

IP TEL COMMPILOT

Voicemail Provisioning User Guide

September 2018

CONTENTS

INTRODUCTION.....	2
OVERVIEW	2
IMPORTANT NOTE PRIOR TO PROCEEDING	2
IP TEL MANAGER PORTAL.....	3
LOGIN TO GROUP.....	3
LOGIN TO USER.....	3
ACTIVATE VOICE MESSAGING	4
VOICEMAIL PORTAL	5
RESULTS.....	5
VOICEMAIL WEB SERVICE	6
HTTPS://WWW.VOCUSIPTEL.COM.AU/VM-USERCREATION-WS/.....	6
INPUT – HTTP POST REQUEST.....	6
OUTPUT – XML DOCUMENT	6
WEB SERVICE EXAMPLE.....	6
INPUT.....	6
OUTPUT.....	7
PROGRAMMATIC VOICEMAIL PROVISIONING.....	9
USING JAVA	9
COMMAND LINE VOICEMAIL PROVISIONING.....	11
USING CURL	11
ADDING EXTRA VOICEMAIL SERVICES.....	12
ADDING NOTIFICATION OF VOICEMAIL TO AN EMAIL ADDRESS.....	12
ADDING ANOTHER VOICEMAIL FORWARDING TO EMAIL	12
TRANSFER TO CALL ON 0.....	13

INTRODUCTION

This document is intended for resellers who provision voicemail users on IP Tel Manager.

There are three options available to resellers to provision voicemail for their users. These are:

- > Voicemail forwarded to the users' email address
- > Voicemail forwarded to the users' handset
- > Voicemail forwarded to both the users' email and handset

Voicemail that is forwarded to the users' email address is sent directly from IP Tel manager to the users' email. Voicemail that is forwarded to the users' phone is kept on IP Tel's voicemail servers for retrieval by telephone.

To improve security between IP Tel Manager and IP Tel's voicemail servers, we have developed a new and stronger authentication mechanism. This new process authenticates the user account and password credentials before the voicemail server returns the voicemail messages back to the user. Correct password generation of user accounts can only be made by using the services described in the document.

Resellers that want to forward voicemail to the users' handset should only use the services provided in the document and not use the IP Tel Manager portal or the Open Client Interface – Provisioning (OCI-P) directly.

OVERVIEW

This document describes the Voicemail Provisioning interfaces. It covers the following topics:

- > Voicemail forwarding to users' email using the IP Tel Manager Portal
- > Voicemail forwarding to users' handset using the Voicemail Provisioning Tool
- > Voicemail forwarding to users' handset using the Voicemail Provisioning Web Service
- > Examples of using the Voicemail Provisioning Web Service
- > Programmatically using Java
- > Command Line using cURL
- > Adding extra voicemail services

IMPORTANT NOTE PRIOR TO PROCEEDING

The Voicemail Provisioning Tool and the Voicemail Provisioning Web Service should only be used to provision users who currently have no voicemail forwarding to handset. Do not use these services for users with voicemail forwarding to handset already provisioned as they will lose all their previous voicemails and be provisioned to a new voicemail account on IP Tel's voicemail servers.

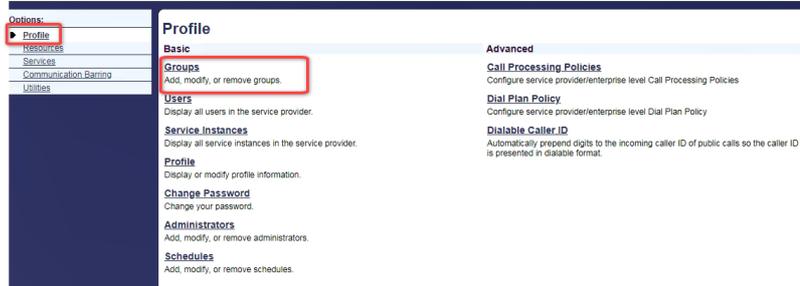
IP TEL MANAGER PORTAL

Voicemail forwarding to email can be directly provisioned in IP Tel Manager.

