

Experiment Code: ReqSpec2012

UAM/IMS Integration

UAM IMS Requirements Specification

Document Ref	Title		External reference
UAM-SPC-001	UAM IMS Requirements Specification		
Version Date	Version #	Document Owner	Current Status
20 March 2012	4.0		Draft

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1 Summary

1.1 Background

The University Accommodation Management system, UAM, is a specialised student housing solution. Applicants for student accommodation register by completing an online application via a link from the University website.

The Identity Management System (IMS) was introduced to the University in 2008 and is the University's system of record for identity information and primary web authentication. There is currently no automated integration between UAM and the IMS.

In order to bring some efficiency and provide a better user experience for students it is desirable to integrate the UAM system with the IMS – ensuring that a student only needs to register and update personal data in one system. Additionally, it would be beneficial to pass various affiliation information from other University systems to UAM to keep them informed of any student's status changes.

1.2 Scope

The following items are considered to be in scope;

- Integration with the IMS for the Accommodation Application process to eliminate the need for students/applicants to register and enter personal details in more than one system.
- UAM Integration with IMS for any changes or updates to personal details for accommodation applicants or current students who have previously registered online.
- The integration of relevant Affiliations a person has with the University to UAM as they are up updated in the various downstream systems.

1.3 Dependencies

This project is dependent upon:

- ITS resource being available to do the development
- The accommodation package (UAM) being able to integrate suitably with the IMS

1.4 References

None

1.5 Glossary of terms

Term	Meaning
UAM	University Accommodation Management (UAM) system is the University’s specialised student housing solution.
SAP	The Student Administration Platform.
IMS	The Identity Management System (IMS) is the University’s master repository for Personal Data. It stores and maintains details of all persons that the University has a relationship with, including students, staff, visitors, alumni and contractors.
AfUE	Application for University Entrance. This is an application for recording applications for admission to programmes of study at the University. It interfaces with the IMS for the Personal and Contact details of the applicants.
ULN	University Login Name – assigned to persons in the IMS when an Identity becomes resolved.

2 Solution Overview

When a prospective or current student wants to submit an online Application for Accommodation at the University they will use the links currently provided on various web pages, e.g. the University Home page 'Accommodation' link, or via the Application for University Entrance (Accommodation Services link).

The solution for accommodation follows the pattern already established for similar web forms like the Application for University Entrance. Applicants visiting the Application for Accommodation for the first time will be required to register themselves in the IMS and provide all the necessary personal data. The applicant will then be transferred back to the accommodation form where their personal data will be displayed 'read only'. A link back to the IMS will be provided in order that applicants can update personal data at any time.

Additionally, it would be useful for Accommodation staff to have basic student-related information provide to UAM from other systems, to assist them in processing an applicant's request for accommodation.

3 Functional Specification

3.1 *Process models*

3.1.1 Account Registration

Under an Integrated systems approach, the 'Account Login' section on the University Accommodation Home page will direct the user to the IMS for Sign in. For someone who has previously registered with the university, they can use their University ID (7 character number), ULN (if they are already a student) or the personal email address they used to create their account. If they are new to the University then they will be taken to the IMS registration screen (for Accommodation applicants). They will be required to enter the following;

1. Email Address
2. First Name
3. Last Name
4. Password

Following completion of this form and acceptance of the terms and conditions they will be sent a confirmation email. They will be required to complete the verification by clicking on the 'Complete Your Registration' link and populating the following information (some of which is compulsory).

1. Title
2. Middle Names
3. Preferred Name
4. Previous Name
5. Mobile Phone Number (required)
6. Home Phone Number (required)
7. Correspondence Address (required)
8. Gender (required)
9. Date of Birth (required)
10. Citizenship (required)

11. Residency (if not an NZ citizen)
12. Ethnicity (required)
13. Emergency Contact details (required)
14. National Student Number (NSN)

Once this page is complete the applicant can return to the Accommodation portal – Home Page and lodge an application.

Note: Where an UAM administrator enters an application on behalf of an applicant, they will need the ability to create the identity in the IMS first. Then they will enter the IMS ID number into UAM manually and push the person message from the IMS in order to populate the required personal data fields. This process for gathering personal data would also be the same for non-student accommodation residents, who are currently entered into UAM through the Administration pages.

3.1.2 Completing an Accommodation Application – IMS Identity Data

Once an Applicant has either logged in or registered (in the IMS) and completed their verification they can begin a new Application, by selecting the 'My Application' link from the home page – as they do today. The UAM system will recognize them as being logged in, receiving their credentials from the IMS, using the 7 character unique University ID as the link between the two systems.

The Select Application page of the UAM system will look no different to how it is currently and once an applicant selects their application type and clicks on 'Save and Continue' - they will be transferred to the 'Personal Details' page. This page will be modified from what they see today, as all fields (not just 'Family Name' and 'First Name') will be display only. A link will exist on the page to 'Update Personal Details', which will transfer the user to the IMS (in a new browser window) where they can maintain their own data. When they return to the 'Personal Details' page their applicant information will be updated with whatever was saved in the IMS. This will be a near real-time update.

Similarly, with the 'Contact Details' page in the Accommodation Application – all fields will be read only with three separate buttons to link to different parts of the IMS for adding and/or updating Addresses, Phone & Email and Emergency Contacts details. A new browser window will be opened in the IMS on the appropriate page – and when saved will push a near-real time message to the Accommodation system to update anything that has changed.

3.1.3 Synchronising Affiliation data

Some affiliations (which represent the relationships a person has with the University) are displayed in the IMS. These are maintained in a number of University systems and sent via messaging to University Login Management system and LDAP (which is where the IMS is reading these from). When these affiliations are updated (or when a user is initially sent to the Accommodation system) these will be sent via message to the UAM database (for internal use only) using an Application Programming Interface (API) - supplied by UAM. This will enable administrators to have up to date information relating to an applicant's (or current resident's) status with the University. The Affiliations of interest to UAM are;

- a. Applicant
- b. Undergraduate Student
- c. Postgraduate Student
- d. Doctoral Student

e. Alumni

3.1.4 Other Student Related data

NCEA Test Results

When an applicant selects the 'School Leaver' option on the UAM application form they will be prompted for their National Student Number (NSN) if it is not already stored against their IMS identity. Note: NSN will be included in the personal data collection once an applicant verifies their email address, but will be optional at this stage. When an applicant proceeds to select their Accommodation Application type, and they select Option1 (School Leaver), a check on the database will be made to determine if their NSN number has been collected. If not, it will prompt them for it. When it is entered, or on confirmation that it has been entered, a web service will pull all relevant NCEA test data from the SAP database. Note: at this stage CIE and IB results sent from the Ministry of Education do not contain the NSN number so it will not be possible to collect these results automatically using the NSN number.

