



External OBS

User Manual

Version

1.1

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Support

For assistance, please contact Grapevine: +27 21 702-3333 or email info@vine.co.za.

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1. Reference

1.1. Terms and definitions

Term	Definition								
Affiliate	<p>Company that is allowed to use Grapevine’s External OBS to request funds from mobile phone users’ accounts in payment for content.</p> <p>When companies register with Grapevine, we say that they are ‘provisioned’ to use the External OBS.</p>								
Affiliate Administrator	Affiliate employee who has a user profile allowing them to manage services, create user profiles and view reports on their company’s use of the system.								
Content	Products and services that are sold to mobile phone users, e.g., ringtones, screensavers, games, daily weather reports and stock market notifications, etc.								
Content Owner	Owner of content that is sold to mobile phone users.								
CSV (Comma Separated Values) file	<p>Text file where each field is distinguished from the next by a comma. The commas indicate to a spreadsheet program (for instance, MS Excel) where each field starts and ends so it can divide the data into columns, e.g.:</p> <div style="text-align: right; margin-bottom: 10px;">Text file saved in .csv format</div> <pre>Surname,First Name,Area Code, Telephone Bloggs,Joe,(021),5553456</pre> <div style="text-align: right; margin-bottom: 10px;">Spreadsheet application</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Surname</th> <th>First Name</th> <th>Area Code</th> <th>Telephone</th> </tr> </thead> <tbody> <tr> <td>Bloggs</td> <td>Joe</td> <td>(021)</td> <td>5553456</td> </tr> </tbody> </table> <p>A new line in the text file represents a new row in the spreadsheet.</p> <p>Reports from the External OBS can be exported to a CSV file where the data can be custom-sorted and filtered.</p>	Surname	First Name	Area Code	Telephone	Bloggs	Joe	(021)	5553456
Surname	First Name	Area Code	Telephone						
Bloggs	Joe	(021)	5553456						
Debit Request	Method used to request funds from mobile phone users’ accounts in payment for content they have bought.								
EBB (Event Based Billing)	MTN’s preferred name for the Online Billing System (OBS).								
MSISDN	Mobile Subscriber International Station Directory Number / Mobile Subscriber Integrated Services Digital Network Number).								

	<p>Number format used to uniquely identify a mobile phone number internationally.</p> <p>It is created by replacing the '0' of the mobile phone number with the country code, e.g.: '27735555555', where '27' is the country code for South Africa.</p>
<p>OBS (Online Billing System)</p>	<p>A mechanism used to take money from mobile phone users' accounts in payment for content.</p> <p>The External OBS lets companies outside Grapevine use the OBS to take money from mobile phone users' accounts directly. These companies need to first register with Grapevine as Affiliates of the system.</p> <p>* OBS is a term used by Cell C and Vodacom. EBB is the term preferred by MTN.</p>

2. What is the External OBS?

Grapevine’s External OBS (Online Billing System) allows you, registered as an Affiliate, to use Grapevine’s **web service** to request funds from networks in payment for content that mobile phone users have purchased.

The **web service** can be accessed using a SOAP call: the **ObsDebitRequest_Ext** service method. You can view the full WSDL for this method in **Appendix D** on page 27.

You can monitor your requests, and view reports and revenue details for your requests via the External OBS **web site**.

Note:
All the information you need to access and use the External OBS can be found in the email you receive from Grapevine when you register.

Below is a graphical overview of the External OBS and how the **web service** and **web site** work together.

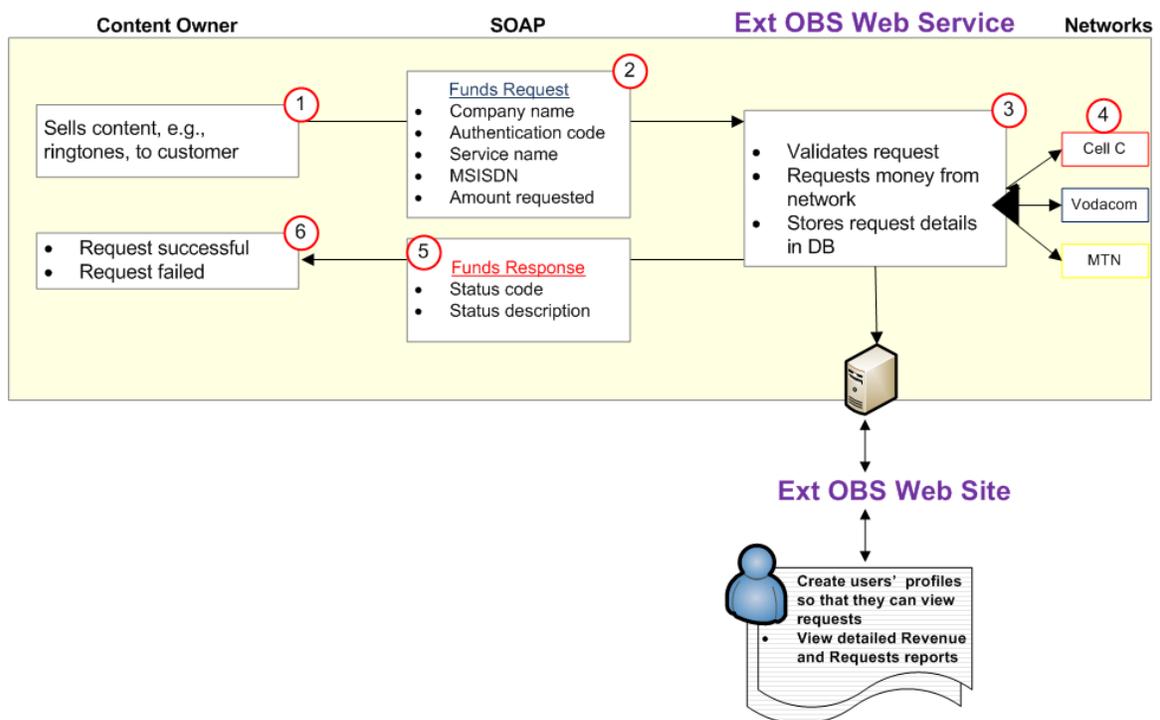


Figure 1 – System Overview

Now let’s take a detailed look at how you will use this service.