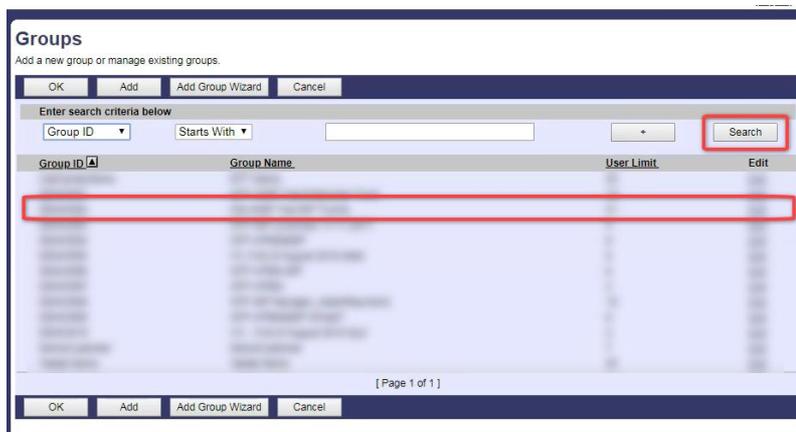
LOGIN TO GROUP

Login to Vocus IP Tel Manager.

1. Click **Profile**.
2. Click **Groups**.



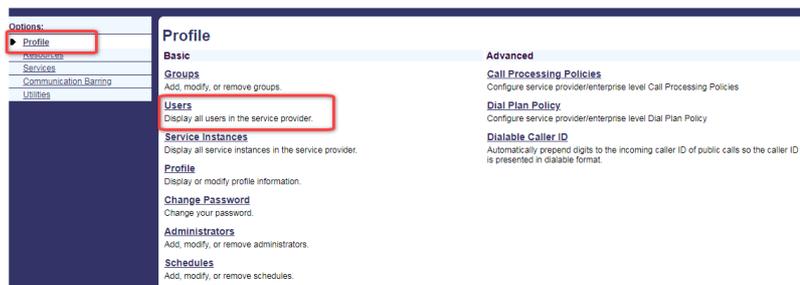
3. Click **Search** to display a list of Groups.
4. Click **Edit** on the required Group.



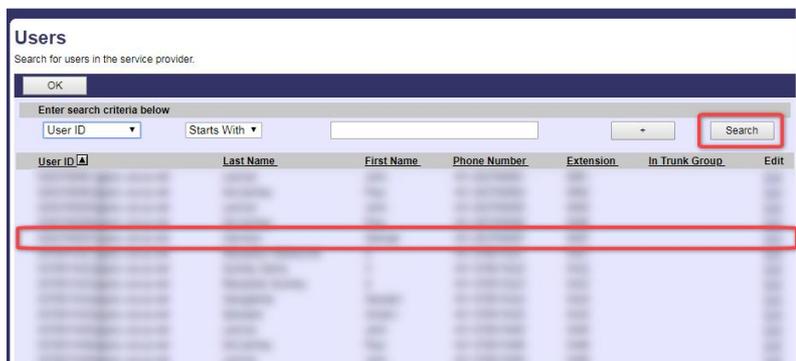
LOGIN TO USER

On the *Group > Profile* menu page:

1. Click **Users**.



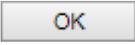
2. Click **Search** to display a list of users in the group.
3. Click **Edit** or any item on the row for the user.