Scholarship Information

As part of the Education question in the Accommodation Application, information is gathered on whether an applicant has applied for or intends to apply for a scholarship. If an applicant has previously applied the information relating to this application is currently stored in SAP (though in the future this will be in Scholarship Management) and could be retrieved by a web service and posted directly to the UAM database via an API. The current scholarship question will be left in place, for cases where applicants intend to apply or have applied for a scholarship that is not centrally managed, i.e. some faculties manage their own scholarships.

Photos

All students are required to have an ID card photo entered in the university ID card system. A message is published from this system every time a new photo is added for a student. There is a requirement for the UAM system to subscribe to this message where a student is a current accommodation applicant or resident. This will update the UAM database directly via an API.

3.2 Business Rules / Regulatory Requirements

Type of Rule	Identifier	Rule details
Regulation		All requirements of the Public Records Act 2004 must be observed and adhered to.
Regulation		All requirements of the Privacy Act 1993 must be observed and adhered to.
Regulation		All requirements of the University's Employment Code - Access to Personal Information policy must be observed and adhered to.

3.3 Assumptions

	Assumption
1.	The Identity Management System will be the master for all personal data and will be responsible for sending any changes relating to people that the Accommodation system is interested in as they are updated or added.

3.4 Functional Requirements

Requirement #	Requirement Description	Navigation	Dependencies / Traceability
1	An Accommodation Applicant should only be required to register once with the University in order to apply for Admission to a Programme of Study and to stay in a University Residence. A single ID should be used to access both Applications and eventually be used as their Student ID once they are accepted into a Programme.		
2	Personal and Contact Details required for the Accommodation Application should be created and maintained in the IMS. A user should be able to access the IMS to amend these details directly from an Application within UAM.		
3	The UAM system should be updated automatically when a person (who is either an Applicant, a current University Accommodation resident or who has been offered a place in a University residence) changes or updates their personal or contact details in the IMS.		
4	The UAM system should be updated automatically when a person's (who is either an Applicant, a current University Accommodation resident or who has been offered a place in a University residence) affiliations with the university change.		

5	A report is required to identify persons with current accommodation applications who are not current students and whose applications for admission have been declined.		
6	A report is required to identify current University residents who are no longer active students (or were never enrolled).		
7	Photos from a student's id card are required to be sent to UAM when they are added or updated in the ID card system.		
8	Secondary School details and NCEA results (from Year 12 onwards) should be sourced from SAP data (and populated in the UAM database) if this available at the time an applicant completes the form – and we have received their NSN.		
9	Scholarship information should be pre-populated in the UAM database, from SAP, if it exists at the time an applicant completes the form.		
10	Hard Copy Applications – for those students that submit a hard-copy application, Accommodation staff require the ability to create user accounts in the IMS (on their behalf). They can then manually enter the IMS ID into UAM and then push the relevant person message from the IMS.		
11	Non-Student Applications – the business require the ability to process applications for non-students also. These persons will still require the same IMS registration (entered manually by UAM staff) and be pushed from the IMS in the same way as is the case with manually entered student applicants.		

3.4.1 Account Registration (online Student Applicants)

HOME

The University Accommodation Portal

Applications for 2012 Accommodation:

- Apply for Full Academic year and Semester One from 1 August 2011
- Apply for Semester Two from 1 August 2012

Welcome to the Accommodation Portal. You must register with the University to receive your login details. You need these details to log in, to return to the application, to check the status of the progress of your application and to correspond with Accommodation Services. Note also that this ID will be used for any University Applications for University Entrance and will eventually serve as your student ID once you have been accepted for a Programme of study.

From the Portal you can:

- Apply for a place in a University residence
- Check your application status
- Reapply as a returning resident

Applications

To apply if you are:

- **A new applicant, not yet registered with the University:** Please click on the 'Sign up for a new account' link below
- **A new applicant, already registered with the University:** Please sign in using the link below
- **A returning resident:** Please sign in using the link below

Application Progress Status

To check the status of the progress of your application, please sign in using the link below

Sign in

University ID, ULN or Email

Password

[Sign up for a new account](#)

[I cannot access my account](#)

From the 'Sign up for a new account' link:

Register for a new account

Email address

First name

Last name

Choose a password

Confirm password

I accept the [terms and conditions](#), and [disclaimer](#).

Register

Step 1
Complete and submit this registration form, using your personal email address. Please provide an alternative to your school email if possible. We will use this address to correspond with you.

Step 2
Select a secure password that is at least 8 characters in length.

Step 3
You will receive an email. Please use this to activate your account so it can be used to sign into the Accommodation Portal.

Clicking on the register Button will invoke the following message;

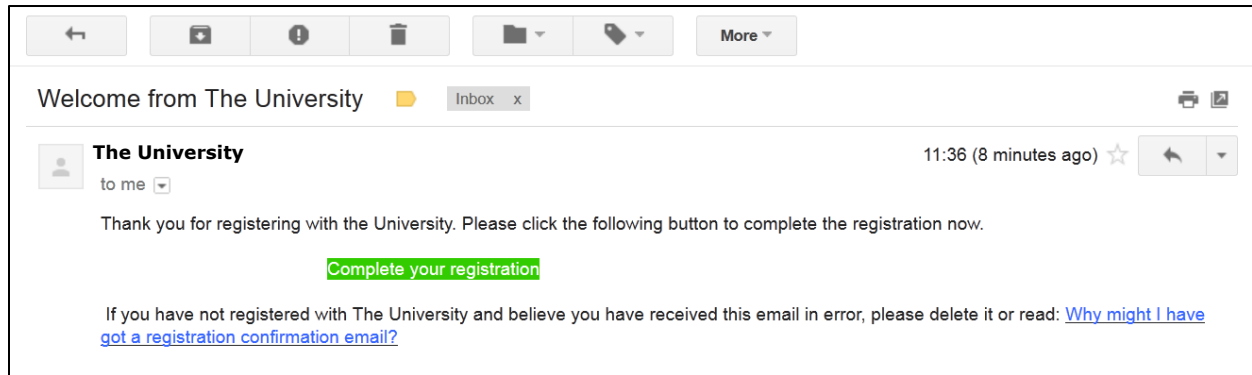
Validate your email address

We have sent an email to the following address. Please click on the link within the email to validate your address.