3. How do I use the External OBS Web Service?

You will use the External OBS web service to request funds from mobile phone users' accounts in payment for content that they have bought from you.

3.1. What do I need to access the External OBS web service?

To access the web service, you need:

- to be registered as an External OBS Affiliate with Grapevine  **Affiliate**
 Company that is allowed to use Grapevine's External OBS to request funds from mobile phone users' accounts in payment for content.
- authentication details for submitting requests to the web service
 These will be sent to you by email from Grapevine when you sign up for the External OBS service.
- the WSDL for these services
 The full web service definition is available in WSDL format in **Appendix D – Web Service Definition** on page 27.
- the web service URL
 This will be sent to you by email from Grapevine when you sign up for the External OBS service.

Note:

If you've mislaid your login information or authentication details, please contact Grapevine Support. Our contact details are in the **Support** section of this manual on page 23.

3.2. How do I request funds from a network?

The process of requesting funds is quick and easy:

Step 1: you will make a Debit Request call for funds (see **Step 1 - Submit a Debit Request** on page 7).

Step 2: the web service will return a response (see **Step 2 - Receive a Debit Request Response** on page 9).

* Please take careful note of the status code in the Debit Request response (see **Debit Request Status Codes** on page 9). If your request is unsuccessful, you will need to decide whether you want to retry the request. Costs for funds requests will be based on your commercial agreement with Grapevine.

Read more



Insufficient Funds and Re-attempts to Request Funds

It is essential for users of the External OBS to understand the process for handling re-attempts to request funds from mobile phone users who have insufficient funds in their accounts.

Please familiarise yourself with **Appendix A – Insufficient Funds and Re-attempts** on page **24**.

3.2.1. Step 1 - Submit a Debit Request

To request funds, you must call the Debit Request method. Below, the parameters you need to submit are tabled, followed by an example of a Debit Request.

* Input parameters are usually case-sensitive, e.g., Affiliate code.

Debit Request Method				
Method name: ObsDebitRequest_Extra				
Field	Description	Format	Examples	Supplied by?
Service name	Unique name of the content offered by your company	string	<ul style="list-style-type: none"> • ringtones • classic screenshots • Card Division 	GVI
Authentication code	Unique security code	string	D63A3F991C9683011 2D60701D7	GVI
Affiliate code	Unique company code	string	Acme_001	GVI
MSISDN	Mobile phone number in international format, where the '0' prefix for a mobile phone number is replaced by the country code, e.g., '27' for South Africa	string	27767239116	Affiliate

Debit Request Method				
Method name: ObsDebitRequest_Extra				
Field	Description	Format	Examples	Supplied by?
Vodacom Service ID	This is a Vodacom requirement that enables the network to identify the service (previously all services were tagged as 'Grapevine' services). Grapevine must apply for a Service ID for each new service it implements. This is then tested and deployed by Vodacom. The Service ID will help Grapevine to identify the funds associated with a service when Vodacom sends a billing report.	string	SA Redemptorists	GVI
Amount	Amount to be taken from the mobile phone user's account. * Allowed amounts that may be requested from the networks are provided in Appendix C – Allowed Amounts on page 26.	2-place decimal (Any digits after the first two decimal places will be ignored)	0.50 10.00	Affiliate
Daily Limit Amount	This figure limits the amount of funds that can be requested per day by an Affiliate. The default is R100. In this example, if a request costs R5, only 20 requests could be made per day). The Daily Limit Amount can only be changed by a Grapevine administrator. It has been implemented to prevent user error selecting a higher rate.	Decimal (in rands)	100	Affiliate

Table 1 – Debit Request Method

```
ObsDebitRequest_Extr(ringtones, D63A3F991C96830112D60701D7, Acme_001,
27767239116, 5.00)
```

Example 1 - Debit Request

3.2.2. Step 2 - Receive a Debit Request Response

Each Debit Request generates a Debit Request response. Below is a sample Debit Request response.

After you receive a response, please check the status code to see if your request was successful. Debit Request response status codes are tabled at the end of this section with explanations about what they mean.

Debit Request Response		
Header		
<pre><?xml version="1.0" encoding="utf-8"?> <ExternalObsStatus xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://196.36.190.168/"></pre>		
Parameter	Example	Description
Status code	0	Please see Debit Request Status Codes on page 9.
Status description	Authorisation failure	Please see Debit Request Status Codes on page 9.

Table 2 – Debit Request Response

```
<?xml version="1.0" encoding="utf-8"?>
<ExternalObsStatus          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://196.36.190.168/">
  <Ex_StatusCode>0</Ex_StatusCode>
  <Ex_StatusDescription>Authorisation failure.</Ex_StatusDescription>
</ExternalObsStatus>
```

Example 2 - Debit Request Response

Debit Request Status Codes		
Status Code	Status Description	What does it mean?

