# Radius Management

# User Manual

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# About This Document

## Purpose

The purpose of this document is to describe the Emersion Radius Management functions. Other Emersion user manuals describe the use and operation of other system modules, such as Customer Management and Packages and Plans Management, which may be mentioned or referred to within this manual.

## Intended Audience

The intended audience for this user manual are administration or other staff of a service provider who manage data services within the Emersion System.

## Document Control

| Version | Date | Description | Author |
|---|---|---|---|
| 0.1 | 26/04/2012 | Initial version | Kathy Berkidge |
| 1.0 | 27/04/2012 | Finalised for release | Kathy Berkidge |

# Emersion® Umbrella System

The Emersion® Umbrella System was developed specifically to satisfy the needs of service providers selling complex products such as telephony, broadband and 3G mobile phone plans with bolt-ons to the wholesale and retail markets. The unique Emersion Umbrella Architecture allows products, services and packages to be created, provisioned, billed, and managed as an end to end process using our Thunder™ Workflow Manager. This single Umbrella System allows service providers to be more efficient and reduce the human resource requirements to manage their operations, whilst providing complete control over customers and services from a single interface.

Emersion's end-to-end solution interfaces with Australia's leading national carriers and aggregators making ordering, provisioning, and billing of data and telephony products and services effortless. The Umbrella system workflow guides the user through the service qualification and ordering process, removing the confusion and complication and costly re-keying of information. Customer invoices are generated automatically for all charges associated with their services.

Emersion comprises core systems developed on the robust Emersion Umbrella Architecture and a number of system modules, managed and operated by Emersion, that interact to each other via the Umbrella Architecture, as well as interface to external systems via the Batch Mediation System (*BMS*), Cyclone (for provisioning services), and EPS (Electronic Payment System).

The B2B Application Programming Interface (API) interfaces with multiple carriers and service providers using different communications protocols, such as web services (XML and SOAP) and FTP. CDRs and RADIUS data usage are retrieved from carriers or the service provider without user intervention.

Emersion's super-flexible Billing System allows plans for all types of products and services to be created. The Rating component allows rate cards to be created and managed to associate with plans, including shifting rates based on time, quantity or usage, call block partitions, and traffic zones. Plans can be linked making it easy to build packages and apply discounts or concessions without needing to create countless plans that are both confusing and difficult to manage.

As well as all the flexibility provided in the Plan and Rate modules, Emersion also stores historical rate information allowing historical invoicing as well as re-rating to be performed. The Billing Engine integrates with the Invoice Generation system to automatically generate invoices for customers, whether they are service providers, agents or end users. A single, unified bill is presented, showing customers' packages, services and charges. Customers may view their bills on-line through the User Interface or receive them via email in Adobe® Acrobat® PDF format. Emersion also supports integration to external mail houses for paper invoice generation and posting.

Teamed with the other system modules for Customer Management, Support (Ticketing), Provisioning, Payment Services, Data Retrieval and verification, the Emersion platform provides a degree of flexibility not often seen in services of this kind to date.

Emersion meets the requirements of even the most demanding service provider:

- Improved efficiency - provisioning, billing & support from one system (no re-keying) ✓
- Flexible pro-rata billing, rating and invoicing solutions, bundling, credit management and customer management solutions ✓
- Intuitive User Interface ✓
- Customisable Workflows ✓
- Documentation and training ✓
- Scalable, available and secure, ready to go equipment, software and solutions ✓
- Support backed by an industry leading Service Level Agreement ✓

## Introduction

On behalf of the team at Emersion, we would like to take this opportunity to welcome you to Emersion. Emersion may update the system to improve your experience. Enhancement and new features and changes may be implemented beyond the date of the creation of this document. Therefore, some information or screens in this version of the manual may become slightly out of date.

> Note that other Emersion modules referred to in this manual are not described in detail in this document. Please refer the specific Emersion system manual for further information about each module if required.

Emersion, or your Wholesale Service Provider will provide you with a username and password to access the Emersion system. The Emersion system components are seamlessly integrated and you will access the Emersion Customer Management System (CMS), and all other Emersion system modules from a single Web interface through the Emersion Cumulus user interface.

## Document Conventions

The following conventions are used throughout this manual to describe information and procedures:

| | |
|---|---|
| *Italics* | Indicates the name of a screen, field or setting. The capitalisation and punctuation are the same as displayed on the screen. For example:<br>Complete the *Address* field. |
| **Bold text** | Bold text indicates either the name of a command, button or other interactive element. For example:<br>Type the user's name in the *Customer Name* field, and then click **Search**. |
| **BOLD CAPITALS** | Text in bold capitals indicates the name of a key on a keyboard. For example:<br>Type your password, and then press **ENTER**. |
| **Navigation >** | Menu options or navigation paths are described in shorthand using the following convention:<br>**Module > Functional Area > Option**<br>For example, selecting the Account Profile area can be described as:<br>Select **Admin > Settings > Account Profiles** from the Menu**.** |
| `Monospace text` | Used to represent the text you may type in a field. For example<br>Type `abc` in the *Search* field. |
| ⓘ | The ⓘ symbol indicates some useful information or a handy tip. |

Where possible all images are taken directly from the Cumulus User Interface.

## Assumptions Made

As this manual cannot hope to cover more than the operation of the Emersion Radius management functions, the following assumptions have been made:

- You have a good understanding of Radius and user authentication and accounting.
- You are familiar with the Emersion user interface, including the Service Management and Packages and Plan modules, and you can competently use them.
- You have a computer that you can competently operate.
- You have an Internet connection, and are capable of establishing a connection.
- A Web Browser capable of supporting Web 2.0 functionality is installed on your computer.
- You have a basic understanding of computer and Internet terminology.
- You have a good understanding of the day-to-day business operations of a Service Provider.

## Introduction to Radius

Radius is the de-facto standard protocol for authenticating users and for recording accounting information. It is commonly used by Wireless Access Points (APs), Terminal Servers or Network Access Servers (NASs) whenever a user logs on and off network access devices or dialup Internet service.

Emersion uses Radiator (see http://www.open.com.au/radiator/index.html) as our Radius server. The Emersion Cumulus user interface, billing engine (BMS) and provisioning workflows (Cyclone) are fully integrated with the Radius server. End customers' authentication details can be configured and managed, along with service attributes such as data shaping limits, which are updated to the Radius server automatically. Radius accounting records (i.e. data usage information) are seamlessly processed by the billing engine to create your customer invoices for your data services at the end of the billing period.