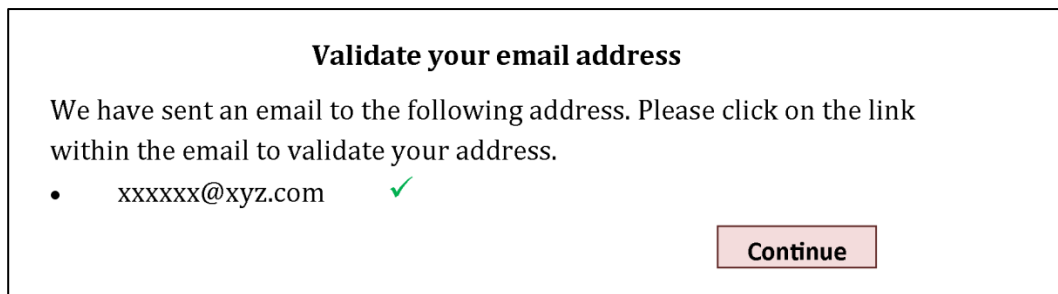
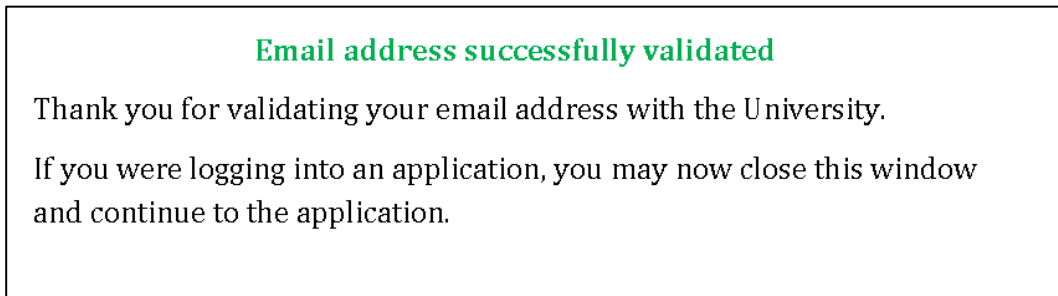
- [xxxxxx@xyz.com](#)

Continue

Confirmation Email from IMS



Clicking on the 'Complete your registration' link will bring up the following message;



Student (and potential student) Application

Clicking on the 'Continue' button opens up the Personal and Contact Details Page (tbd)

Application for Accommodation

*Required fields

Your name

Full legal name

Important: Please ensure the name reflects the legal name on passport or birth certificate

Title

*First name

Middle names

*Last name

Preferred name

Use this section to indicate other names

Do you have a preferred name that is different from your full legal name? Yes No

Do you have a previous or maiden name? Yes No

Your contact details

*Home phone Preferred Contact number

*Mobile phone Preferred Contact number

*Mailing address

Start typing your address. If you have an overseas address select Enter Overseas Address, or if you can't find your NZ address, select Manually enter a NZ address.

or

*Home address Same as Mailing address

Your demographics

*Gender Male Female

*Date of birth

*Citizenship

*Ethnicity

Emergency Contact

*Contact Name

*Relationship

Email

Home phone *

Mobile phone

Work phone

Address

Your National Student Number (NSN)

If you are applying as a New Zealand School Leaver then please provide your NSN

NSNs are the unique numbers used to identify students on the New Zealand National Student Index

If a person selects a citizenship other than 'New Zealand', 'Australia' or 'Cook Islands' they are presented with this question (per the current AfUE)

*Citizenship	<input type="text"/>
*Are you a permanent resident of New Zealand?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Click on Next once all Fields are populated and receive the following Confirmation message;

Confirm your legal name

It is a government requirement that we collect your full legal name as it is written on your birth certificate or passport. If you do not give us your full legal name it will delay the processing of your application.

Please confirm that your legal name is:

Mr An A Applicant

I confirm that this is my full legal name.

Clicking on Continue will take you into the 'Welcome' page (with Profile Summary in top left hand corner) of the Accommodation Application.

3.4.2 Completing an Accommodation Application

Once signed in or immediately after completing the Registration steps in Section 3.4.1 an applicant will be directed to the 'Welcome' page.

HOME

My Application Welcome, Applicant | [Log off](#)

Profile Summary	Accommodation Portal	Links
Name An Applicant	To begin a new application, select My Application .	<ul style="list-style-type: none">• Halls of Residence• Self-catered apartments• Completing the application form
	When completing the online application, please make sure that you have fully and correctly completed each section before clicking on "submit and continue" button - you will not be able to return to the search again.	
	If you need to make any changes to your current application, do not complete a new application - please email Accommodation Services with any updates.	
	Current Active Application Status: Status Not Available	

Using the 'My Application' link starts the Application process.

MY APPLICATION

1. Select Application

Please choose the correct application option to complete. If you choose the incorrect application option it will delay the processing of your application.
Please note: Applications for 2012 Accommodation, do not open until 1 August 2011.

1. School leaver: Choose this option if:

- You are a New Zealand citizen and are completing or have completed your last year of school in 2010 in New Zealand or abroad.
- You are an international student and are completing or have completed your last year of school in 2010 in New Zealand.

2. International student: Choose this option if:

- You are not a New Zealand citizen or permanent resident and are coming to New Zealand to study.