Debit Request Status Codes		
Status Code	Status Description	What does it mean?
0	Authentication failed	Please check your Debit Request parameters. It is possible you entered an invalid service name, authentication code or service code.
1	Funds authorised	Funds have been successfully taken from user's mobile phone account.
2	Funds request unsuccessful - insufficient funds.	Cell phone user has insufficient funds for the Debit Request. You may retry the request based on the rules specified in Appendix A – Insufficient Funds and Re-attempts on page 24.
3	Amount requested exceeds maximum allowed for this service.	Each service has a maximum amount that may be requested.
4	Funds request failed - network problem	Please try again later. Contact Grapevine Support if this problem persists. Our contact details are in the Support section of this manual on page 23.
5	Service is disabled	Contact Grapevine Support if a service has been disabled. Our contact details are in the Support section of this manual on page 23.
6	Maximum daily attempts for this MSISDN has been reached	If you receive a response with status code = 2 (insufficient funds), you may only resubmit the request twice on a given day. Please see Appendix A – Insufficient Funds and Re-attempts on page 24.
7	Invalid MSISDN	Please check your MSISDN parameters.
8	Minimum amount should be 0.50	No amounts less than 0.50 are allowed.
9	Not an allowed amount for MTN	Allowed amounts that may be requested from the networks are provided in Appendix C – Allowed Amounts on page 26.
10	Unknown error	Please try again later. Contact Grapevine Support if the problem persists so that they can investigate the problem. Our contact details are in the Support section of this manual on page 23.
11	Timed out, please try again later	Please try again later. Contact Grapevine Support if this problem persists. Our contact details are in the Support section of this manual on page 23.
12	Delivery confirmation failed	Grapevine has made more than one attempt to reach the network to confirm delivery of your content and been unsuccessful. Please contact Grapevine Support. Our contact details are in the Support section of this manual on page 23.

Table 3 – Debit Request Status Codes**Notes:**

- A funds request may not exceed R50.00 or be less than R0.50 for most networks. Allowed amounts that may be requested from the networks are provided in **Appendix C – Allowed Amounts** on page 26.
- An Affiliate can make a maximum of three requests a day (two retries) to an MSISDN which does not have sufficient funds. Please see **Appendix A – Insufficient Funds and Re-attempts** on page 24.

What next?

- You can view reports detailing your Debit Requests on the web site.
- If there was a network failure or unexpected error, please contact Grapevine. Our contact details are in the **Support** section of this manual on page 23.

3.3. Web service FAQs**How many times may I resubmit an OBS request?**

Because the networks charge for OBS requests, if the mobile phone user has insufficient money in their account (status code = 2), you may only resubmit a request twice. This means that you may request funds for content from a specific MSISDN a maximum number of 3 times a day. You will be charged for every unsuccessful request as per the commercial agreement with Grapevine.

How can I see how much money I have made?

*You can see how much money you have requested via the **View OBS Revenue** function on the External OBS web site. Your company's share of the OBS revenue will be determined based on the reported OBS revenue, the commercially agreed revenue share with Grapevine and the actual payout by the mobile networks.*

Read more ...[OBS Revenue Calculations](#)

It is essential for users of the External OBS to understand how revenue owing to them is calculated.

Understanding these requirements is a specific commercial condition of using the External OBS. Please familiarise yourself with **Appendix B – OBS Revenue Calculations** on page 25.

4. How do I use the External OBS Web Site?

The External OBS web site is a reporting mechanism. You can use it to view all the requests for funds made by your company and whether they were successful or not. You can also see the total amount of money you have requested from different networks.

4.1. What do I need to access the External OBS web site?

To access the web site, you need:

- | | |
|---|--|
| <ul style="list-style-type: none"> • an External OBS username and password | These will be sent to you from Grapevine by email when you sign up for the External OBS service. |
| <ul style="list-style-type: none"> • the URL of the web site | This will be sent to you from Grapevine by email when you sign up for the External OBS service. |

Note:

If you've mislaid your login information or the URL for this service is not working, please contact Grapevine Support. Our contact details are in the **Support** section of this manual on page 23.

4.2. The External OBS Home Page

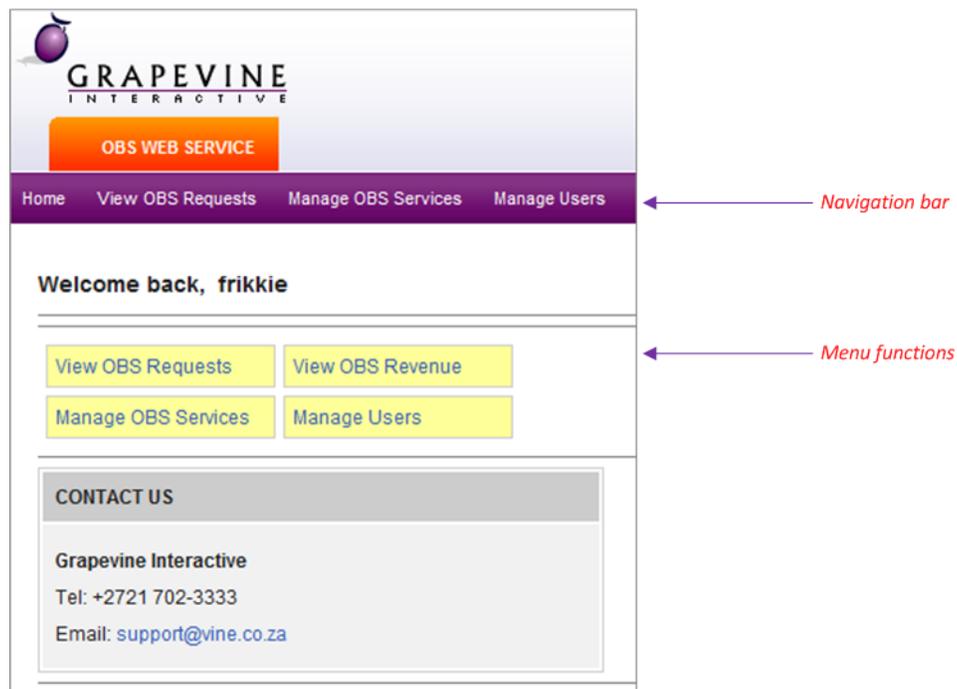


Figure 2 – Home Page

4.3. Overview of web site functions

Function	Description	Who has access to this function?
View OBS Requests	Lists all the requests for funds that your company has made to the networks.	<ul style="list-style-type: none"> • Affiliate administrators can view OBS requests for their company's services. • Users can view the OBS requests for services they have been given permission to view.
View OBS Revenue	Lists the total amount taken from mobile phone users' accounts during a selected time period.	<ul style="list-style-type: none"> • Affiliate administrators can view revenue details for their company's services. • Users can view revenue details for services they have been given permission to view.
Manage OBS Services	Assign users to services and view service details.	<ul style="list-style-type: none"> • Affiliate administrators can view details of their company's services and change the users associated with them. • Users do not have access to this function.
Manage Users	View and update user details.	<ul style="list-style-type: none"> • Affiliate administrators can view and update their company's users' details, and add new users to their company's services. • Users do not have access to this function.