# Radius Attributes

When provisioning data products that are authenticated and accounting using Emersion's Radius system, you are able to add custom Radius attributes for each plan you wish to sell to your customers. This can allow you to control attributes such as DNS Servers, Control Lists and IP Pools. It is imperative that the format of the Radius attributes entered into the plan details are correct, or you will experience issues when your customers attempt authenticate.

Emersion uses Radiator as our Radius server, and as such we support the dictionaries provided by Radiator, plus a few custom attributes as required by some of our clients. If you are not sure that the attributes you are trying to use are available, please contact Emersion support.

Radius attributes are entered into the *Radius Attributes* text field on the *Service Plan* page. The attribute key value pairs are delimited by commas.

An example set of key-value pairs, would be:

*RB-Client-DNS-Primary="xxx.xxx.xxx.xxx",* RB-Client-DNS-Secondary="xxx.xxx.xxx.xxx"

As each Carrier has support for different Radius Attributes it is your responsibility to confirm the correct syntax for the attribute key value pairs.

If you make changes to your service plan Radius attributes, and Emersion Support needs to investigate and / or repair these issues for you, the support time will most likely be chargeable.

## Dynamic IP Addressing

If you have organised dynamic IP allocation within Emersion, you will have what is known as a *Pool Hint* allocated to you. To have a plan take advantage of Dynamic IP allocation, you will need to add “PoolHint=XXXX” to the Plan’s Radius Attribute reply set, where XXX is the pool name allocated to you by Emersion.

If you wish to have dynamic IP allocation setup for your customers and configured within the Radius system, you will need to contact Emersion Support, who provide you with a pool hint.

An example set of key-value pairs including a pool hint is:

RB-Client-DNS-Primary="xxx.xxx.xxx.xxx", RB-Client-DNS-Secondary="xxx.xxx.xxx.xxx", PoolHint="MYPOOL"

## Static IP Addressing

Emersion supports static IP addressing for Single Static IP's using the *Service Feature* function. This allows for charging for Single and Multiple IPs but only the allocation of single IPs. To add a group of IPs, you will need to set the Plan’s Radius Attributes appropriately.

An example set of key-value pairs for assigning a group of IPs is:

RB-Client-DNS-Primary="202.55.XXX.5", RB-Client-DNS-Secondary="202.55.XXX.4", Framed-IP-Address = 202.55.XXX.201, Framed-IP-Netmask = 255.255.255.255, Framed-Route = "202.55.XXX.208/29 202.55.XX.201 1"

## To Set Radius Attributes in a Plan

1. Select **Packages and Plans** > **Management** > **Service Plans** from the **Menu.** The *Service Plans* page will display showing a list of existing service plans.
2. Locate and select the required existing data service plan from the list; or

   Create a new data service plan (i.e. click the **Create New** button, select a data Service Type and enter the new plan's details as required – see the Emersion Packages and Plans User Manual for further details about creating plans).
3. On the Service Plan details page, locate the *Data Provisioning* section, which is below the *This Service Plan is linked to the following Packages* section.

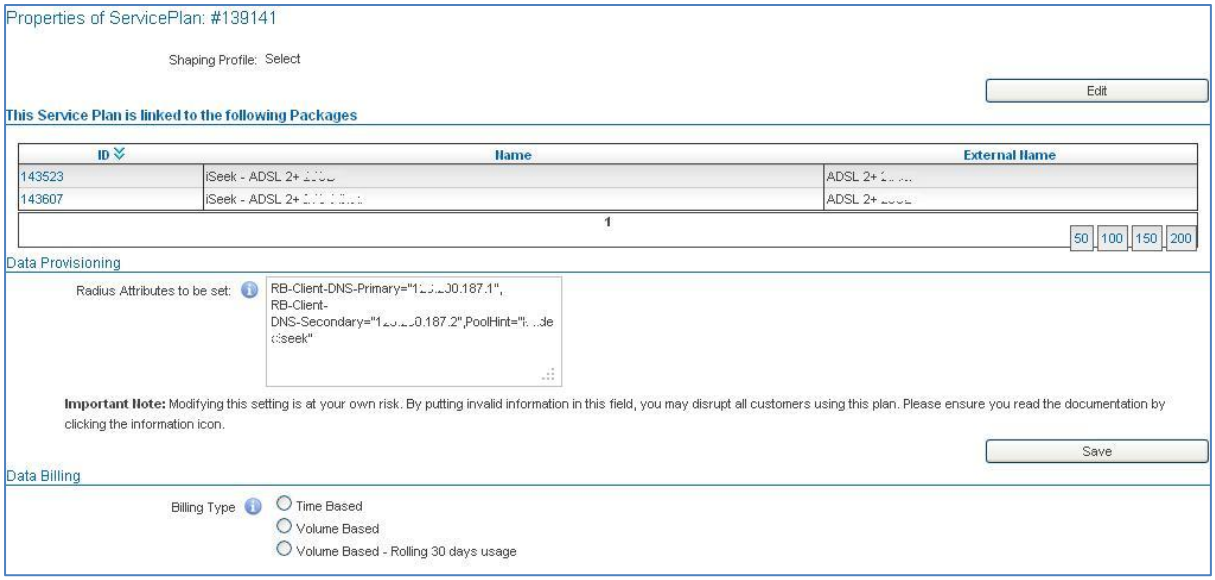


Figure 1. The *Plan* page showing the *Radius Attribute* field

4. Enter the required set of Radius key-value pairs in the *Radius Attributes to be set* text box.

> If you make changes to a Radius attributes, and Emersion Support needs to investigate and / or repair these issues for you, the support time will most likely be chargeable.

5. Click the **Save** button below the *Radius Attributes* text box. The radius attributes will be saved in the Plan details.

   Any new services created that use the plan will use the radius attributes. You can then set individual IP address for each service (see the following sections).

## To Set a Static IP Address

You can set a Static IP Address for a service either at the time you create the service (i.e. enter the service order for provisioning), or after the service is created.

### To Set the Static IP at Service Creation

1. Create a new Order for your customer of the data service type required (i.e. perform a SQ, select the customer and select the required package plan etc). You will see the *Configuring service* page.