3. Other applicants: Choose this option if:

- You are not a recent school leaver and are applying for a place in a residence for the first time.
- You are a returning resident (i.e have stayed in a University residence before)

Only international students who will be studying at the University for the first semester are eligible to apply for the Semester One option.

A) School leavers

2011 - Semester 2

B) International students

C) All other applicants

After selecting the type of applicant you are, and selecting 'Save & Continue' you are presented with your personal details. Note: the Personal and Contact Details pages are the same regardless of the Application type, e.g. School Leaver, International Student, or Other Applicants.

For Type 1 Applications (School Leavers), the following additional question should be asked, if the NSN is not already in the IMS for the applicant;

Your National Student Number (NSN)

If you are applying as a New Zealand School Leaver then please provide your NSN

NSNs are the unique numbers used to identify students on the New Zealand National Student Index

Next

This will enable the retrieval of any stored NCEA exam results in SAP (e.g. year 12 NCEA) for Applicants. Given the sensitive nature of this data the results should be only populated in the database tables and not displayed to the applicant.

MY APPLICATION

<p>My Application Menu</p> <p>Apply for 2012 - Semester 1</p> <p>A) School leavers</p> <ol style="list-style-type: none"> 1. Personal Details 2. Contact Details 3. Education - Secondary School and Tertiary 4. Criminal Record 5. Residential Preference 6. Special Health and Other Requirements 7. Referees 8. Personal Profiles 9. Declaration 10. Application Status 	<p style="text-align: right;">Update Personal Details</p> <p>1. Personal Details</p> <p><u>Applicant Information</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Last Name</td><td>Scott</td></tr> <tr><td>First Name</td><td>Adam</td></tr> <tr><td>Middle Name</td><td>Peter</td></tr> <tr><td>Preferred Name</td><td>Peter Scott</td></tr> <tr><td>University ID</td><td>1234567</td></tr> <tr><td>Gender</td><td>Male</td></tr> <tr><td>Date of Birth</td><td>04 May 1984</td></tr> <tr><td>Citizenship</td><td>New Zealand</td></tr> <tr><td>Residency</td><td>New Zealand Permanent Resident</td></tr> <tr><td>Ethnicity</td><td>NZ Maori</td></tr> </table> <p style="text-align: center;">Confirm & Continue</p>	Last Name	Scott	First Name	Adam	Middle Name	Peter	Preferred Name	Peter Scott	University ID	1234567	Gender	Male	Date of Birth	04 May 1984	Citizenship	New Zealand	Residency	New Zealand Permanent Resident	Ethnicity	NZ Maori
Last Name	Scott																				
First Name	Adam																				
Middle Name	Peter																				
Preferred Name	Peter Scott																				
University ID	1234567																				
Gender	Male																				
Date of Birth	04 May 1984																				
Citizenship	New Zealand																				
Residency	New Zealand Permanent Resident																				
Ethnicity	NZ Maori																				

This page would be pre-populated with data from the IMS. Click on Update personal details to go to the IMS and change or add data (see below).

Clicking on the 'Confirm & Continue' button will take the user to the Contact Details page.

Legal name Adam Peter Scott
Preferred name Pete Scott

[Update name](#)

Demographics

Gender Male
Date of birth 4 May 1984
Citizenship New Zealand
Residency You are a citizen of New Zealand.
Ethnicities NZ Maori
Ethnic Group Maori

[Update demographics](#)

Identifiers

[Update identifiers](#)

Status

[Update status](#)

My Application Menu

Apply for 2012 - Semester 1

A) School leavers

- 1. Personal Details
- 2. **Contact Details**
- 3. Education - Secondary School and Tertiary
- 4. Criminal Record
- 5. Residential Preference
- 6. Special Health and Other Requirements
- 7. Referees
- 8. Personal Profiles
- 9. Declaration
- 10. Application Status

2. Contact Details

Your Mailing Address for Correspondence & Residential Contract

Add / Update Address Details

Name of Correspondence Contact	Adam Scott
Street Address	10 Queen Street
Suburb	Auckland Central
City / Town	Auckland
Region	
Country	New Zealand
Postal Code	0530

Your Permanent Home Address

Street Address	23a Church Road
Suburb	Richmond
City / Town	London
Region	Surrey
Country	United Kingdom
Postal Code	TW10 23T

Your Email Addresses and Phone Numbers

Add / Update Email & Phone Details

Mobile Phone Number	012 3456789	<input checked="" type="checkbox"/> preferred
Home Telephone Number	0012 345 6789012	
Correspondence Email	apscott@gmail.com	

Your Emergency\Next-of-Kin Contact Details

Add / Update Emergency Contact Details

Name of Correspondence Contact	Mary Scott
Relationship to you	Parent
Street Address	23a Church Road
Suburb	Richmond
City / Town	London
Region	Surrey
Country	United Kingdom
Postal Code	TW10 23T
Telephone Number	00442075689644
Mobile Phone	00440204567912
Correspondence Email	msscott@gmail.com

Confirm & Continue

The Add/Update IMS buttons will take the applicant to the following IMS pages to maintain their person data;

Add/Update Address Details – IMS

Personal details	Addresses	Email & Phone	Emergency Contacts	Integration	Affiliations	Audit
------------------	------------------	---------------	--------------------	-------------	--------------	-------

Home address

23a Church Road
Richmond
London
SURREY TW10 23T
United Kingdom

[Lock address](#) [Remove address](#) [Update address](#)

Mailing address

10 Queen Street
Auckland Central
Auckland 0530
New Zealand

[Lock address](#) [Remove address](#) [Update address](#)
[Add address](#)

Click on Update Address

Change Address

Address	
Country	United Kingdom
Address line 1	23a Church Road
Address line 2	
Address line 3	
Suburb	Richmond
City / Town	London
State	
Postcode	TW10 23T

Is this address for an intermediary or organisation acting on your behalf? Yes No

[Change address](#) [Save address](#) [Cancel](#)

Note: When Entering an Address you can enter a Contact Name (required by Accommodation)

Change Address

Address 190 Arthur Street, Onehunga, Auckland 1061, New Zealand

Is this address for an intermediary or organisation acting on your behalf? Yes No

Name of intermediary or organisation

This is then displayed as a 'care of' (or c/o);

Campus address

c/o Mr Big
19 Prince Street
Felding 4702
New Zealand

Add Update Email & Phone – IMS

Personal details
Addresses
Email & Phone
Emergency Contacts
Integration
Affiliations
Audit

Email address

Email address	Types
apscott@gmail.com	Personal

Send mail to all
Add/update email addresses

Phone numbers

Phone number	Types
--------------	-------

Add/update phone numbers

Add/Update Phones

List all your phone numbers in order of priority. Click on the arrows to establish your order of preference.