Table 4 – Overview of Web Site Functions

Notes:

- Your home page and the functions to which you have access will vary according to your user status. The following screenshots display all functions that an Affiliate administrator can view but may not necessarily be viewable by all users. Only Affiliate administrators have access to the **Manage Users** and **Manage OBS Services** functions.
- Service and Affiliate details are initially set up by Grapevine administrators.

4.3.1. View OBS Requests

Use this function to report on all the debit requests that your company has made to the networks.

Who has access to this function?

- Affiliate administrators can view OBS requests for their company’s services.
- Users can view the OBS requests for services they have been given permission to view.

To View OBS Requests:

1. Select **View OBS Requests** from the **Navigation** bar at the top of the page or from the links on the home page.



In the **Search for OBS Requests** section, you can narrow your search to a specific time period, service and/ or mobile phone number.

1. Use the date picker  to select a **start date and time**.
2. Use the date picker  to select an **end date and time**.
3. Select an **OBS Service** from the drop-down list.
4. If you wish, enter an **MSISDN** (international mobile phone number).
5. Click **Search**.

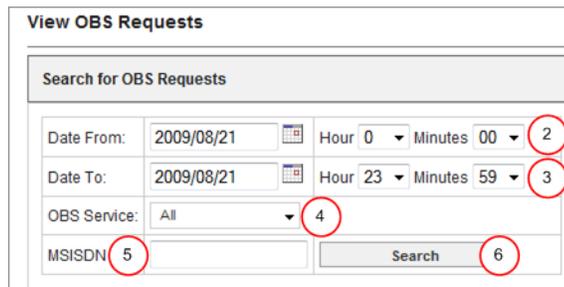


Figure 3 – View OBS Request parameters

7. Click **Export** to send a detailed report of the data to a CSV file where you can filter and sort the results in a spreadsheet application like Excel.



Your report will include one of the following status descriptions.

OBS Web Site Requests Statuses	
Status Description	What does it mean?

OBS Web Site Requests Statuses	
Status Description	What does it mean?
Funds authorised	The funds you requested have been authorised.
Authentication failed	Authentication will fail if you enter an invalid service name, authentication code or service code.
Unsuccessful request	At least one input parameter was invalid. You may have: <ul style="list-style-type: none"> entered an amount that is not allowed (some networks specify the amounts you may request) used an MSISDN that doesn't exist
Invalid MSISDN	You have entered an invalid MSISDN. The number must be in international format where '0' is replaced by the South Africa code '27. Numbers greater than 11 digits will not be processed.
Minimum amount should be 0.50	The networks all specify minimum and maximum request amounts. No amounts less than 0.50 are allowed.
Maximum amount exceeded	Each service has a maximum amount that may be requested based on your OBS application.
Insufficient funds	There are insufficient funds in the account of the mobile phone user. Please refer to Appendix A – Insufficient Funds and Re-attempts on page 24.
Service disabled	Please contact Grapevine. Our contact details are in the Support section of this manual on page 23.
Attempts exceeded for insufficient funds	You have exceeded the daily number of times you can request funds from a mobile phone user with insufficient funds in their account. Please refer to Appendix A – Insufficient Funds and Re-attempts on page 24.

Table 5 – OBS Web Site Requests Statuses

4.3.2. View OBS Revenue

This report shows the total amount of money taken from mobile phone users' accounts over a selected time period.

Read more ...



[OBS Revenue Calculations](#)

It is essential for users of the External OBS to understand how revenue owing to them is calculated.

Understanding these requirements is a specific commercial condition of using the External OBS. Please familiarise yourself with **Appendix B - OBS Revenue Calculations** on page 25.

Who has access to this function?

- Affiliate administrators can view revenue details for their company’s services.
- Users can view revenue details for services they have been given permission to view.

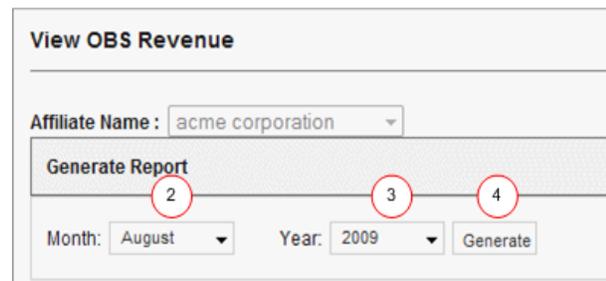
To View OBS Revenue:

1. Select **View OBS Revenue** from the **Navigation** bar at the top of the page or from the links on the home page.



In the **View OBS Revenue** section, you can narrow your search to a specific time period.

2. Select a **Month** from the drop-down list.
3. Select a **Year** from the drop-down list.
4. Click **Generate**.



4.3.3. Manage Users

Use this function to view and update user details. From the **Manage Users** page you can also send notification to a user of their login details.

Who has access to this function?

- Affiliate administrators can view and update their company’s users’ details.
- Users do not have access to this function.

