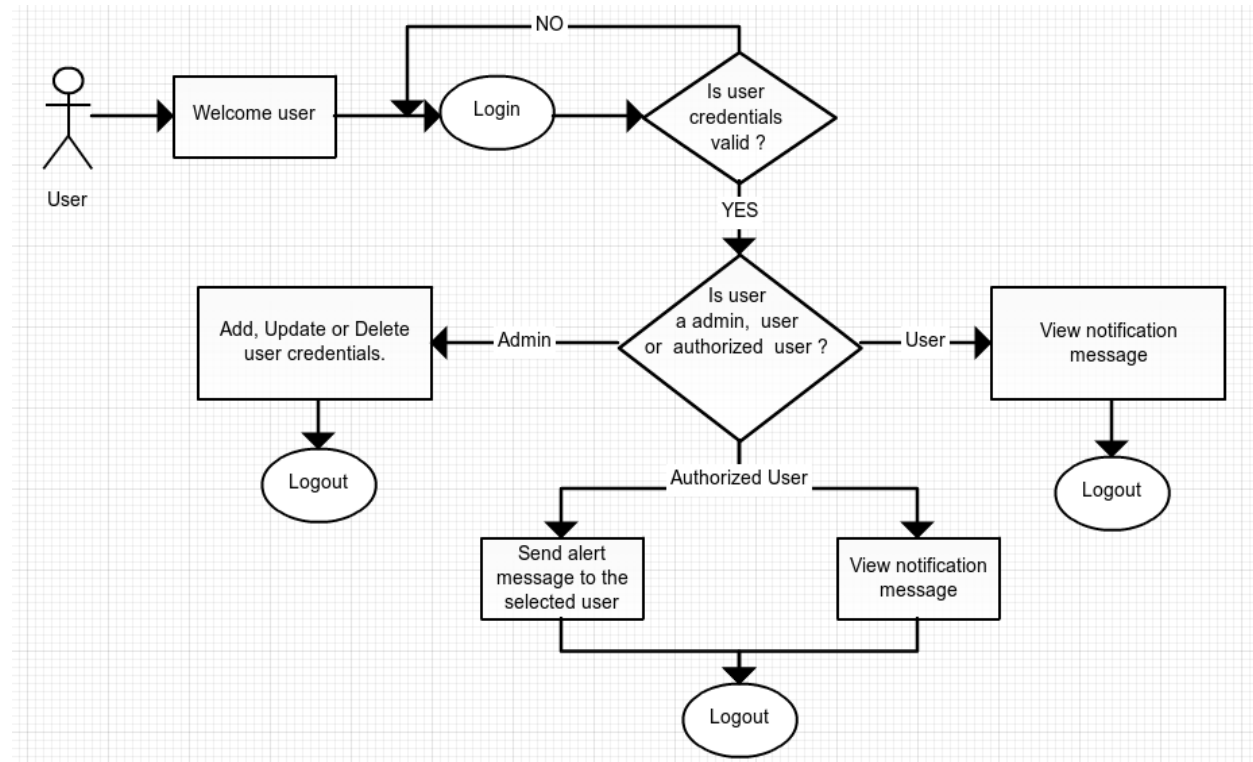
Use Case ID:	UC - 3		
Use Case Name:	SEND INVITATION/ALERT MESSAGE TO THE STUDENTS AND TEACHERS ABOUT CLASSES OR COLLEGE EVENTS		
Created By:	Sagar Giri	Last Updated By:	Sagar Giri
Date Created:	06/25/2014	Date Last Updated:	06/25/2014

Actors:	AUTHORIZED USER
Description:	This use case describes the way that authorized student sends notification to all the students.
Preconditions:	Connected to the Internet with lunchd MNS application
Postconditions:	User logs in to the MNS application
Normal Course: NORMAL USER	1. Receives welcome message 2. Login to the system. 3. Select student and teacher user ID to send notification 4. Select the venue of program 5. Write short message about the importance of the program if necessary 6. Send the message to selected students and faculty

	members 7. Logout
Alternative Courses:	Sees an error message based on password mismatch, non-existence of the user or authentication of valid user.
Exceptions:	None
Priority:	High
Frequency of Use:	Once per visit.
Business Rules	<i>BusinessRule-3</i>
Special Requirements:	<ul style="list-style-type: none"> <li>• 24/7 access</li> <li>• Supported by majority of android OS variety</li> </ul>
Assumptions:	Supported by the latest android versions
Notes and Issues:	
Use Case Graphic	<pre> graph LR     Admin[Actor- Admin] --&gt; Login(Login)     Admin --&gt; SelectID([Select user ID in order to send the event notification])     Admin --&gt; SelectVenue([Select the venue for the program])     Admin --&gt; WriteMsg([Write message if necessary])     Admin --&gt; SendMsg([Send the message to the selected users])     Admin --&gt; ViewAlert([View alert message / notification])     Admin --&gt; Logout(Logout) </pre>

# Business Requirements

## Business Process Flows



**Fig: Business processes flow: Mass Notification System**

## Business Rules Catalog

Business Rule Name:	Configure User Credential
Identifier	<i>BusinessRule-1</i>
Description	Create user credential with default password for all students and the faculty members. Select authorized user and give special privilege to send the message.
Source	
Related Rules	None

Business Rule Name:	Send Invitation message to students
Identifier	<i>BusinessRule-2</i>
Description	Select user ID (which are hard coded in the application) of different users. Select the event venue & time or lecture time. Write message if necessary. Send the message to the selected users.
Source	
Related Rules	None

Business Rule Name:	Receive an alert about the event or lectures
Identifier	<i>BusinessRule-3</i>
Description	Cell phone automatically beeps and vibrates when new alert message is received. Student will be able to view about the event details and lecture time before 10 minutes. Can read the message about how important the event is.
Example	<b>Event:</b> <i>Talk program by Hitesh Karki</i> <b>Venue:</b> <i>Big seminaar hall</i> <b>Time:</b> <i>1:00 PM sharp</i> <b>Message:</b> <i>"Students from all batch are requested to be in this event"</i>
Source	
Related Rules	None