	Type	Phone number	
1.	▼ Fax	+ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Country Area Number Ext	Remove
2.	◆ Other	+ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Country Area Number Ext	Remove
3.	◆ Mobile	+ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Country Area Number Ext	Remove
4.	◆ Home	+ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Country Area Number Ext	Remove
5.	◆ Work	+ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Country Area Number Ext	Remove
6.	◆ Semester Phone	+ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Country Area Number Ext	Remove

Cancel
Save

Add/Update Emails

List all your email addresses in order of priority. Click on the arrows to establish your order of preference.

	Type	Email address
1.	▼ Personal	apscott@gmail.com
2.	◆ Work	<input type="text"/>
3.	◆ Other	<input type="text"/>

Cancel
Save

Add / Update Emergency Contact Details – IMS

Personal details | Addresses | Email & Phone | **Emergency Contacts** | Integration | Affiliations | Audit

[Add emergency contact](#)

Change Emergency Contacts

* Contact Name	Mary Scott
* Relationship	Parent
Email	msscott@gmail.com
Home phone	+ 44 207 5689644
Mobile phone	+ 44 020 4567912
Work phone	+
Address	
Country	United Kingdom
Address line 1	23a Church Road
Address line 2	
Address line 3	
Suburb	Richmond
City / Town	London
State	Surrey
Postcode	TW10 23T

[Change address](#)

[Cancel](#) [Save](#)

Other Application Information

1. NCEA Test Results and School Details

Section 3 of the UAM Application (Section 4 for international applicants) requires Secondary School details and results, Proposed Tertiary Study and Scholarship information – some of which is asked for and stored in other University systems;

This is the current page in the Accommodation Application

MY APPLICATION

My Application Menu

Apply for 2012 - Semester 1

A) School leavers

1. Personal Details
2. Contact Details
3. Education - Secondary School and Tertiary
4. Criminal Record
5. Residential Preference
6. Special Health and Other Requirements
7. Referees
8. Personal Profiles
9. Declaration
10. Application Status

2. Education - Secondary School and Tertiary

a) Secondary School Details

If you are currently studying or have finished your last year of secondary school in NZ, please provide the name of the secondary school you attended or are attending in your final school year:

NZ School Name:

Year:

Is this your first year of study at the University of Auckland?

For students studying NCEA, CIE (Cambridge International Examinations), or IB (International Baccalaureate) please complete the table below with the details for your last year of study (NCEA is usually year 12):

NB: International Baccalaureate and NCEA students - list subjects only

Subject	Type of examination:	Subject:	CIE - Percentage %
Subject 1:	<input type="text" value="CIE - Level A"/>	<input type="text"/>	<input type="text"/>
Subject 2:	<input type="text" value="CIE - Level A"/>	<input type="text"/>	<input type="text"/>
Subject 3:	<input type="text" value="CIE - Level AS"/>	<input type="text"/>	<input type="text"/>
Subject 4:	<input type="text" value="CIE - Level AS"/>	<input type="text"/>	<input type="text"/>
Subject 5:	<input type="text" value="CIE - Level AS"/>	<input type="text"/>	<input type="text"/>
Subject 6:	<input type="text" value="CIE - Level A"/>	<input type="text"/>	<input type="text"/>

Please select one of the following if your Year 12 NCEA result:

Year 12 NCEA Result:

b) Proposed Tertiary Study

List your proposed Academic Programme/Plan for the coming year.

Institution:

Programme / Plan:

Proposed year of graduation:

c) Scholarship Information

Did you apply or are you intending to apply for any University of Auckland scholarship?

If so, please provide details:

For NZ School Leavers who have NCEA results – they will no longer be required to fill out section a) of this form – as we would have collected their NCEA result and school information from SAP at the time that entered their NSN.

However, the section will need to remain (and be re-worded accordingly). See sample below;

MY APPLICATION

My Application Menu

Apply for 2012 - Semester 1

A) School leavers

- Personal Details
- Contact Details
- Education - Secondary School and Tertiary**
- Criminal Record
- Residential Preference
- Special Health and Other Requirements
- Referees
- Personal Profiles
- Declaration
- Application Status

2. Education - Secondary School and Tertiary

a) Secondary School Details

Is this your first year of study at the University? Yes No

NCEA Students - if you are currently or previously sat NCEA then your results will be sent directly to us. Please go directly to Question b).

CIE and IB - for students studying CIE (Cambridge International Examinations) or IB (International Baccalaureate) please complete the details below:

If you are currently studying or have finished your last year of secondary school in NZ, please provide the name of the secondary school you attended or are attending in your final school year:

NZ School Name:

Year:

Subject	Type of examination:	Subject:	CIE - Percentage %
Subject 1:	- Please Select -	<input type="text"/>	<input type="text"/>
Subject 2:	- Please Select -	<input type="text"/>	<input type="text"/>
Subject 3:	- Please Select -	<input type="text"/>	<input type="text"/>
Subject 4:	- Please Select -	<input type="text"/>	<input type="text"/>
Subject 5:	- Please Select -	<input type="text"/>	<input type="text"/>
Subject 6:	- Please Select -	<input type="text"/>	<input type="text"/>

b) Proposed Tertiary Study

List your proposed Academic Programme/Plan for the coming year.

Institution:

Programme / Plan:

Proposed year of graduation:

c) Scholarship Information

Did you apply or are you intending to apply for any University of Auckland scholarship?

If so, please provide details:

2. Scholarship Information

Section c) of this application page should stay as it is. However, we will also be importing any SAP scholarship information (i.e. whether an applicant has applied for a scholarship, and if so, the name of the scholarship) for accommodation applicants from the new Scholarship Management system. These will only relate to centrally administered scholarships and not those managed by the faculties. The Scholarship Management online application system is currently in development and is unlikely to be available to provide this information at Go Live. Instead this integration will be turned on when Scholarship Management is implemented. Given that the above question will remain in the application form, UAM will continue to capture this information manually from applicants.