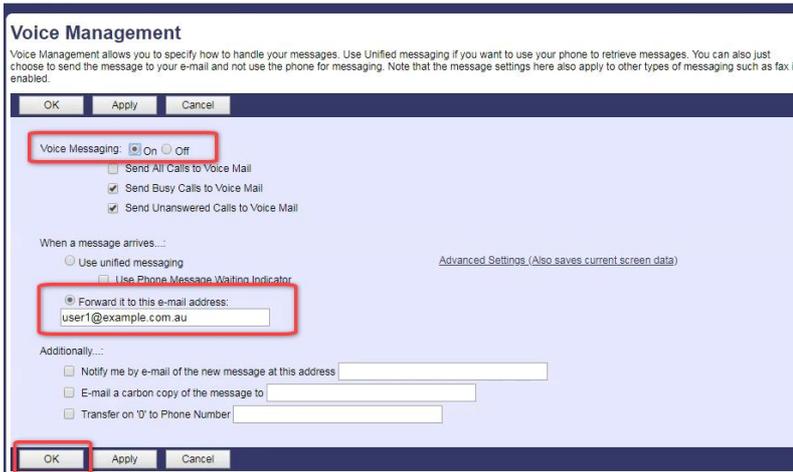


ACTIVATE VOICE MESSAGING

1. Click **Messaging**.
2. Click **Voice Management – Off/On**.



3. Click the **Voice Messaging On** radio button.
4. Click the **Forward it to this e-mail address** radio button.
5. Enter the required email address.
6. Click .



VOICEMAIL PORTAL

The Voicemail provisioning portal allows for the manual provisioning of Voicemail forwarding to the handset. Resellers can use this service if they want to provision a couple of users at a time or to copy and paste user IDs from a plain text file or spread sheet. This portal is located at the following URL:

<https://www.vocusiptel.com.au/vm-usercreation-ws/>

The Admin username and passwords are the same as for the Vocus IP Tel Manager.

1. Enter the Admin Username
2. Enter the Admin Password
3. Enter the User ID's of the users requiring voicemail forwarding to handset to be provisioned (one User ID per line)
4. Click 



The screenshot shows the 'IP Tel Voicemail Provisioning Tool' interface. At the top is the VOCUS communications logo. Below the logo is the title 'IP Tel Voicemail Provisioning Tool'. There are two input fields: 'Admin Username' and 'Admin Password', both highlighted in yellow. Below these fields are three buttons: 'Create Voicemail Accounts', 'Reset Voicemail Accounts', and 'Delete Voicemail Accounts'. Underneath is a section titled 'Create Voicemail Accounts' with a 'User ID(s)' label and a text area containing four example user IDs: user1@reseller.example.com.au, user2@reseller.example.com.au, user3@reseller.example.com.au, and user4@reseller.example.com.au. A 'Create Accounts' button is located at the bottom right of this section. At the very bottom of the interface is a 'Results' label.

RESULTS

Results for the creation will be displayed on screen:

- > If the user is created an "OK" will be listed against each user.
- > An error message will be displayed against any user where creation fails.
- > If the Admin details fail to authenticate an invalid login message will display.

VOICEMAIL WEB SERVICE

For resellers that would like to programmatically provision their users' voicemail forwarding to handset, there is a web service available. This web service can also be used for OSS/BSS system integration. The web service is located at the following URL:

<https://www.vocusiptel.com.au/vm-usercreation-ws/>

INPUT – HTTP POST REQUEST

TYPE	VALUE	DESCRIPTION
Request Method	POST	This Web Service will only accept HTTP POST requests. Any other requests such as GET or PUT request methods will return an error.
Authentication Type	BASIC	You must provide your Vocus IP Tel Manager account username and password through BASIC authentication. Please consult your programming language API to find out how to add BASIC authentication to your web service request. You will receive authentication errors if you do not add your username and password as a BASIC authentication
POST Data	usernames	The list of Vocus IP Tel Manager User IDs that require voicemail forwarding to handset provisioning separated by the newline character. Please ensure that the full username with domain is entered. For example, user1@reseller.example.com.au

OUTPUT – XML DOCUMENT

TAG NAME	DESCRIPTION
Results	Root element of the xml document. Will contain one to many result elements
Result	Child element of results. Encapsulates the name and status of each provisioning action.
Name	Child element of result and contains the name of either the user ID that was entered for provisioning or an error operation that occurred before provisioning.
Status	Child element of result and contains the status of the operation performed. This value will either be OK meaning the provisioning of the user ID was successful or Error: followed by an error message explaining why the error occurred

WEB SERVICE EXAMPLE

INPUT

username = provisioning@reseller.example.com.au

password = secret

usernames = user1@reseller.example.com.au, user2@reseller.example.com.au, user3@reseller.example.com.au, user4@reseller.example.com.au, user5@reseller.example.com.au

