Events System

User Manual

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About This Document

Purpose

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

Intended Audience

The intended audience for this user manual are system administrators who manage the system setup and configuration within the Emersion System.

Document Control

Version	Date	Description	Author
0.1	27/09/2011	Initial version	Kathy Berkidge
0.2	19/01/2012	Added Activate Package Event type	Kathy Berkidge
1.0	20/01/2012	Finalised Version 1	Kathy Berkidge

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: Complete the *Address* field.
Bold text	Bold text indicates either the name of a command, button or other interactive element. For example: 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: Type your password, and then press **ENTER**.
Navigation >	Menu options or navigation paths are described in shorthand using the following convention: **Module > Functional Area > Option** For example, selecting the Account Profile area can be described as: Select **Admin > Settings > Account Profiles** from the Menu**.**
`Monospace text`	Used to represent the text you may type in a field. For example 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 Events module, the following assumptions have been made:

- 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.
- Acrobat® Reader version 6.00 or higher is installed on your computer.
- You have a basic understanding of computer and Internet terminology.
- You have a basic understanding of the day-to-day business operations of a Service Provider.

Events

Introduction

The Emersion Events System processes a set of pre-defined *triggers* that automatically initiate system *actions* when the particular condition is detected. Each *action* is characterised by a *template* that defines the action the system performs. Actions are linked to one or many *account profiles* to determine what accounts the action is performed against. So an *event* is simply the complete mapping of a *trigger*, an *action, account profile,* and a *template*.

Events are configured by Emersion's support team specifically to your individual requirements. Each event *trigger* is defined for each *action* and mapped accordingly to suit your business. Please contact our support team to configure events and triggers for you.

There are basically two types of events available: account centric; or process centric. Account centric events examine customer records to determine whether certain conditions exist within the customer accounts, such as invoice overdue, credit card expired, and add new customer or service. Process centric events check for other system process driven conditions, such as usage threshold reached, payment failed, and payment received. The Emersion support staff will set up the right event type to suit your business rules.

Event Types

Events types are defined by Emersion and determine the condition, or conditions, each event will be triggered. As mentioned in the introduction, there are two broad categories of events, account or process centric. Within each event category, there are many event types, each with a set of specific, system defined trigger points or conditions. The event is triggered when all the trigger conditions are met. For example, the overdue invoice event may have trigger conditions based on the number of days overdue, the amount overdue and the number of overdue invoices.

The following event types are currently available:

- Account Creation
- Account Status Change
- Account Add Package Subscription
- Account Package Migration
- Account Password Change
- Cancelled Package
- Invoice Post
- Invoice Delivery
- Invoice Due
- Invoice Overdue
- Credit Card Expiry
- Automated Payment Received
- Manual Payment Received
- Payment Failed
- Shape Valid Service
- Remove Shaping from Valid Service
- Usage Threshold (Shaping)
- Rolling Usage Threshold
- Usage Over Limit (Shaped)
- Auto Renew Account Credit
- Re-Rated Invoice Complete
- Re-Rendering an Invoice from UI
- Package Activated

Additional event types may become available in the future. See below for more information about each event type.

Account Creation

When a new customer account is created, this event can be triggered to send an email to the customer e.g. welcome pack, FAQs, contact numbers and other new account details.

Account Status Change

When a customer's account status changes (i.e. active / inactive) this event can be triggered to inform the customer of the changes. For example, when a customer's account is made active after being inactive for whatever reason, you could send them message.

Account Add Package Subscription

This event can be triggered when a new package is purchased to send information to the customer e.g. usernames, service setup information etc.

Account Package Migration

This event can be triggered when a customer's existing package is migrated to a new package e.g. when the customer upgrades or chooses other service packages etc. The new package details and related information could be sent to the customer.

Account Password Change

This event can be triggered when the customer changes their account password via the End User Portal e.g. to send a confirmation to the user as well as notify your support staff.

Cancelled Package

If a package is cancelled, this event can be triggered to confirm the services cancellation, and inform the customer of the final balance.

Invoice Post

When the billing system has completed an invoice run, and there are invoices with the delivery method of 'post' (i.e. to physically send paper invoices to customers in the mail), this event can notify an Emersion user via email that the invoices are ready to be sent, as well as send all the invoices as attachments to be printed and posted.

Invoice Delivery

When the billing system has completed an invoice run, and there are invoices created with the delivery method of 'email', this event can trigger an email to be sent to the customer with the invoice attached.