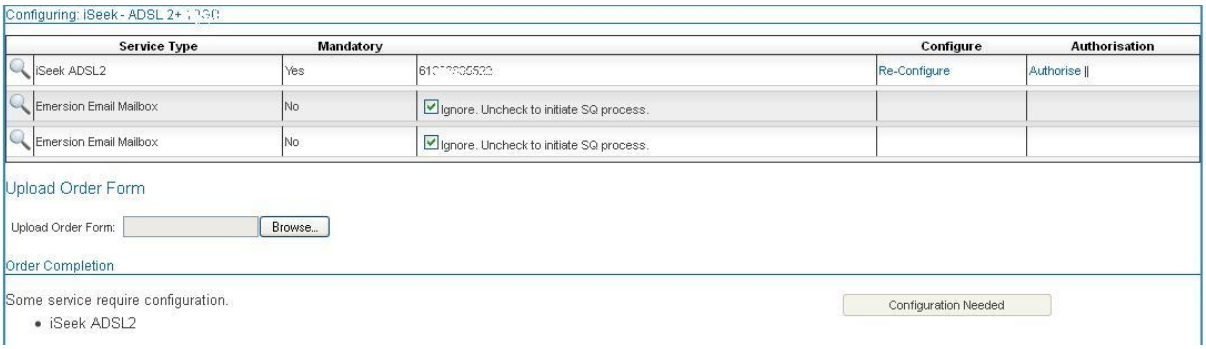


Figure 2. The *Configuring service* page of a data service Order

2. On the *Configuring service* page, click the **Re-Configure** link in the *Configure* column of the data service listed. The Service Configuration page will appear.

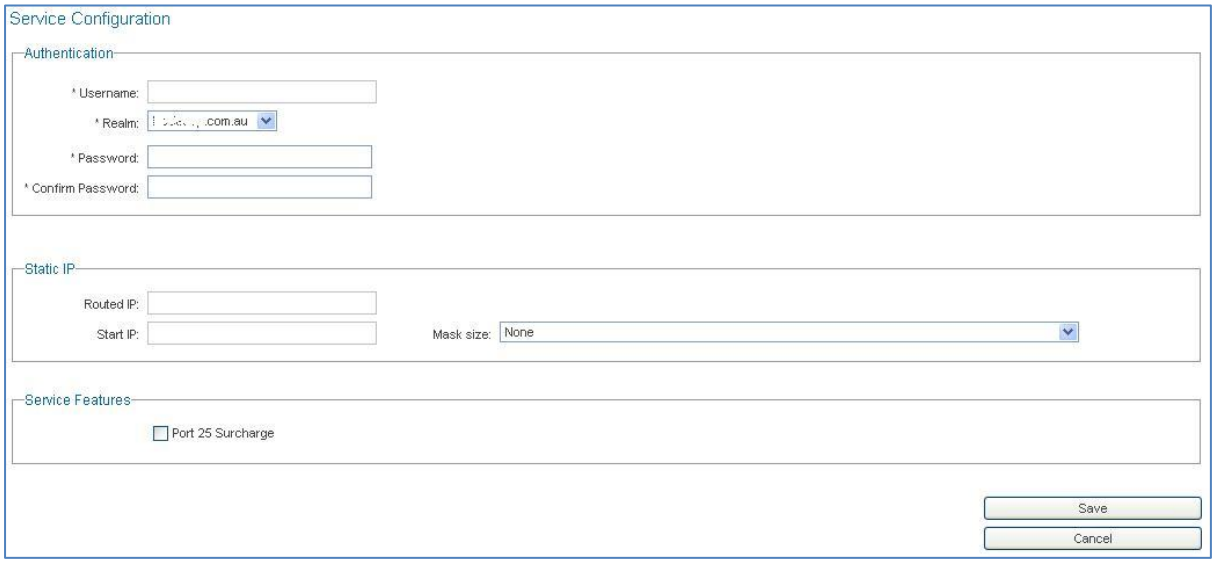


Figure 3. The *Service Configuration* page of an Order

3. On the *Configuring service* page, click the **Re-Configure** link in the *Configure* column of the data service listed. The *Service Configuration* page will appear.
4. Enter the *Username* for the customer to authenticate / login.
5. Select the required *Realm* from the drop list.
6. Enter the *Password* for the user, and re-enter the password again to *Confirm Password*.
7. Enter the *Routed IP* address.
8. Enter the *Start IP* address.
9. Select the required *Mask Size* from the drop list.
10. Click the **Save** button.
11. Complete the order authorisation (i.e. click the **Authorise** link and enter the customer's authorisation details).

12. Click the **Proceed** button. The service provisioning will commence.

    Depending on the service type and your service set up, provisioning will be completed by your upstream service provider, or you will be required to manually activate the service once you have performed any manual provisioning actions with your provider.

    Once the service is active, the IP Address entered will be allocated to the service in the Radius server.

## To Set the Static IP for an Existing Service

1. Locate the service required in either the **Customers** > **Customer List** > **view customer** > **Service Subscriptions** page, or via the **Services** > **List All** page.
2. Click the service's **Service Identifier** link in the list. The service details will be displayed in a *view service* page.
3. Locate the *Service Properties* section on the *view service* page.


Figure 4. The *View Service* page showing the *Service Features* section

4. Select the *Static IP* service feature from the *Select New Unallocated Feature* drop list, and click the **Add Feature** to Service button. The *Static IP Identifier* fields will appear.