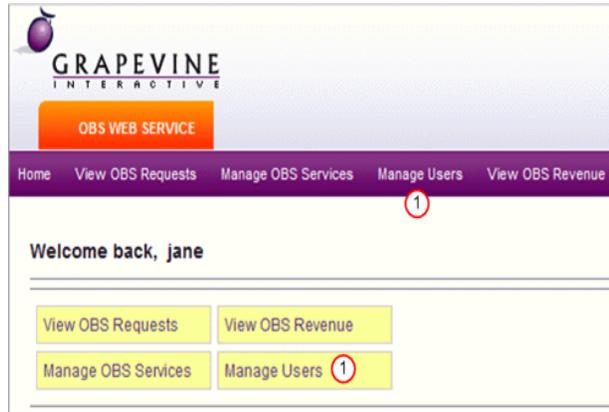
Affiliate administrators can change the following fields:

- first name
- last name
- land line
- mobile
- password
- user status

Affiliate administrators can delete, disable and enable users.

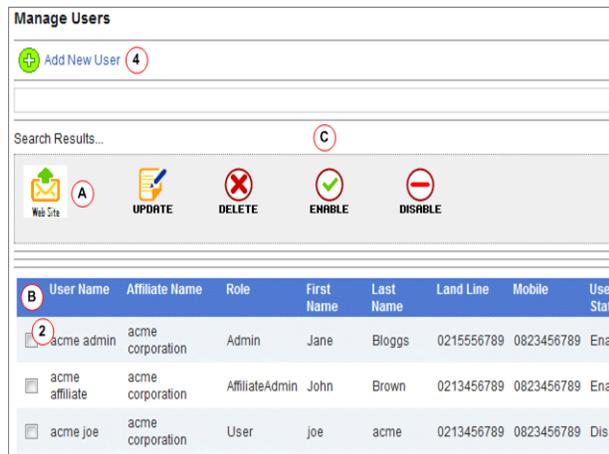
To Manage Users:

1. Select **Manage Users** from the **Navigation** bar at the top of the page or from the links on the home page.



The system lists all users linked to the services that you may view. If you are an Affiliate administration, you will only be able to view the profiles of users at your company.

2. Select the check box next to the user whose details you wish to update.
3. Click **Update**.
4. To add a new user, click **Add New User**.



- A. To send an email to a user with their login details, select the check box next to the name of the user you wish to email and click **Web Site**.
- B. Click on a column heading to sort the users.
- C. To delete, disable or enable a user, select the check box next to the name of a user and then click on the appropriate icon.

5. Enter the details of the new user and then click **Create User**.

All input fields are mandatory and the user name must be unique.

Note:

To find a specific user, click **Manage Users** on the **Navigation** bar, select a search parameter from the drop-down list, enter a search term in the **Search** box, and then click **Find**. To list all users, the **Search** box must be empty.

What next?

You are now ready to link these users to services. To do this, select **Manage OBS Services** from the **Navigation** bar at the top of the page or from the links on the **Home** page.

4.3.4. Manage OBS Services

Use this function to give users permission to view OBS requests and revenue details for their company.

Who has access to this function?

- Affiliate administrators can view details of their company’s services and change the users associated with them.
- Users do not have access to this function.

Affiliate administrators can change the following:

- service descriptions

Affiliate administrators cannot disable, enable or delete services. Please contact Grapevine for assistance with this. Our contact details are in the **Support** section of this manual on page **23**.

Notes:

- You may only assign users to services provided by your company.
- Apart from service descriptions, only Grapevine can change service details.

To Manage OBS Services:

1. Select **Manage OBS Services** from the **Navigation** bar at the top of the page or from the links on the home page.



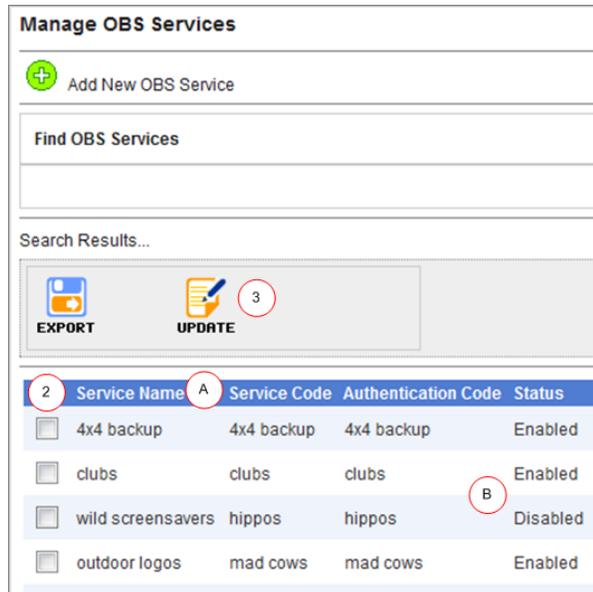
The system lists the services you may view.

2. Select the check box next to the service to which you wish to add a user or from which you wish to remove a user.
3. Click **Update**.

Note:

Only Grapevine administrators may add new OBS services.

- A. Click on a column heading to sort the services.
- B. Only Grapevine administrators can enable or disable services.



Our contact details are in the **Support** section of this manual on page **23**.

4. To add users to a service, in the **Available Users** list box, highlight the user(s) that you wish to add and click **Add**.
5. To remove users from a service, in the **Associated Users** list box, highlight the user(s) that you wish to remove and click **Remove**.

Note:
To select more than one user, press and hold **ctrl**, and click on multiple user names individually.