Authorization Basic cHJvdmlzaW9uaW5nQHJlc2VsbGVyLmV4YW1wbGUuY29tLmF1OnNIY3JldA==

usernames=user1%40reseller.example.com.au%0D%0Auser2%40reseller.example.com

.au%0D%0Auser3%40reseller.example.com.au%0D%0Auser4%40reseller.example.com.

au%0D%0Auser5%40reseller.example.com.au

OUTPUT

All users provisioned successfully

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<results xmlns:ns2="C">
<result>
<name>user1@reseller.example.com.au</name>
<status>OK</status>
</result>
<result>
<name>user2@reseller.example.com.au</name>
<status>OK</status>
</result>
<result>
<name>user3@reseller.example.com.au</name>
<status>OK</status>
</result>
<result>
<name>user4@reseller.example.com.au</name>
<status>OK</status>
</result>
<result>
<name>user5@reseller.example.com.au</name>
<status>OK</status>
</result>
</results>
```

Invalid user or another error on one or more User ID's entered

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<results xmlns:ns2="C">
<result>
<name>user1@reseller.example.com.au</name>
<status>
Error: [Error 4008] invalid user: user1@reseller.example.com.au
</status>
</result>
<result>
<name>user2@reseller.example.com.au</name>
<status>OK</status>
</result>
<result>
<name>user3@reseller.example.com.au</name>
<status>OK</status>
</result>
<result>
<name>user4@reseller.example.com.au</name>
```

```
<status>OK</status>
</result>
<result>
<name>user5@reseller.example.com.au</name>
<status>OK</status>
</result>
</results>
```

Authentication error

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<results xmlns:ns2="C">
<result>
<name>Authentication</name>
<status>
ERROR: [Error 4007] Invalid login ID: provisioning@reseller.example.com.au
</status>
</result>
</results>
```

PROGRAMMATIC VOICEMAIL PROVISIONING

USING JAVA

```

/*
 *      VoicemailAccountProvisioning.java
 *
 *      Copyright 2012 Amcom Telecommunications Limited.
 *
 *      Licensed under the Apache License, Version 2.0 (the "License");
 *      you may not use this file except in compliance with the License.
 *      You may obtain a copy of the License at
 *
 *      http://www.apache.org/licenses/LICENSE-2.0
 *
 *      Unless required by applicable law or agreed to in writing, software
 *      distributed under the License is distributed on an "AS IS" BASIS,
 *      WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
 *      See the License for the specific language governing permissions and
 *      limitations under the License.
 */

import java.io.BufferedReader; import java.io.BufferedWriter; import java.io.IOException; import
java.io.InputStreamReader;
import java.io.OutputStreamWriter;
import java.io.UnsupportedEncodingException; import java.net.MalformedURLException; import java.net.URL;
import java.net.URLConnection; import java.net.URLEncoder;

import org.apache.commons.codec.binary.Base64; public class VoicemailAccountProvisioning {
public static void main(String[] args) {
// The webservice URL
String webserviceURL = "https://www.ipsystems.com.au"
+ "/vm-usercreation-ws/rest/createvmusers";

// Change to your Amcom IP Tel Manager username
String username = "provisioning@reseller.example.com.au";

// Change to your Amcom IP Tel Manager password String password = "secret";

// Change to user ID's you want to provision voicemail accounts for String[] usernameList = {
"user1@reseller.example.com.au",
"user2@reseller.example.com.au", "user3@reseller.example.com.au", "user4@reseller.example.com.au",
"user5@reseller.example.com.au" };

BufferedReader reader = null; BufferedWriter writer = null;

try {
// Puts a newline character between each username as required by
// the web service. Does not put a line separator character after
// the final username.
StringBuilder = new StringBuilder(); for (int i = 0; i < usernameList.length; i++) {
stringBuilder.append(usernameList[i]); if (i != (usernameList.length - 1)) {
stringBuilder.append(System.getProperty("line.separator"));
}
}

String usernames = stringBuilder.toString();

// Base64 encode the username + : + password as required by BASIC
// authentication. Uses Apache's commons-codec 1.6 library available
// at http://commons.apache.org/codec String auth = username + ":" + password;
String authHash = Base64.encodeBase64String(auth.getBytes("UTF-8")); String postData = "usernames="
+ URLEncoder.encode(usernames, "UTF-8");