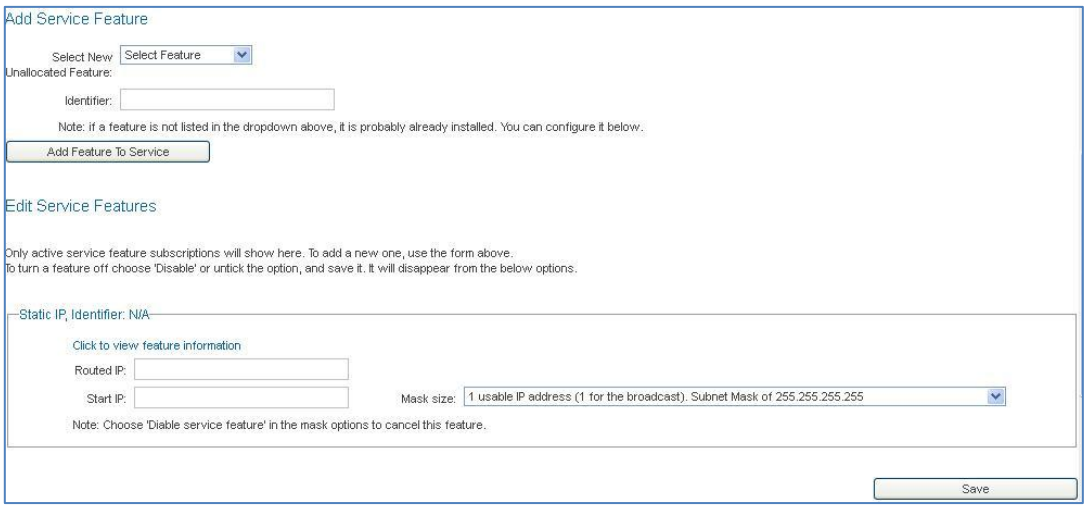


Figure 5. The *Service Features* section showing *the Static IP Identifier* fields

5. Enter the *Routed IP* address.
6. Enter the *Start IP* address.
7. Select the required *Mask Size* from the drop list.
8. Click the **Save** button. The entered IP details will be recorded with the service and updated in the Radius server.

When you set or update a static IP for a service, the end user will need to reset their modem to connect with the static IP address.

## To Edit a Static IP Address

1. Locate the service required in either the **Customers** > **Customer List** > **view customer** > **Service Subscriptions** page, or via the **Services** > **List All** page.
2. Click the service's **Service Identifier** link in the list. The service details will be displayed in a *view service* page.
3. Locate the *Edit Service Properties* section on the *view service* page.


Figure 6. The *Service Features* section showing *the Static IP Identifier* fields

4. Update the *Routed IP* address as required.
5. Update the *Start IP* address as required
6. Select the updated *Mask Size* from the drop list, if required
7. Click the **Save** button. The entered IP details will be recorded with the service and updated in the Radius server.

When you update a static IP for a service, the end user will need to reset their modem to connect with the updated static IP address.

## To Remove Static IP from a Service

1. Locate the service required in either the **Customers** > **Customer List** > **view customer** > **Service Subscriptions** page, or via the **Services** > **List All** page.
2. Click the service's **Service Identifier** link in the list. The service details will be displayed in a *view service* page.
3. Locate the *Edit Service Properties* section on the *view service* page.
4. Select *Disable service feature* from the *Mask Size* drop list.

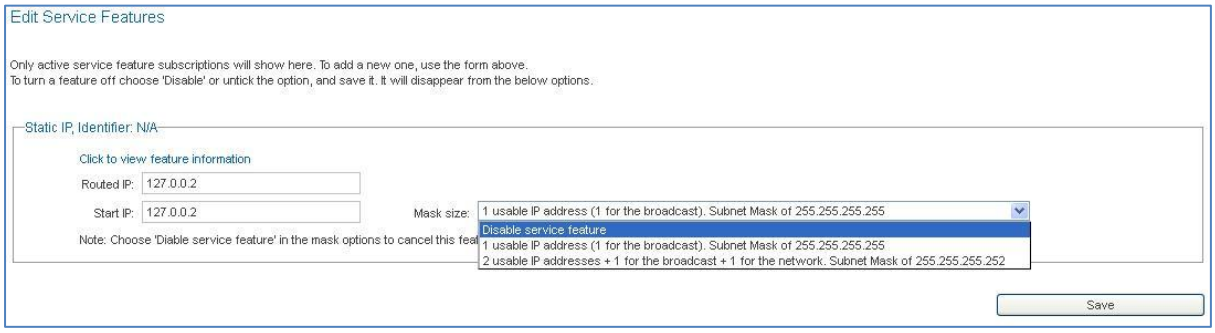


Figure 7. The *Service Features section* showing *Disable service feature*

5. Click the **Save** button. A message box will appear at the top of the screen showing that the service features have been updated. The IP details will be removed from the service and updated in the Radius server.

> When you remove a static IP for a service, the end user will need to reset their modem for the change to be effected..

# The Radius Reports

The Radius reports enable you to view selected information about your data services as obtained from the radius server. Emersion provides a number of reports in the Report > List > Radius menu. Each Radius report may be executed, scheduled, and the report data may be exported to a.CSV file.

## Allocated IP Addresses Report

The Allocated IP Addresses report lists all services with their allocated IP Addresses, as set up in the service's features.

### Report Fields

The Allocated IP Addresses report fields are as follows:

| Report Field | Description |
|---|---|
| Service ID | The service ID associated with the service. |
| Identifier | The primary service identifier associated with the data service, usually the customer's username and realm. |
| IP Address | The IP address |
| Service Type | The service type associated with the Radius authentication. |
| Start Date | The data and time the session was commenced (i.e. when the session was connected). |

## Current Shaped Users Report

The Current Shaped Users report lists all services that are shaped (or throttled), due to the user exceeding their data allowance, as defined in their data plan.

### Report Fields

The Current Shaped Users report fields are as follows:

| Report Field | Description |
|---|---|
| Account ID | The customer's account ID. |
| Primary Identifier | The primary service identifier associated with the data service, usually the customer's username and realm. |
| Current Usage | The customer's current usage, in MB. |
| Service ID | The service ID associated with the service. |
| Time Band | The time band associated with the current usage, as either Peak or Off Peak. |
| Time Band ID | The time band ID. |
| Allowed Usage for Band | The data plan's usage allowance for the time band. |
| Service Subscription Period ID | The current service's billing period ID (used to determine when the usage period will roll over and the service shaping removed). |

## Live Online Users Report

The Live Online Users report shows all users that are currently on line and connected to the service.