Invoice Due

This event can be triggered on or after the invoice due date when payment has not been received e.g. email the customer a reminder note. The number of days from the invoice due date to trigger the event can be configured.

Invoice Overdue

Similar to the 'Invoice Due' event, this event can be triggered when the invoice due date has past and payment has not been received e.g. email the customer an overdue reminder note. The number of days from the invoice due date to trigger the event can be configured.

Credit Card Expiry

This event examines each customer account to determine whether the credit card expiry date recorded is approaching and if so to trigger an action. For example, when a customer's credit card is within 2 months of expiry, send an email to prompt the customer to provide updated credit card details. The number of months before the expiry date, as well the ability to trigger multiple events at different points (e.g. at 2 months, at 1 month, and on the expiry month) can be configured.

Automated Payment Received

When an automated payment has been successfully processed by the system, this event can be triggered to send a message and receipt details to the customer to confirm that the payment has been completed, as well as notify your accounts receivable staff.

Manual Payment Received

When a payment has been successfully processed manually by an Emersion user in the system, this event can be triggered to send a message and receipt details to the customer to confirm that the payment has been completed, as well as notify your accounts receivable staff.

Payment Failed

When an automated payment cannot be processed by the system, this event can be triggered to send a message to the customer to notify that the payment has failed, as well as notify your accounts receivable staff.

Shape Valid Service

This event examines service usage and triggers when the usage amount has reached the monthly allowance as set on the service plan. The system then *shapes* the service (i.e. by interfacing with the Radius server).

Remove Shaping from Valid Service

This event is closely linked to the ‘Shape Valid Service’ event, and triggers when the usage period of a shaped service rolls over to the next usage period (e.g. at the beginning of the month). The system then removes the *shaping* that was previously applied to the service.

Usage Threshold (Shaping)

This event is used to examine and monitor usage data and trigger when a particular percentage of the service usage allowance for the period has been reached. For example, trigger an event when a DSL service’s usage reaches 75% of the monthly quota. Multiple trigger points may be set up e.g. one for 75% of usage allowance used, and another at 90% etc.

Usage Over Limit (Shaped)

This event triggers when the usage of a service has exceeded the service usage allowance for the period i.e. at 100% of usage.

Rolling Usage Threshold

This event is used to examine and monitor usage data to identify unexpected or sudden changes in a customer’s service usage. Every day, the system calculates a rolling 30 day total of the service usage and then examines the current calculated amount with the previous day’s amount, and triggers the event when a particular threshold is reached. For example, if the rolling 30 day total of data used yesterday compared to the rolling 30 day total of data used today changes from say 80% yesterday to 100% today, the event can trigger to notify the customer. Usage thresholds can be specified separately for data upload, data download, and telephony.

Auto Renew Account Credit

The ‘Auto Renew’ event is primarily used for pre-paid services. When the service usage has met a particular threshold (e.g. pre-paid credit expiry in 10 days, or 10 hours credit remaining), this event can trigger an automatic renew or purchase of further prepaid credit. This event could also be used to prevent further usage on the service.

Re-Rating Invoice Complete

When you audit your invoices following a bill run, some invoices may have fees, charges, or rates that were incorrect. After you have made the necessary corrections (e.g. update the product rate cards etc.) you can click the 'Re-Rate' button to have the invoice charges recalculated by the system. This event is triggered once the system has completed re-rating the invoices and can be used to notify your billing staff to review the updated invoices.

Re-Rendering an Invoice from UI

When updates have been made to invoices following a bill run (e.g. adding or modifying cardlines etc.) you can click the 'Re-Render' button to have the invoice re-created by the system. This event is triggered once the system has completed re-rendering the invoices and can be used. to notify your billing staff to review the updated invoices.

Package Activated

This event can be triggered when a new package is activated, and could be used and could be used to send an email to the customer etc.

Triggers

An event *trigger* is a condition, or conditions, that the system tests against to determine whether to initiate an event. Many events require customised configuration that is specific to each event type and its specific trigger condition, which also varies between Emersion customers. For example, for the 'Invoice Overdue' event, the number of days after an invoice becomes overdue can be set up to suit your business needs.

Event triggers are set up by the Emersion support team. Most events are automated and require no specific thresholds to be set i.e. default trigger configuration. Some event triggers require some explicit, detailed input to ensure that the custom functionality required is implemented correctly. Please contact the Emersion support staff for further information.