5. Click **Update Service**.

The screenshot shows the 'OBS Service Details-[Service Name]' window. At the top, there are several input fields: 'Affiliate Name' (acme corporation), 'Service Name' (classic screenshots), 'Description' (classic screenshots), 'Service Code' (SCR-108976-Local), 'Authentication Code' (987123-01), 'Status' (Enabled), and 'Max value' (0.50). Below these fields are two list boxes: 'Associated Users' (6) containing 'acme' and 'jane', and 'Available Users' (5) containing 'acme joe', 'oomkoos', 'acme user', 'acme affiliate', 'jeanpaul', 'John Brown', 'penny', and 'acme admin'. Between the lists are buttons for '<< Add' (5) and 'Remove >>' (6). At the bottom left, there is an 'Update Service' button (7) and a 'Cancel' button.

Note:
To find a specific service, select a search parameter from the drop-down list, enter a search term in the **Search** box, and then click **Find**. To list all services, the **Search** box must be empty.

The screenshot shows the 'Find OBS Services' window. It features a search parameter dropdown menu with options: 'affiliatecode', 'affiliatecode', 'service_name', and 'authenticationcode'. The 'affiliatecode' option is currently selected. To the right of the dropdown is a search input field and a 'Find' button.

4.4. External OBS Reports

You can view two kinds of reports on the External OBS web site:

- OBS Requests reports
- OBS Revenue reports

4.4.1. OBS Requests reports

To view the External OBS Requests report, select **View OBS Requests** from the **Navigation** bar at the top of the page or from the links on the **Home** page.

View OBS Requests

Search for OBS Requests

Date From: 2009/10/02 Hour 0 Minutes 00
 Date To: 2009/10/02 Hour 23 Minutes 59
 OBS Service: 4x4 backup
 MSISDN:

Filter your data by:

- date and time
- service
- a single MSISDN

 **EXPORT** *Export your results to a CSV file which you can view in a spreadsheet like Excel*

Summary Information

Total requests:	4
Total failed:	3
Total success:	0
Total amount successfully authorised:	R 0.00

Summary information gives you a bird's eye view of successful and unsuccessful requests

Click on the column headings to sort your results.

Date	MSISDN	Amount	Status	Affiliate Code	Service Name
2009/10/02 10:46:32 AM	27739771576	50.00	Attempts exceeded for insufficient funds	outdoor	4x4 backup
2009/10/02 09:49:51 AM	27739771576	50.00	Insufficient funds	outdoor	4x4 backup
2009/10/02 09:49:35 AM	27739771576	50.00	Insufficient funds	outdoor	4x4 backup
2009/10/02 09:49:19 AM	27739771576	50.00	Insufficient funds	outdoor	4x4 backup

You are viewing page 1 of 1
4 Results out of 4

A detailed report includes a description of the request Status, Date and Time the request was made, MSISDN, Amount, Affiliate Code, Service Name

Report 1 – OBS Requests Report

4.4.2. OBS Revenue report

To view the OBS Revenue report, select **View OBS Revenue** from the **Navigation** bar at the top of the page, or from the links on the **Home** page.

View OBS Revenue

Affiliate Name : The Outdoor Store ▼

Generate Report

Month: October ▼ Year: 2009 ▼ ← *Select the date parameters for which you'd like to run your report*

Network Revenue Authorised for The Outdoor Store				October 2009
Network	Vodacom	MTN	CellC	Total Amount (R)
Amount	R0.50	R0.00	R0.54	R1.04

View a summary of revenue for all the networks

Click a ServiceName to go to the View OBS Requests page

ServiceName	Vodacom	MTN	CellC	GrandTotal
calls of the wild	R0.00	R0.00	R0.00	R0.00
outdoor logos	R0.00	R0.00	R0.00	R0.00
wild screensavers	R0.50	R0.00	R0.54	R1.04

View a breakdown of revenue for each of the networks

Report 2 – OBS Revenue Report

5. Support

For Grapevine assistance, please call: +27 21 702-3333, or email support@vine.co.za.

Notes:

- In order to be able to submit support requests, you need to ask Grapevine support to add you to our White List. This is a list of e-mail addresses and domain names from which our e-mail blocking program will allow messages.
- The External OBS URL and your login details will have been sent to you by email from Grapevine when you signed up for this service. Please contact us if you have access problems.
- When submitting a request, please ensure you have all your details at hand, including details of the error or problem you are experiencing. This includes any status codes you may have received and a description of what you were doing on the system at the time.

Appendix A - Insufficient Funds and Re-attempts

The following describes what happens when Affiliates repeatedly request funds from mobile phone users who have insufficient funds in their accounts.



It is essential for users of the External OBS to understand and accept the process described below as it is a specific commercial condition of using the External OBS.

When you request funds request from a mobile phone that does not have enough airtime, you will receive a Debit Request response that the mobile phone user has **Insufficient Funds** (status code = 2) (see the **Debit Request Response Codes** table on page 9).

The mobile phone networks charge for funds requests that are unsuccessful. In fact, some of the networks charge a sliding scale for unsuccessful funds requests, where the more unsuccessful attempts there are, the more they charge.

They have implemented this because, when they get an Insufficient Funds status, some OBS users will repeatedly keep requesting funds from a mobile phone in the hope that the phone user will top up their airtime at some point. This practice has put a huge load on the mobile networks' OBS infrastructure and so they are actively discouraging this practice by charging more for higher volumes of unsuccessful funds requests.

Under the terms of use for the Grapevine External OBS, an Affiliate may only attempt 3 times in any one day to request funds from a mobile phone where there are insufficient funds. If more than 3 attempts in one day are made to request funds for a particular mobile phone, then you will receive a response of **Maximum Daily Attempts Limit Reached** (status code = 6) (see the **Debit Request Response Codes** table on page 9).

Please note that you will be charged for all unsuccessful funds requests, whether you receive status code 2 or status code 6.

In order to ensure that you do not pay excessively for unsuccessful attempts, please ensure that you write your application to limit the number of daily retries.

From a consumer-friendly point-of-view, if a consumer repeatedly does not have sufficient funds, it would probably be better to remove that person from your customer list than it would be to 'hound' their mobile phone account for funds.