### Report Fields

The Live Online Users report fields are as follows:

| Report Field | Description |
|---|---|
| Service ID | The service ID associated with the service. |
| Username | The customer's username. |
| Session ID | The Radius session ID. |
| Framed IP Address | The IP address allocated to the session. |
| MB Uploaded | The amount of data uploaded in the current session, in MB. |
| MB Downloaded | The amount of data downloaded in the current session, in MB. |
| Last Packet Time | The data and time the last data packet was received by the Radius server. |
| Time Online | The time the current session has been connected, in hh:mm:ss. |

## Radius Authentication Log

The Radius Authentication Log shows a log of all authentication attempts made to the Radius server over a selected period of time. There are a number of filters you can apply to this report, as follows:

- Time Period – the period of time to show the authentication log data, as one of:
  - Last 5 minutes
  - Last 15 minutes
  - Last 30 minutes
  - Last hour
  - Last 2 hours
  - Last 8 hours
  - Last 2 days
- Service Type – All, or a specific service type
- Realm – All, or a specific realm

### Report Fields

The Radius Authentication Log fields are as follows:

| Report Field | Description |
|---|---|
| Service ID | The service ID associated with the service. |
| Service Type | The service type associated with the Radius authentication. |
| Username | The customer's username. |
| Realm | The realm. |
| Datetime | The date and time of the authentication attempt. |
| Status | The status of the authentication attempt. |
| Reason | The reason the authentication attempt failed for failed authentication attempts. |

## Duplicate IP Addresses Report (iSeek)

The Duplicate IP addresses report will show a list of services that have the same IP address allocated on iSeek DSL, iSeek DSL2 and iSeek RBT DSL service types.

### Report Fields

The Duplicate IP addresses report fields are as follows:

| Report Field | Description |
|---|---|
| Username | The customer's username. |
| Service ID | The service ID associated with the service. |
| IP Address | The IP Address as recorded in the service feature. |
| Duplicate Username | The customer's username of the detected duplicate IP address service. |
| Duplicate Service ID | The service ID of the detected duplicate IP address service. |
| Duplicate IP Address | The duplicate IP Address |

## No Static IP Report (iSeek)

The No Static IP report lists all iSeek DSL, iSeek DSL2 and iSeek RBT DSL services that do not have the Static IP service feature enabled.

### Report Fields

The No Static IP addresses report fields are as follows:

| Report Field | Description |
|---|---|
| Account ID | The customer's account ID. |
| Service ID | The service ID associated with the service with no static IP. |
| FNN | The service's Primary Identifier or FNN. |

## Static IP Address Enabled with No IP Set Report (iSeek)

The Static IP Address Enabled with no IP Set report shows all iSeek DSL, iSeek DSL2 and iSeek RBT DSL services that have the Static IP address service feature enabled, but do not have an IP address set against the service feature.

### Report Fields

The Static IP Address Enabled with No IP Set report fields are as follows:

| Report Field | Description |
|---|---|
| Account ID | The customer's account ID. |
| Service ID | The service ID associated with the service with no IP address. |
| FNN | The service's Primary Identifier or FNN. |

## To Generate a Radius Report

Before you can export any report information, you must first generate the data by running the required report.

6. Select **Report** > **List** > **Radius** from the **Menu.** The *Radius Reports* page will display showing a list of existing Radius reports.

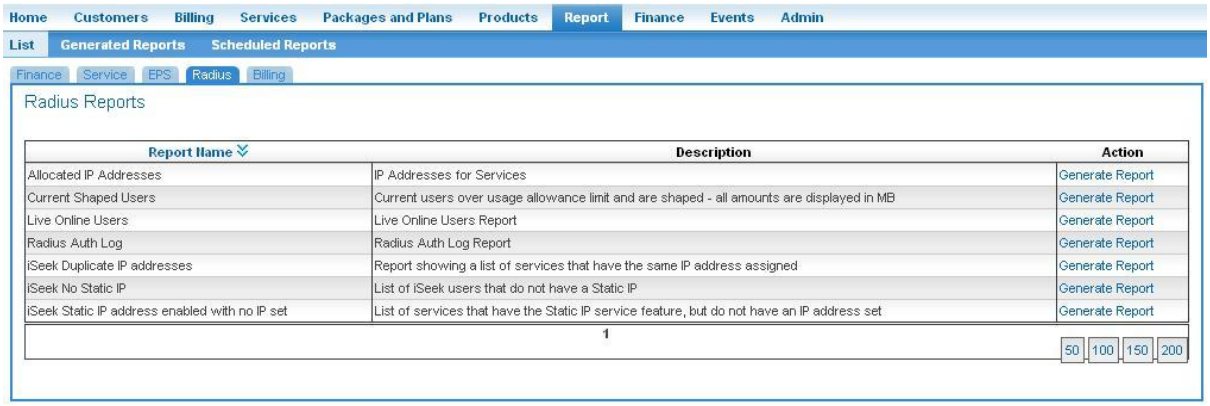


Figure 8. The *Radius Reports* page

7. Click the **Generate Report** link beside the required report in the list. The selected *Report* page will display.

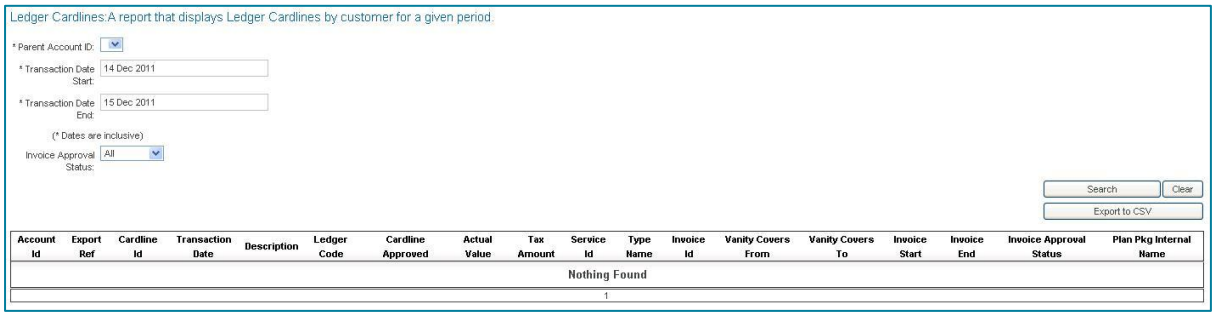


Figure 9. The *Ledger Cardlines Report* page

8. For the Radius Authentication Log, select the report filter criteria from the drop lists as required.
9. Click the **Search** button to run the report. The report data will be displayed on the report page.