3.4.3 Synchronising Other Personal Data

IMS Changes and Affiliation data

When an affiliation (of interest to UAM) is added to or removed from a person that exists in the UAM database (i.e. a current applicant, and past or present University resident), a message should be published from the IMS and subscribed to by UAM to update the person's record. The IMS will send all Affiliation changes to UAM for all IMS identities, but will update only those persons that exist in the UAM database, via an API. Note: UAM is interested in any change to a person's identity record that is not captured by the processes in Section 3.4.1 and 3.4.2 of this document.

The Affiliations of interest to UAM are;

- a. Applicant
- b. Undergraduate Student
- c. Postgraduate Student
- d. Doctoral Student
- e. Alumni

Photos

Along with the affiliation data - photos should also be published to UAM, and re-sent whenever they are updated in the ID card system – for students who are current accommodation applicants or residents (as with the affiliation messages). Currently, there is an outbound message from the ID card system which UAM will subscribe to receive newly added or updated photos.

Note: Given the size of the files in relation to photos it will be necessary for the UAM administrators to clean out photos that are not required on a regular basis, e.g. for those applicants that never become residents.

3.4.4 Reports

Once Affiliation data is interfaced into UAM, the business will be able to better identify persons who are either currently staying at a University residence and are not entitled to (as they are no longer or never were a student) or have an outstanding accommodation application but have been refused entry to a programme of study at the University. Reports are required to be written that will use the affiliation information of a person in the UAM to determine their eligibility to accommodation.

Data required for the Report will be;

- a. UAM ID number
- b. UniversityID
- c. Legal Name
- d. Resident Status
- e. Resident Year
- f. Enrolment Term
- g. Enrolment Status
- h. Residence
- i. Current Affiliations

3.5 Data Requirements and Transformations

3.5.1 Personal Details

Field Description	Field Type	Req	UAM Record Name	UAM Field Name	IMS Record Name	IMS Field Name	Comments
Surname	Char 40	Y	Entry	NameLast	PERSONNAME	LASTNAME Where NAMETYPE = PRI	IMS Legal last name
First Name	Char 40	Y	Entry	NameFirst	PERSONNAME	FIRSTNAME Where NAMETYPE = PRI	
Middle Name	Char 40?	N	Entry	NameOther?	PERSONNAME	MIDDLENAME Where NAMETYPE = PRI	
Preferred Name	Char 40	Y	Entry	NamePreferred		FIRSTNAME LASTNAME Where NAMETYPE = PRF	IMS Preferred Names
University ID	Char 30	Y	Entry	ID1?	PERSONEXTERNAL IDENTIFIER	IDENTIFIERVALUE Where .DENTIFIERTYPE = 'UniversityID'	Will be required – and automatically populated
Gender	Int?	Y	Entry	GenderEnum (Edit Table)	PERSON	GENDER	F, M or U (Issue?)
Date of Birth	DateTime	Y	Entry	DOB	PERSON	DATEOFBIRTH	
Citizenship Status	Int?	Y	EntryDetail	Citizenship_ CountryID? (Edit Table)	PERSON	CITIZENSHIP	Country in IMS
Residency	Char?	Y			PERSON	RESIDENCY	
Ethnicity	Char 50	Y	EntryDetail	Ethnicity (Edit Table)	PERSONETHNICITY	PERSONETHNICITY	Can have multiple in IMS Mapping (Ethnic group Code)
Photo	Image		EntryDetail	PhotoImage	ID card System: PHOTO	CONTENT	Subscribe to ID card photo message – from ID card system (not IMS)

3.5.2 Address Details

Field Description	Field Type	Req	UAM Record Name	UAM Field Name	IMS Record Name	IMS Field Name	Comments
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Mailing Address (AddressTypeID = 'Mailing')

Contact Name	Char 80	Y	Entry Address	Contact Name	PERSONPHYSICAL ADDRESS	CAREOF	Where ADDRESSTYPE = 'Mailing'
Street Address	Char 80	Y	Entry Address	Street (Note: Street2 also)	PERSONPHYSICAL ADDRESS	LINE1 & LINE2 & LINE3 & LINE4	
Suburb	Char 80		Entry Address	Street2?	PERSONPHYSICAL ADDRESS	SUBURB	
City/Town	Char 60	Y	Entry Address		PERSONPHYSICAL ADDRESS	CITY	
Region	Char 60	Y	Entry Address	StateProvince? (Edit Table)	PERSONPHYSICAL ADDRESS	COUNTY or STATE	
Country	Int	Y	Entry Address	Country_ID (Edit table)	PERSONPHYSICAL ADDRESS	COUNTRY	
Postal Code	Char 10	Y	Entry Address	ZipPostcode	PERSONPHYSICAL ADDRESS	POSTALCODE	

Phone and Email

Telephone Number	Char 25	Y	Entry Address	Phone	PERSONPHONE	AREACODE PHONENUMBER	Where PHONETYPE = 'Semester'? Or 'Other'? or 'Home'
Preferred Flag?					PERSONPHONE	ORDERPREFERENCE	Where PHONETYPE = 'Semester'? Or 'Other'? or 'Home' and ORDERPREFERENCE = 1
Mobile Phone	Char 25		Entry Address	PhoneMobileCell	PERSONPHONE	AREACODE PHONENUMBER	Where PHONETYPE = 'Cellular'

Preferred Flag?					PERSONPHONE	ORDERPREFERENCE	Where PHONETYPE = 'Cellular' ORDERPREFERENCE = 1
Email	Char 100		Entry Address	Email	PERSONEMAIL ADDRESS	EMAIL	Where EMAILYPE = 'Home'? *** Allow it to be editable?