If an Affiliate is seen to be over-requesting for funds which are unsuccessful, Grapevine has the right to suspend the Affiliate's OBS services.

Appendix B - OBS Revenue Calculations

The following is a description of how the Grapevine calculates the revenue owing to Affiliates after the funds they requested from mobile phone users are authorised.



It is essential for users of the External OBS to understand and accept the calculations described below as it is a specific commercial condition of using the External OBS.

The main use of the External OBS is to allow Affiliates to get payment for their content. While the External OBS reporting interface will indicate clearly what amounts have been requested, the amounts shown are the total funds taken from the mobile phone user's account, and not an indication of the split of revenue between the Affiliate, the network and Grapevine.

The mobile networks have different methods of splitting OBS revenues with Grapevine; these calculations can vary considerably.

Grapevine is committed to making the most accurate revenue reports available to Affiliates who are using the External OBS. However, the result is not always perfect.

For example, under the current OBS from Vodacom, Vodacom first deducts VAT from the total amount and then a so-called "bearer fee" of R0.30. Thereafter, they deduct either 15% in the case of a contract mobile phone, or 24.5% in the case of a pre-paid mobile phone. The problem is that Grapevine has no way to know which mobile numbers are on contract and which numbers are on pre-paid. This means that a completely accurate calculation of exact revenue from each request to Vodacom is not possible. As a result, Grapevine will make best-effort assessments of the revenue from Vodacom and report these to the Affiliates monthly. While this is far from ideal, it is the reality that all OBS service providers are faced with. It also means that **Affiliates are required to agree that this is the case** and that Grapevine's revenue reports will be as accurate as we are able to make them.

Please note that Grapevine will only pay out funds to Affiliates once these have been received by Grapevine from the mobile networks. It is fairly common for networks to delay payment and for revenue disputes to occur. Grapevine will always push to get revenues paid by the networks as soon as possible, but only once Grapevine received revenues, will payments be made to the Affiliates.

Appendix C - Allowed Amounts

The following are the minimum and maximum debit amounts in ZAR that you can ask for from network providers.

Network Provider	Minimum Debit Amount	Maximum Debit Amount
MTN	R0.50	R50.00
Cell C	R0.50	R50.00
Vodacom	R0.50	R50.00

MTN only allows the following amounts to be requested. Any other amounts requested will not be allowed.

R0.50 – R5.00	R5.24 – R10.00	R10:25 – R25.00	R28.00 – R50.00
0.50	5.24	10.25	28.00
0.86	5.50	10.50	29.50
0.99	5.75	10.75	29.99
1.00	5.99	11.00	30.00
1.20	6.00	11.25	32.00
1.25	6.25	11.50	33.00
1.50	6.50	11.75	34.99
1.75	6.75	11.99	35.00
1.98	6.99	12.00	36.00
2.00	7.00	12.25	38.00
2.25	7.25	12.50	39.50
2.49	7.50	12.75	39.99
2.50	7.75	13.00	40.00
2.75	7.99	13.25	45.00
2.99	8.00	13.50	49.50
3.00	8.25	13.75	49.99
3.25	8.50	14.00	50.00
3.50	8.75	14.25	
3.75	8.99	14.50	
3.99	9.00	14.75	
4.00	9.25	15.00	
4.25	9.50	16.00	
4.50	9.75	18.00	
4.75	9.95	19.50	
4.99	9.99	19.99	
5.00	10.00	20.00	
		22.00	
		22.99	
		24.99	
		25.00	

Appendix D - Web Service Definition

```

<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:tm="http://microsoft.com/wsdl/mime/textMatching/"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://196.36.190.168/"
xmlns:s="http://www.w3.org/2001/XMLSchema"
xmlns:soap12="http://schemas.xmlsoap.org/wsdl/soap12/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
<wsdl:definitions targetNamespace = "http://196.36.190.189/">
  <wsdl:documentation>
    <b>A External web service which performs Online Billing Services</b>
  </wsdl:documentation>
  <wsdl:types>
    <s:schema elementFormDefault = "qualified" targetNamespace = "http://196.36.190.189/">
      <s:element name = "ObsDebitRequest_Extr">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs = "0" maxOccurs = "1" name = "ServiceName" type = "s:string"/>
            <s:element minOccurs = "0" maxOccurs = "1" name = "AuthenticationCode" type = "s:string"/>
            <s:element minOccurs = "0" maxOccurs = "1" name = "AffiliateCode" type = "s:string"/>
            <s:element minOccurs = "0" maxOccurs = "1" name = "Msisdn" type = "s:string"/>
            <s:element minOccurs = "1" maxOccurs = "1" name = "Amount" type = "s:double"/>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:element name = "ObsDebitRequest_ExtrResponse">
        <s:complexType>
          <s:sequence>
            <s:element minOccurs = "0" maxOccurs = "1" name = "ObsDebitRequest_ExtrResult" type =
"tns:ExternalObsStatus"/>
          </s:sequence>
        </s:complexType>
      </s:element>
      <s:complexType name = "ExternalObsStatus">
        <s:sequence>
          <s:element minOccurs = "1" maxOccurs = "1" name = "Ex_StatusCode" type = "s:int"/>
          <s:element minOccurs = "0" maxOccurs = "1" name = "Ex_StatusDescription" type = "s:string"/>
        </s:sequence>
      </s:complexType>
      <s:element name = "ExternalObsStatus" nillable = "true" type = "tns:ExternalObsStatus"/>
    </s:schema>
  </wsdl:types>
  <wsdl:message name = "ObsDebitRequest_ExtrSoapIn">
    <wsdl:part name = "parameters" element = "tns:ObsDebitRequest_Extr"/>
  </wsdl:message>
  <wsdl:message name = "ObsDebitRequest_ExtrSoapOut">