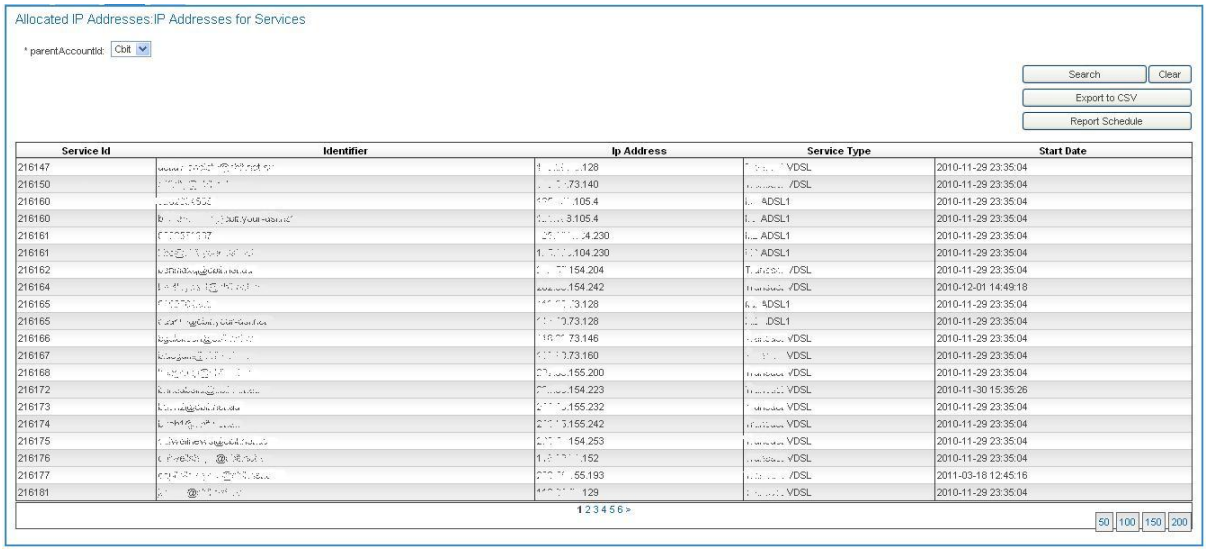


Figure 10. The *report* page showing the *Allocated IP Address* report

10. Click the **Export to CSV** button. A message box will appear at the top of the screen showing that the report is being generated.

## To Download a Radius Report

Before you can download the report, you must first run the report to create the output report file (see the section above). The output .CSV file is created compressed in .ZIP format. Once you download it, you will need to extract the .CSV from the .ZIP file before you can open it.

1. Select **Report** > **Generated Report** from the **Menu.** The *Downloadable Reports* page will display showing a list of reports that have been generated in the default date range.

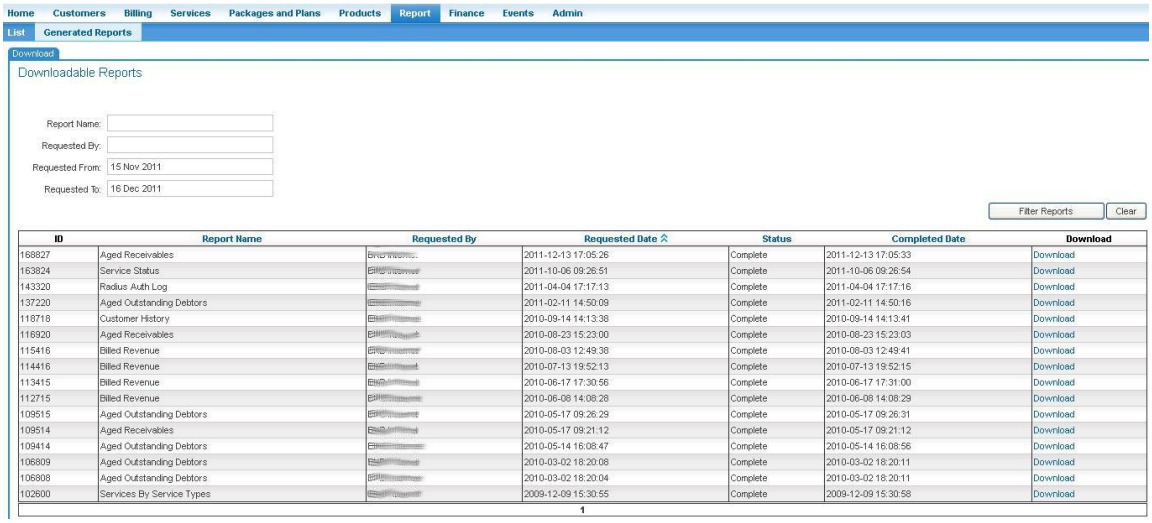


Figure 11. The *Downloadable Reports* page

2. Locate the report previously generated and click the **Download** link beside the required report in the list. The *Opening … file* window will appear.

   If you don't see the required report in the list, adjust the date range in the *Requested From* and *Requested To* fields to include the date the report was generated.

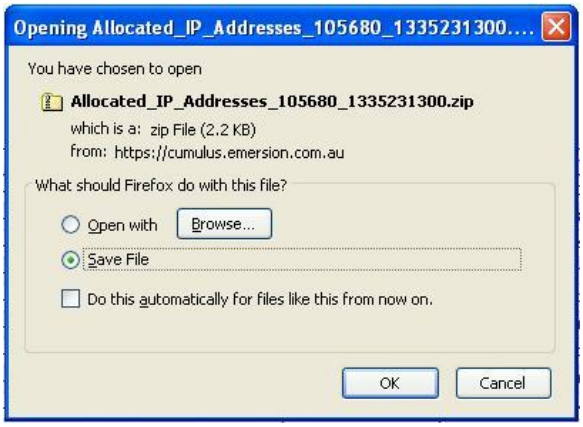


Figure 12. The *Opening … file* window

   Note that the file window on your system may different to the sample window shown above, depending on the version of Firefox and operating system you have installed.

3. Select the option to Save the file to your computer is selected, and then click the **OK** button.
4. Save the *report_<ID>_<date>.zip* file to your computer, noting the location.
5. Extract the .CSV file from the .ZIP file, using your system's unzipping tool.
6. Open the CSV file with your preferred application or spread sheet. Fields are separated by commas and by default MS Excel will separate the data into columns & rows based on a comma field separator.

   The file may be password protected with the password *'emersion'.*
7. You can manipulate the CSV file as required.

## To Schedule a Radius Report

Radius reports can be set up to be run automatically by the system, and the output can be emailed to any user email address. For the report output to be emailed to a user, the *Report Schedule Process Message* event template must be set up. If this event template is not set up, the report will still automatically run, but the output will be available in the Generated Reports page for you to retrieve manually (see the To Download a Radius Report section above). For more information about Events and Event templates, please refer to the Emersion Events User Manual.