Home Address (AddressTypeID = 'Home')

Contact Name	Char 80	Y	Entry Address	Contact Name	PERSONPHYSICAL ADDRESS	CAREOF	Where ADDRESSTYPE = 'Home'
Street Address	Char 80	Y	Entry Address	Street (Note: Street2 also)	PERSONPHYSICAL ADDRESS	LINE1 & LINE2 & LINE3 & LINE4	
Suburb	Char 80	Y	Entry Address	Street2?	PERSONPHYSICAL ADDRESS	SUBURB	
City/Town	Char 60	Y	Entry Address		PERSONPHYSICAL ADDRESS	CITY	
Region	Char 60	Y	Entry Address	StateProvince? (Edit Table)	PERSONPHYSICAL ADDRESS	COUNTY or STATE	
Country	Int	N	Entry Address	Country_ID (Edit table)	PERSONPHYSICAL ADDRESS	COUNTRY	
Postal Code	Char 10	Y	Entry Address	ZipPostcode	PERSONPHYSICAL ADDRESS	POSTALCODE	

3.5.3 Emergency Contact Address

Contact Name	Char 80	Y	Entry Address	Contact Name	PERSONEMERGENCY CONTACT	CONTACTNAME	
Emergency Contact Relationship	Char 50	Y	Entry Address	Relationship	PERSONEMERGENCY CONTACT	RELATIONSHIP	Mapping required? See IMS Values below
Street Address	Char 80	Y	Entry Address	Street	PERSONEMERGENCY CONTACT	CONTACTCAREOF CONTACTBUILDING CONTACTSTREET	Note: each field has 50 characters!

Suburb	Char 80	N	Entry Address	Street2?	PERSONEMERGENCY CONTACT	CONTACTSUBURB	
City/Town	Char 60	Y	Entry Address		PERSONEMERGENCY CONTACT	CONTACTCITY	
Region	Char 60	Y	Entry Address	StateProvince? (Edit Table)	PERSONEMERGENCY CONTACT	CONTACTCOUNTY or CONTACTSTATE	
Country	Int	Y	Entry Address	Country_ID (Edit Table)	PERSONEMERGENCY CONTACT	CONTACTCOUNTRY	
Postal Code	Char 10	Y	Entry Address	ZipPostcode	PERSONEMERGENCY CONTACT	POSTALCODE	
Telephone Number	Char 25	Y	Entry Address	Phone	PERSONEMERGENCY CONTACT	PHONEAREACODE PHONENUMBER	Where PHONETYPE = ??? (Home or Work)
Mobile Phone	Char	N	Entry Address	PhoneMobileCell	PERSONEMERGENCY CONTACT	PHONEAREACODE PHONENUMBER	Where PHONETYPE = 'Mobile'
Email	Char	N	Entry Address	Email	PERSONEMERGENCY CONTACT	EMAIL???	

3.5.4 School Details and NCEA Results

Field Description	Field Type	Req	UAM Record Name	UAM Field Name	SAP Record Name	SAP Field Name	Comments
NSN		Y			SAD_NCEA_S_NZL	SCC_NSN	
School Name					EXT_ORG_TBL	DESCR	
Last Year of School					SAD_NCEA_S_NZL	SAD_UEBS_YEAR	
NCEA level					SAD_NCEA_STDNZL	SAD_NCEA_LEVEL	
Subject					SAD_NCEA_STDNZL	TEST_COMPONENT	

Standard?					SAD_NCEA_STDZNZL	SAD_NCEA_STD_CODE	
Result?					SAD_NCEA_STDZNZL	SAD_NCEA_RESULT	

3.5.5 Affiliations

Field Description	Field Type	Req	UAM Record Name	UAM Field Name	LDAP Record Name	LDAP Field Name	Comments
Student ID					?	EMPLID	
Affiliation?					?	GROUP?	Affiliation values such as APPLICANT, ALUMNI, DOCTORATE, POSTRAG, UNDERGARD

3.5.6 Scholarship Information

Field Description	Field Type	Req	UAM Record Name	UAM Field Name	SAP Record Name	SAP Field Name	Comments
Student ID					RSH_AWDSTAT_ANZ	EMPLID	
Year					RSH_AWDSTAT_ANZ	RSH_OFFER_YEAR	
Status					RSH_AWDSTAT_ANZ	RSH_SCHOLAR_STATUS	e.g. Applied, Active, Offer etc
Description					RSH_SCH_DTL_ANZ	RSH_DESCRFORMAL	Description of Scholarship

3.5.7 Reports

Field Description	Field Type	UAM Record Name	UAM Field Name	Comments
Entry ID	Int	Entry	EntryID	7 character code (sent from IMS)
Legal Name	Char 40	Entry	NameFirst NameOther NameLast	Concatenate Name fields (40 characters each)
Resident Status	Char 50	EntryDetail	ResidentStatus	
Resident Year	Char 50	EntryDetail	ResidentYear	
Enrolment Term	Char 50	EntryDetail	EnrollmentTerm	
Enrolment Status	Char 50	EntryDetail	EnrollmentStatus	
Residence		???		Current Residence
Affiliations	Char 12			

3.5.8 Configuration Data

3.5.8.1 IMS Relationship Values:

Currently the Accommodation application has a free text field for the description of an applicant's relationship to their Emergency Contact. The IMS Emergency Contact is validated against the following 'relationship' values;

Relationship Descriptions

1. Aunt
2. Brother
3. Daughter
4. Employee
5. ExSpouse
6. Father
7. Father-in-Law
8. Flatmate
9. Friend
10. Grandchild
11. Grandfather
12. Grandmother
13. Guardian
14. Mother
15. Mother-in-Law
16. Neighbour
17. Nephew
18. Niece
19. Non-Qualified Adult
20. Other
21. Other Relative
22. Partner
23. Self
24. Sister
25. Son
26. Spouse
27. Uncle

3.5.8.2 Ethnicity

Below is a comparison of the Ethnicity values in the IMS and the current UAM application. UAM will be required to bring their values in line with the IMS.