```

```

    <wsdl:part name = "parameters" element = "tns:ObsDebitRequest_ExtrResponse"/>
</wsdl:message>
<wsdl:message name = "ObsDebitRequest_ExtrHttpGetIn">
  <wsdl:part name = "ServiceName" type = "s:string"/>
  <wsdl:part name = "AuthenticationCode" type = "s:string"/>
  <wsdl:part name = "AffiliateCode" type = "s:string"/>
  <wsdl:part name = "Msisdn" type = "s:string"/>
  <wsdl:part name = "Amount" type = "s:string"/>
</wsdl:message>
<wsdl:message name = "ObsDebitRequest_ExtrHttpGetOut">
  <wsdl:part name = "Body" element = "tns:ExternalObsStatus"/>
</wsdl:message>
<wsdl:message name = "ObsDebitRequest_ExtrHttpPostIn">
  <wsdl:part name = "ServiceName" type = "s:string"/>
  <wsdl:part name = "AuthenticationCode" type = "s:string"/>
  <wsdl:part name = "AffiliateCode" type = "s:string"/>
  <wsdl:part name = "Msisdn" type = "s:string"/>
  <wsdl:part name = "Amount" type = "s:string"/>
</wsdl:message>
<wsdl:message name = "ObsDebitRequest_ExtrHttpPostOut">
  <wsdl:part name = "Body" element = "tns:ExternalObsStatus"/>
</wsdl:message>
<wsdl:portType name = "ExternalObsWebServiceSoap">
  <wsdl:operation name = "ObsDebitRequest_Extr">
    <wsdl:input message = "tns:ObsDebitRequest_ExtrSoapIn"/>
    <wsdl:output message = "tns:ObsDebitRequest_ExtrSoapOut"/>
  </wsdl:operation>
</wsdl:portType>
<wsdl:portType name = "ExternalObsWebServiceHttpGet">
  <wsdl:operation name = "ObsDebitRequest_Extr">
    <wsdl:input message = "tns:ObsDebitRequest_ExtrHttpGetIn"/>
    <wsdl:output message = "tns:ObsDebitRequest_ExtrHttpGetOut"/>
  </wsdl:operation>
</wsdl:portType>
<wsdl:portType name = "ExternalObsWebServiceHttpPost">
  <wsdl:operation name = "ObsDebitRequest_Extr">
    <wsdl:input message = "tns:ObsDebitRequest_ExtrHttpPostIn"/>
    <wsdl:output message = "tns:ObsDebitRequest_ExtrHttpPostOut"/>
  </wsdl:operation>
</wsdl:portType>
<wsdl:binding name = "ExternalObsWebServiceSoap" type = "tns:ExternalObsWebServiceSoap">
  <soap:binding transport = "http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name = "ObsDebitRequest_Extr">
    <soap:operation soapAction = "http://196.36.190.189/ObsDebitRequest_Extr" style = "document"/>
    <wsdl:input>
      <soap:body use = "literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap:body use = "literal"/>
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>

```

```

<wsdl:binding name = "ExternalObsWebServiceSoap12" type = "tns:ExternalObsWebServiceSoap">
  <soap12:binding transport = "http://schemas.xmlsoap.org/soap/http"/>
  <wsdl:operation name = "ObsDebitRequest_Ext">
    <soap12:operation soapAction = "http://196.36.190.189/ObsDebitRequest_Ext" style =
"document"/>
    <wsdl:input>
      <soap12:body use = "literal"/>
    </wsdl:input>
    <wsdl:output>
      <soap12:body use = "literal"/>
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name = "ExternalObsWebServiceHttpGet" type = "tns:ExternalObsWebServiceHttpGet">
  <http:binding verb = "GET"/>
  <wsdl:operation name = "ObsDebitRequest_Ext">
    <http:operation location = "/ObsDebitRequest_Ext"/>
    <wsdl:input>
      <http:urlEncoded/>
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part = "Body"/>
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:binding name = "ExternalObsWebServiceHttpPost" type = "tns:ExternalObsWebServiceHttpPost">
  <http:binding verb = "POST"/>
  <wsdl:operation name = "ObsDebitRequest_Ext">
    <http:operation location = "/ObsDebitRequest_Ext"/>
    <wsdl:input>
      <mime:contentType = "application/x-www-form-urlencoded"/>
    </wsdl:input>
    <wsdl:output>
      <mime:mimeXml part = "Body"/>
    </wsdl:output>
  </wsdl:operation>
</wsdl:binding>
<wsdl:service name = "ExternalObsWebService">
  <wsdl:documentation>
    <b>A External web service which performs Online Billing Services</b>
  </wsdl:documentation>
  <wsdl:port name = "ExternalObsWebServiceSoap" binding = "tns:ExternalObsWebServiceSoap">
    <soap:address location =
"http://196.36.190.189/externalobswebservice/ExternalObsWebService.asmx"/>
  </wsdl:port>
  <wsdl:port name = "ExternalObsWebServiceSoap12" binding = "tns:ExternalObsWebServiceSoap12">
    <soap12:address location =
"http://196.36.190.189/externalobswebservice/ExternalObsWebService.asmx"/>
  </wsdl:port>
  <wsdl:port name = "ExternalObsWebServiceHttpGet" binding = "tns:ExternalObsWebServiceHttpGet">
    <http:address location =
"http://196.36.190.189/externalobswebservice/ExternalObsWebService.asmx"/>
  </wsdl:port>

```

```
</wsdl:port>  
<wsdl:port name = "ExternalObsWebServiceHttpPost" binding =  
"tns:ExternalObsWebServiceHttpPost">  
  <http:address location =  
"http://196.36.190.189/externalobswebservice/ExternalObsWebService.asmx"/>  
</wsdl:port>  
</wsdl:service>  
</wsdl:definitions>
```