1. Select **Report** > **List** > **Radius** from the **Menu.** The *Radius Reports* page will display showing a list of existing Radius reports.
2. Click the **Generate Report** link beside the required report in the list. The selected *Report* page will display.
3. Click the **Report Schedule** button. The selected report *Create New Report Schedule* page will display.


Figure 13. The *Create New Report Schedule* page

Note: If you do not see the Report Schedule button on the selected report page, please contact Emersion support to configure this option.

4. Enter an ID for the report schedule in the *Schedule Id* field. This needs to be a unique identifier.
5. Enter a description for the report schedule in the *Schedule Name* field.
6. The Workflow Data field shows some internal reference information. Do not modify this data.
7. Select the frequency to run the report from the *How Often* drop list. Options include:
   - Daily
   - Weekly
   - 2 weekly
   - Monthly
   - Yearly
8. Leave the *Auto Increment* check box ticked. This option allows the system to automatically increment the report date selection criteria, but is not relevant to the current Radius reports.
9. Click the **Create** button. A message box will appear at the top of the screen showing that the report schedule has been saved.

   The report will now automatically run per the frequency selected. If you have configured your *Report Schedule Process Message* event template, the report will be emailed automatically to the users as defined in the event template.

# Further Information

For further information about Emersion's Radius functions, or other Emersion system modules, please contact Emersion.

If you are using Emersion on agreement from a supplier (i.e. in connection with the supply of a particular service or product), and have been provided a login for Emersion by your supplier, please contact your supplier directly for assistance.

## Emersion

Phone: 1300 793 310
Fax: 1300 793 320
Email: emesupport@emersion.com.au

## Emersion Web Site:

www.emersion.com.au

 

# Glossary of Terms and Abbreviations

**ACMA** means the Australian Communications and Media Authority.

**ACCC** means the Australian Competition and Consumer Commission.

**ACIF** means the Australian Communications Industry Forum.

**ACIF Code** means an industry code registered with the Australian Communications Authority (now ACMA) under the *Telecommunications Act 1997.*

**ADSL** means Asymmetrical Digital Subscriber Line.

**Broadband** means an always-on Broadband Service over Unconditioned Local Loop (ULL) aggregating data to/from customers to a state or national point-of-interconnect.

**Broadband Churn** means a Churn Order to transfer a Broadband Service from one service provider to another.

**Business Day** means any day from Monday to Friday (inclusive) other than a day which is gazetted or otherwise declared or made a Public Holiday.

**Business Hours** means 08:30 to 17:00 Australian Eastern Standard Time.

**CA** means Customer Authorisation.

**Caller** means the person originating a call using a telecommunications Service.

**Cancel Order** means an order created to terminate an existing Service.

**Calling Line Identity** means the data generated by a network which relates to the telecommunications Service of the originating call. Also known as Calling Line Identification.

**Calling Number Display** means the option available to a customer regarding whether they would like their number to be shown or kept hidden from the party they are calling. Also known as Caller ID.

**Cardline** is a transaction with the system for any financial action, such as charges, payments, credits, fees etc that appears on a customer's invoice.

**Carrier** means the holder of a carrier licence in accordance with the *Telecommunications Act1997.*

**Change Order** means the option available to change an existing order.

**Churn** means the transfer of a Service.

**Churn CA** means a Local Call Churn CA and/or a Broadband CA.

**Churn Order** means an order created where the customer wishes to transfer a Local Service and/or Broadband.

**CLI** means Calling Line Identity or Calling Line Identification.

**Clear Business Day** means a period of time commencing at 08.30 on the next Business Day.

**CND** means Calling Number Display.

**CND Code** means ACIF Code C5222: *Calling Number Display* as registered by the ACMA.

**Cooling Off Period** means any period available by law to a customer to rescind or otherwise avoid any agreement under which that customer agrees to acquire the Service.

**CSG** means Customer Service Guarantee.

**Customer Authorisation** means an authorisation by the customer, or their agent, containing the minimum mandatory required information as required by the relevant ACIF code.

**Customer Service Guarantee** means the *Telecommunications (Customer Service Guarantee) Standard 2000 (No. 2)* which is legislation aimed at encouraging improvements in Service and to guard against poor Service by requiring phone companies to meet minim standards for Service connection, fault rectification and appointment keeping in relation to the supply of Standard Telephone Services.

**Directory Listing** means a listing in a telephone directory including, but not limited to, the White Pages.

**Directory Preference** means the preference stated by the customer with respect to whether they want a Directory Listing or an Unlisted Number.

 

**DSLAM** means Digital Subscriber Line Access Multiplexer, a mechanism at a phone company's central location that links many customer DSL connections to a single high-speed line.

**Emersion** is the Online Ordering Portal, which is the system used to provision and bill individual services for customers.

**End customer / Customer** means the person whose name is on the Service account and has authorised the provision of the Service through a Customer Authorisation.

**FNN** means Service Number or Full National Number.

**Integrated Public Number Database** means the database contemplated in schedule 2, Part 4 of the Act that contains specified customer information for all public numbers as defined in the IPND Code.

**IPND** means Integrated Public Number Database.

**IPND Code** means ACIF Code C555:2002 *Integrated Public Number Database (IPND) Data Provider, Data user and IPND Manager* as registered by the ACMA as amended from time to time.

**LD** means Long Distance.

**LD Carrier** means Long Distance Carrier.

**LD Churn** means a change in LD Pre-selection.

**LD Reseller** means non-carrier providers of Pre-selection services, using equipment owned by existing carriers.

**Ledger** is the principal book or computer file for recording and totalling monetary transactions by account, with debits and credits etc.

**Ledger Code** is an accounting code used to record transactions depending on financial accounts involved in different transaction type, assigned to account groups such as receivables and payables etc.

**Line Blocking Status** means the status of a particular telecommunications Service in relation to whether it has in place a **Permanent Line Block** or enabled **CND**.

**Listed Number** means a telecommunications Service Number which is listed in a public number directory.

**LNP** means Local Number Portability.

**LNP Code** means ACIF C540:2006.

**Local Number Portability** Code as registered by the ACMA.

**Local Call/Broadband** means Local Call and/or Broadband Services.

**Local Call/Broadband Churn Reversal** means the reinstatement of a customer's Service to a Losing service Provider following an Unauthorised Local Call/Broadband Churn.