Actions

Actions determine what activities the system performs when an event is triggered. Multiple action types may be configured per event. For example, when the 'Invoice Overdue' event is triggered, the system can record the details in the system log, as well as send an email to the customer and your accounts staff. Event actions must be associated with at least one account profile to trigger an event (see below).

The actions currently available in Emersion are shown in table below.

Action Type	Description
Message	Creates an email message using the *message template*. You can configure each message template with various recipients, fields and text. A separate message template can be created for each action type. When the event is triggered, the system automatically creates emails that are queued for delivery.
Log	Writes a record into the system log containing details of the event and a *tag*. A *tag* is a keyword or term that you assign to an event to quickly identify the information. You can set up different tags for each event, as well as configure the log template with various fields and text. When the event is triggered, the system automatically creates the log entry.
Notification	Causes a *notification alert* or message to display at the top of the page when users log into the system. The message is visible to all users. You can set up the message template with the text and other information to show.
Workflow	Used to call an internal system *workflow* or process, such as running daily reports, generate invoices, and provisioning. Workflow actions can only be set up by the Emersion support staff. Please contact our support team for further information.

Templates

Templates define the output of event actions. Some actions require a linked template without which the complete event cannot be successfully triggered. Other actions do not require templates.

Each template is further associated with a set of event variables that the system passes through from the triggered event. Each event type has a different set of variables available that can be configured in the template as required. In addition, pre-defined template types are used for each event action type. For example, the *Account Password Changed* event has separate templates for the *Log* action, the *Notification* action, and the *Message* action. A number of variables are available for use in each of these templates, such as customer number, customer name, password, customer primary email, and address.

To Display Templates

1. Select **Events** > **Templates** > from the **Menu.** A list of existing templates will be shown.

Figure 1. The Template list page

2. Click the template *ID* or *Name* in the list. The selected template will be displayed.
3. Click the **Return to list** button to exit.

To Create a Template

1. Select **Events** > **Templates** > from the **Menu.** A list of existing templates will be shown.
2. Click the **Create New Template** button. The *Create a Template* page will appear.