URL url = new URL(webserviceURL);

```

```

URLConnection connection = url.openConnection(); connection.setDoOutput(true);
// add BASIC authentication to the web service request connection.setRequestProperty("Authorization", "Basic " +
authHash);

// writes the POST data to the output stream so that the webservice
// can retrieve the list of user ID's
writer = new BufferedWriter(new OutputStreamWriter( connection.getOutputStream()));
writer.write(postData); writer.close();
writer = null;

String line = null;
stringBuilder = new StringBuilder();
// create a stream to receive response from the webservice. reader = new BufferedReader(new InputStreamReader(
connection.getInputStream()));

// append the response to a string buffer while ((line = reader.readLine()) != null) {
stringBuilder.append(line); stringBuilder.append(System.getProperty("line.separator"));
}

reader.close(); reader = null;

// display the buffer System.out.println(stringBuilder.toString());
} catch (UnsupportedEncodingException e) { e.printStackTrace();
} catch (MalformedURLException e) { e.printStackTrace();
} catch (IOException e) { e.printStackTrace();
} finally {
// close all input/output streams if an exception occurred. if (writer != null) {
try {
writer.close();
} catch (IOException e) { e.printStackTrace();
}
writer = null;
}
if (reader != null) { try {
reader.close();
} catch (IOException e) { e.printStackTrace();
}
reader = null;
}
}
}
}
}

```

Output would reflect the xml document examples as shown above, 5.3.2 Output.

COMMAND LINE VOICEMAIL PROVISIONING

USING CURL

cURL is a command line program that is used in both MS Windows and *nix environments to send and receive HTTP requests. To send a POST request with BASIC authentication and username data you could do the following:

```
curl --user <username>:<password> --data usernames=<list of usernames>
https://www.ipsystems.com.au/vm-usercreation-ws/
```

<username> is the Amcom IP Tel Manager username assigned to you

<password> is the Amcom IP Tel Manager password assigned to you

<list of usernames> is the newline separated list of Amcom IP Tel manager user IDs that require voicemail forwarding to handset provisioning.

Please note: In certain versions of cURL, you may have to manually URL encode the “@” and the newline character(s). @ becomes %40, Carriage Return Line Feed (Windows) becomes %0D%0A or Line Feed (*nix) becomes %0D.

username = provisioning@reseller.example.com.au

password = secret

usernames = user1@reseller.example.com.au, user2@reseller.example.com.au,
user3@reseller.example.com.au, user4@reseller.example.com.au, user5@reseller.example.com.au