**Local Call Churn** means the transfer of a Local Service (including Service Number) between service providers.

**Local Call/Broadband Churn** means Local Call Churn and/or Broadband Churn.

**Local Number Portability (LNP)** means the Porting of a Service Number associated with the provision of a Local Service between different Carrier networks.

**Local Service** has the same meaning as given in the *Telecommunications Numbering Plan 1997*.

**Long Distance** means Long Distance Pre-selection.

**Long Distance Carrier** means a Carrier that provides carriage of Pre-selectable Calls originating from a Local Service.

**Long Distance Pre-selection** means the ability of a customer to automatically have their lines switched to the LD Provider of their choice for Pre-selectable calls.

**Long Distance Provider** means an SP that resells LD.

**MDF** means Main Distributor Frame. This is where the incoming telephone lines from the street terminate within a building. Depending on the size of the building the MDF could be a small plastic box on the wall or a large room.

**MDU** means Multiple Dwelling Unit e.g. apartment building of more than 3 floors, or block of units greater than 10 units.

**NBP** means the Network Boundary Point.

 

**Network Boundary Point** is the customer's first and main socket for houses, or the Main Distributor Frame for a Multi Dwelling Unit (MDU).

**New Service Order** means a request, made by the SP, to provision service to a customer address.

**Order** means one of the following:

a) New Service Order.

b) Churn Order.

**Order Number** means the reference number supplied to the SP following the submission of an order. Also referred to as Reference Number.

**Order Process** means the process by which you can request a Telstra service to a customer location.

**Order Reference Number** means the reference number supplied following the submission of an order. Also Referred to as Order Number.

**Pending Order** means an order which has been submitted but not yet completed.

**Ping** means a protocol that sends a message to another computer and waits for acknowledgement, often used to check if another computer on a network is reachable.

**POTS** means Plain Old Telephony Service.

**Point to Point Protocol** means protocol that allows the transport of packets between the customer and the Retail Carrier. The Retail carrier can authenticate the user with PAP or CHAP authentication.

**Pre-selectable Call** has the same meaning as given in ACIF C515:2003 Pre-selection Industry Code and includes calls from a local Service to:

i. a geographic number or local number that is not a local call;
ii. an international direct dial service;
iii. operator service for which the *Telecommunication Number Plan 1997* specifies the use of a shared selectable number;
iv. a carriage service that is both a ring back price service and an international service;
v. a public mobile telephone service.

**Pre-selection** means the selection of a carrier for Pre-selectable Calls and includes service made available by you to a customer for a Local Service which will:

i. permit designation by the customer of a LD Provider for that Local Service;
ii. allow billing for Pre-selectable Calls by the Long Distance Provider;
iii. allow billing for calls made using and Access Override Code to LD Providers;
iv. allow the customer to change from time to time designation of their LD Provider for that Local Service.

**Pre-selection Code** means ACIF Code C522: *Pre-selection* as registered by the ACMA.

**Public Holiday** means any day on which transfer activity is not available. Public Holidays will be issues via the service review on an annual basis.

**RADIUS** means Remote Authentication Dial In User Service – a networking protocol for providing centralised end user authentication, authorisation and accounting management to connect and user a network service.

**RC** means Retail Carrier.

**Relocation Order** means an order created to initiate the relocation of a customer Service to a new customer address.

**Retail Carrier** has the same meaning as a "Service Provider" as defined in section 86 of the Telecommunications Act 1997.

**Sent** means the choice taken to enable CND information to be displayed.

**Service** means M2 Residential Broadband and Telephony Services.

**Service Number** means a geographic number as defined by the *Telecommunications Numbering Plan 1997.*

**Service Qualification** means the determination of whether a communications wire is compatible with the deployment rules for a given deployment class.

**Simple Telephone Service** means a local service which comprises a:

 

(a) Standard Telephone Service; and

(b) Service number

Where there exists a one to one relationship between the Service number and the relevant access line to the Standard Telephone Service.

**SP** means a Service Provider or re-seller of telephony and/or broadband services.

**Standard Telephone Service** has the meaning given by section 6 of the *Telecommunications (Consumer Protection and Service Standards) Act 1999.*

**Standard Time** means:

(a) Eastern Standard Time (GMT +10 hours); or

(b) Eastern Daylight Saving Time (GMT plus 11 hours) when in effect in VIC.

**SQ** means Service Qualification.

**Telstra** means Telstra Corporation Limited.

**ULL** means Unconditioned Local Loop.

**ULLS** means Unconditioned Local Loop Service.

**ULLS Code** means ACIF C569: 2005 *Unconditioned Local Loop Service Ordering, Provisioning, and Customer Transfer* as registered by the ACMA.

**Unauthorised Broadband Churn** means a Broadband Churn Order that has been submitted without a valid CA:

(a) which resulted from a processing error;

(b) a CA is determined to be unauthorised

**Unauthorised Local Call Churn** means a Local Call Churn Order that has been submitted without a valid CA::

(a) which resulted from a processing error;

(b) where a CA is determined to be unauthorised.

**Unauthorised Local Call/Broadband Churn** means Unauthorised Local Call Churn and/or Unauthorised Broadband Churn.

**Unauthorised LD Churn** means an LD Churn that has been submitted without a valid CA as described in this manual:

(a) which resulted from a processing error;

(b) where a CA is determined to be unauthorised.

**Unauthorised Port** means a Port Order that has been submitted without a valid CA:

(a) which resulted from a processing error;

(b) where a CA is determined to be unauthorised.

**Unauthorised ULL Churn** means the acquisition of a new copper pair in association with a Port, Relocation or New Service Order where the order has been submitted without a valid ULL CA:

(a) which resulted from a processing error;

(b) where a CA is determined to be unauthorised.

**Unlisted Number** means a Service Number that the customer has requested not be listed in public telephone directory (including, but not limited to, the White Pages).

**Unwelcome Call** means the use of a Standard Telephone Service in a menacing, offensive or harassing manner, but which is not currently a Life Threatening Call, and which may be intentional on the part of the caller or unintentional.

**USB** means Universal Serial Bus, a widely used hardware interface for attaching peripheral devices.

**User** means the person using the provided systems.

**Wholesale Account Number** means the account number between the Losing carrier and another service provider who is rebilling the customer.

 