IMS Value	UAM Value	Comments
Australian	Australian	
British and Irish	British	UAM has these listed separately
Cambodian	Cambodian	
Chinese	Chinese	
Cook Island Maori	Cook Island Maori	
Dutch	Dutch	
Fijian	Fijian	

Filipino	Filipino	
German	German	
Greek	Greek	
Indian	Indian	
	Irish	See above
Italian	Italian	
Japanese	Japanese	
Korean	Korean	
Latin American/Hispanic	Latin American/Hispanic	
	Malaysian	Not in IMS
Middle Eastern	Middle Eastern	
Niuean	Niuean	
North American	North American	
NZ European/Pakeha	NZ European/Pakeha	
NZ Maori	NZ Maori	
No Response		Not in UAM
Other		Not in UAM
Other African	Other African	
Other Asian	Other Asian	
Other European	Other European	
Other Pacific Island	Other Pacific Island	
Other South East Asian	Other South East Asian	
Polish	Polish	
African	South African/African	No South African group in IMS
	South African/European	No South African group in IMS
Samoan		No Samoan group in UAM
South Slav	South Slav	
Sri Lankan	Sri Lankan	
Tokelauan	Tokelauan	
Tongan	Tongan	
Vietnamese	Vietnamese	

3.5.8.3 Citizenship & Residency

In UAM there are currently only 4 Citizenship Groups;

1. NZ Citizen
2. Australia Citizen
3. Permanent Resident
4. Overseas

In the IMS Citizenship equates to the Country Code on an individual's passport – currently there are 255 country codes (per SAP Country table). The residency will be derived from the Citizenship (in the IMS), i.e. New Zealand and Australian citizens will be given residency of NZ and Australia. All other persons will be required to disclose whether or not they are permanent residents or if not, they will be deemed to be 'Overseas'.

3.5.8.4 Address Regions

In UAM there are currently only 16 Regions available against the physical address. These are;

1. Auckland
2. Bay of Plenty
3. Canterbury
4. Gisborne
5. Hawkes Bay
6. International
7. Manawatu Wanganui
8. Marlborough
9. Nelson
10. Northland
11. Otago
12. Southland
13. Taranaki
14. Waikato
15. Wellington
16. West Coast

In the IMS there is no Region validation. Instead, for NZ address there is in-built validation as you enter the address. For some foreign address there is State or County validation based on the country selected.

3.6 Configuration Requirements

Given the difference in some of the values stored in the IMS for Countries, Citizenship and Ethnicity, it will be necessary to change the current edit table values in UAM to be in alignment. Additionally, if the affiliation is to be brought into UAM there may be some configuration required to store these.

3.7 Non-Functional Requirements

3.7.1 Security

With the change to have users sign into the UAM Application using their IMS credentials, the sign-on security within UAM will have to be re-written to accept the IMS ID and passwords. It will be no less secure than it is currently and there should be no need for any change to roles and security profiles within UAM. This will be detailed as part of technical specification.

3.7.2 Performance

A change to master login information and personal and contact data within the IMS adds extra complexity and with it, potential for performance degradation. Any web service or messaging from the IMS to UAM should happen in near-real time, as it does with similar interfaces between the IMS and the AfUE or IMS and SAP. The users should not notice that they are in fact in another system and any transferring between the two should be seamless.

3.7.3 Training

Training will be required for UAM staff in regards to how the IMS should be used by Accommodation Applicants. There may be additional affiliation functionality within UAM that staff need to be trained in also.

3.7.4 User Documentation

This specification will provide the necessary information for staff to understand any new functionality and how the Application process will work once integrated with the IMS.

3.7.5 On-going support and maintenance

The UAM system is currently and will continue to be supported by SMS. The Integration with the IMS will be supported by IT Service.

3.7.6 Technical Approach – API’s and Web Services

The UAM system has a number of Application Programming Interfaces (API) available to load data from external systems. UAM will subscribe to the existing IMS Person message2 using the University’s Enterprise Service Bus (ESB) to create a web service to pass and filter the data coming from the IMS, which will then be processed by the relevant API.

3.8 Testing

3.8.1 Test Scenarios

Req #	Test Scenario	Expected Outcome
1	Add a new Accommodation Application for a new user – not previously registered with the University	Accommodation Application submitted – UAM and IMS are linked using the University ID
2	Modify an Accommodation Application for a new Applicant using IMS credentials to log in	Can access Accommodation Application using IMS login credentials
2	Add an Accommodation Application for a user who has previously filed an application in the AfUE – and does not have all the necessary personal and contact details in the IMS	Can create an Accommodation Application and required fields show up on the personal and contact details pages in the UAM application.
2	Add an Accommodation Application for a user who was a Friend of the university and already has an University ID and password	Can create an Accommodation Application and required fields show up on the personal and contact details pages in the UAM application.
2	Change some personal details for an Applicant while completing step1 of the UAM application	Personal detail changes can be made from using the link to the IMS. Upon save the user is returned to the UAM Accommodation Application where the changes are reflected on the personal Details Page.
2	Change some contact details for an Applicant while completing step2 of the UAM application	Contact detail changes can be made from using the link to the IMS. Upon save the user is returned to the UAM Accommodation Application where the changes are reflected on the Contact Details Page.
3	Change some personal details for an Applicant directly in the IMS	Personal detail changes are sent to UAM and update the database.
3	Change some contact details for an Applicant directly in the IMS	Contact detail changes are sent to UAM and update the database.
4	Change an applicant’s affiliations from applicant to student	Personal detail changes are sent to UAM and update the database.

4,5	Remove an accommodation applicant's 'applicant' affiliation in SAP, i.e. change their Programme Status to ensure it is NOT one of the following; AD(Approved) AP(Pending) PM(Prematriculant) WT(Waitlisted) Then run the Affiliation Report	Personal detail changes are sent to UAM and update the database. The report runs successfully and shows the applicant whose status has changed.
4,6	Drop a student (who is currently in a University Residence) from their programme of study. Then run the Affiliation Report	Personal detail changes are sent to UAM and update the database. The report runs successfully and shows the applicant who has been dropped.
11	Create an application for a NCEA student	The Education page of the application will not ask for secondary school details
11	Create an application for a CIE student	The secondary school details and results questions on the Education page of the application will be displayed
10	Upload a photo for an accommodation applicant, in the ID card system	A photo will be sent to the UAM database for an existing applicant
12	Enter a scholarship application in SAP for a person who has an active accommodation application.	Scholarship information will be passed from SAP into the UAM database.