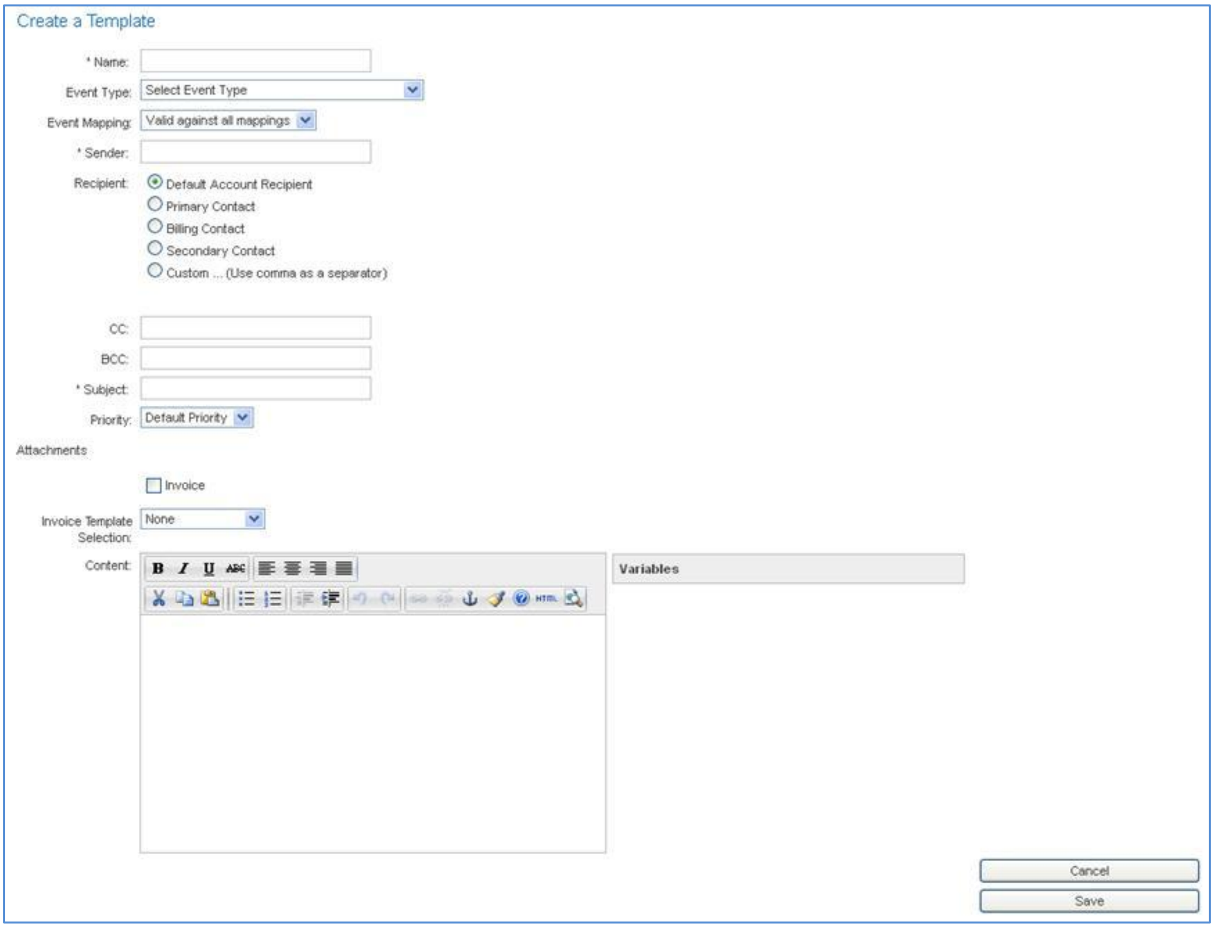

Figure 2. The Create Template page

3. Enter the *Name* or description to give the template.
4. Select an *Event Type* from the drop list.
5. Select the *Event Mapping* required.

   The list will only show the event mappings that Emersion has mapped for you. If the required mapping is not shown, please contact the Emersion support team.
6. Enter the *Sender* name / email address. This name will appear in the message *From* field.
7. Select the required *Recipient* using the option buttons, as follows:
   - Default Account Recipient
   - Primary Contact
   - Billing Contact
   - Secondary Contact
   - Custom - enter the email address(es) to send the email, separate by a comma

   The system uses the email address recorded against the account, or the email address entered, to send the event message.
8. Enter a *CC* recipient if required.
9. Enter a *BCC* recipient if required.
10. Enter the *Subject* text to show in the email subject line.
11. Select event variables to include in the subject line from the list of *Variables* that appear beside the Subject field, which are specific to the Event Type selected.

    Click the variable name in the list. The variable *code* (e.g. *'%%package_subscription_name%%*', *'{account->id}*', *'%%FNN%%*', etc.) will be added to the subject field. Position it within the text as required.
12. Select the email Priority from the drop list (i.e. Low, Default, High).
13. Use the *Invoice* check box under *Attachments* to indicate whether to attach the invoice to the email or not. Attaching the invoice is only valid against the 'Invoice Delivery', 'Invoice Due', 'Invoice Overdue' and 'Invoice Post' event types.
14. Select the *Invoice Template* to attach in the drop list.
15. Enter the message text in the *Content* box.

    The *Content* box is a basic HTML editor (i.e. tinyMCE). Some standard text formatting options are available.

    To add graphics to the message, such as an image or logo, the image file needs to be hosted externally. This is the preferred way of handling images in a message, rather than as attachments. This is done by editing the HTML directly, using the *Edit HTML Source* function, and including the image in the HTML code directly.
16. Insert the required event *Variables* into the message. Different event types will have different event variables available. These are shown beside the *Content* box.
17. Insert event variables to include in the message from the list of *Variables* that appear beside the Content box, which are specific to the Event Type.

    Click the variable name in the list. The variable *code* will be added to the subject field. Position it within the text as required.
18. Use the *Preview* function to see how the message will appear to the customer.
19. Click the **Save** button. The Template details will display.
20. Click the **Return to list** button to exit.

To Edit a Template

1. Select **Events** > **Templates** > from the **Menu.** A list of existing templates will be shown.
2. Click the template *ID* or *Name* in the list. The selected template will be displayed.
3. Click the **Edit** button.
4. Enter or modify information in the appropriate fields.
5. Click the **Save** button. The updated template details will display, with an information box showing the template has been saved successfully. You can close the information box by clicking the blue cross.
6. Click the **Return to list** button to exit.

To Delete a Template

1. Select **Events** > **Templates** > from the **Menu.** A list of existing templates will be shown.
2. Click Delete Template beside the required template in the **Delete Mapping** column. An information box will display showing that the template has been deleted.