```
curl --user provisioning@reseller.example.com.au:secret --data
usernames=user1%40reseller.example.com.au%0Auser2%40reseller.example.com.au
%0Auser3%40reseller.example.com.au%0Auser4%40reseller.example.com.au%0Auser
5%40reseller.example.com.au https://www.ipsystems.com.au/vm-usercreation-
ws/rest/createvmusers
```

Output would reflect the xml document examples as shown above, refer Output – XML document on page 6.

ADDING EXTRA VOICEMAIL SERVICES

Once a user has voicemail forwarded to handset or voicemail forwarding to email provisioned, other voicemail services can be included as well. You can add one or all of these extra voicemail services.

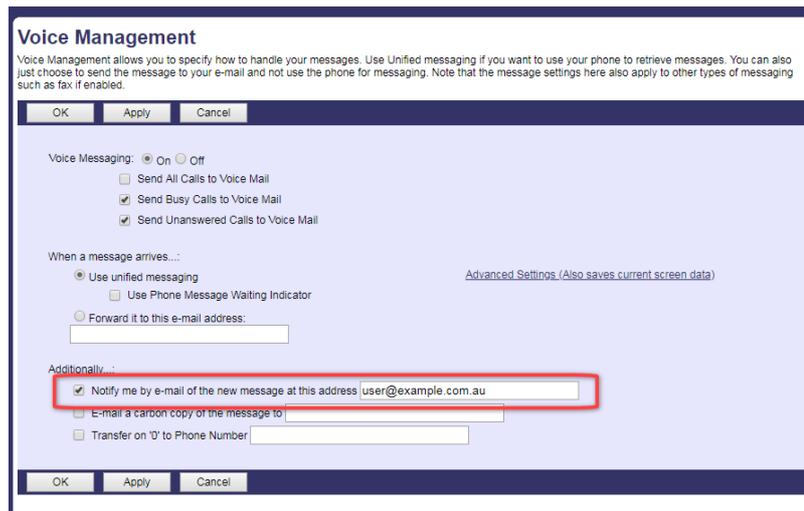
ADDING NOTIFICATION OF VOICEMAIL TO AN EMAIL ADDRESS

The user can receive an email notification that a voice message has been sent to the user. To provision this service, please do the following:

Follow the steps listed in IP Tel Manager Portal on page 3 to reach the voice management page of the user.

1. Click the **Notify by e-mail of the new message at this address** check box and enter the e-mail address of where you would like to send the voicemail notification.

2. Click .



Voice Management

Voice Management allows you to specify how to handle your messages. Use Unified messaging if you want to use your phone to retrieve messages. You can also just choose to send the message to your e-mail and not use the phone for messaging. Note that the message settings here also apply to other types of messaging such as fax if enabled.

OK Apply Cancel

Voice Messaging: On Off

Send All Calls to Voice Mail

Send Busy Calls to Voice Mail

Send Unanswered Calls to Voice Mail

When a message arrives...:

Use unified messaging [Advanced Settings \(Also saves current screen data\)](#)

Use Phone Message Waiting Indicator

Forward it to this e-mail address:

Additionally...:

Notify me by e-mail of the new message at this address

E-mail a carbon copy of the message to _____

Transfer on '0' to Phone Number _____

OK Apply Cancel

ADDING ANOTHER VOICEMAIL FORWARDING TO EMAIL

The user can have an additional voicemail forwarded to email as a carbon copy. To provision this service, please do the following:

Follow the steps listed in IP Tel Manager Portal on page 3 to reach the voice management page of the user.

1. Click the **E-mail a carbon copy of the message to** check box and enter the e-mail address of where you would like to send the carbon copy.

2. Click .



Voice Management

Voice Management allows you to specify how to handle your messages. Use Unified messaging if you want to use your phone to retrieve messages. You can also just choose to send the message to your e-mail and not use the phone for messaging. Note that the message settings here also apply to other types of messaging such as fax if enabled.

OK Apply Cancel

Voice Messaging: On Off

Send All Calls to Voice Mail

Send Busy Calls to Voice Mail

Send Unanswered Calls to Voice Mail

When a message arrives...:

Use unified messaging [Advanced Settings \(Also saves current screen data\)](#)

Use Phone Message Waiting Indicator

Forward it to this e-mail address:

Additionally...:

Notify me by e-mail of the new message at this address _____

E-mail a carbon copy of the message to

Transfer on '0' to Phone Number _____

OK Apply Cancel

TRANSFER TO CALL ON 0

The user can be dialled at a specified number if the caller gets the voicemail prompt and presses 0 while leaving a message. To provision this service, please do the following:

Follow the steps listed in IP Tel Manager Portal on page 3 to reach the voice management page of the user.

1. Click the **Transfer on '0' to Phone number** check box and enter the phone or mobile number of where the user would like to be contacted.

2. Click .



Voice Management

Voice Management allows you to specify how to handle your messages. Use Unified messaging if you want to use your phone to retrieve messages. You can also just choose to send the message to your e-mail and not use the phone for messaging. Note that the message settings here also apply to other types of messaging such as fax if enabled.

OK Apply Cancel

Voice Messaging: On Off

Send All Calls to Voice Mail

Send Busy Calls to Voice Mail

Send Unanswered Calls to Voice Mail

When a message arrives...:

Use unified messaging [Advanced Settings \(Also saves current screen data\)](#)

Use Phone Message Waiting Indicator

Forward it to this e-mail address:

Additionally...:

Notify me by e-mail of the new message at this address

E-mail a carbon copy of the message to

Transfer on '0' to Phone Number

OK Apply Cancel