Account Profiles

Account Profiles are a simple grouping of customer accounts. This can help you identify customers based on their profile. For example, you may set up an account profile for business customers, and another for residential customers. Different event actions may then be performed against each profile.

An event can contain multiple actions, each of which can be linked to a different account profile. Each event action must be linked to at least one account profile before the system will trigger the event. When an event is created, you can choose which account profile, or multiple account profiles, to link to each event action. The event actions are then only carried out against accounts that match the specified profile(s). The actions and account profiles are configured by Emersion's support team.

You can create one or many account profiles as required. However, each customer account can only be mapped to a single account profile, or left blank (i.e. not linked to any profile).

To Create an Account Profile

1. Select **Admin** > **Settings** > from the **Menu.**
2. Select the **Account Profiles** tab. A list of existing account profiles will be shown.

Figure 3. The Account Profile list page

3. Click the **Create New** button. The *New Account Profile* page will appear.

Figure 4. The New Account Profile page

4. Enter the *Name* of the new account profile.
5. Enter a *Description* of the new account profile.
6. Click the **Save** button.
7. To cancel without saving, click the **Back to Profile List** button.

To Edit an Account Profile

1. Select **Admin** > **Settings** > from the **Menu.**
2. Select the **Account Profiles** tab. A list of existing account profiles will be shown.
3. Click the account profile *Name* or *Description* in the list. The selected account profile will be displayed showing a list of accounts and the current profile the account is linked to.
4. Edit the *Name* and *Description* of the account profile.
5. Click the **Save Profile Details** button to save the changes.
6. Click the **Back to Profile List** button to exit.

To Link a Customer Account to an Account Profile

From the *Edit Account Profile* page:

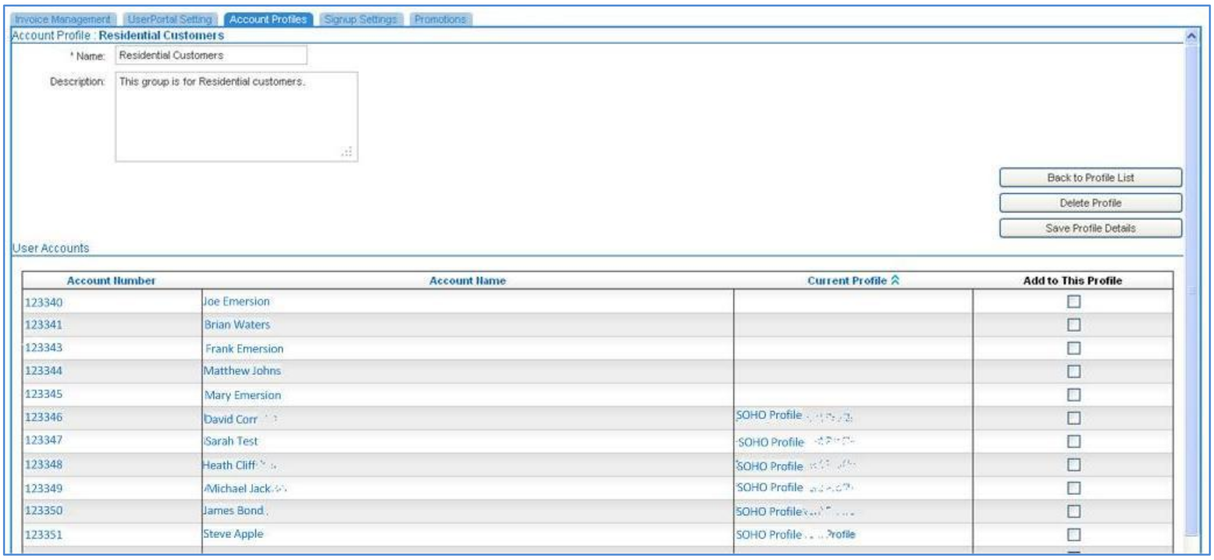

Figure 5. The Edit Account Profile page

1. In the list of accounts, navigate to the customer accounts you wish to link to the current account profile.
2. If the account is not linked to an account profile (i.e. the *Current Profile* column is empty), click the check box beside the account in the **Add to This Profile** column.

   If the account is already linked to an account profile, you cannot link it to another account profile. However, you can change the account profile an account is linked to from the *Customers* menu (see below).
3. Click the **Save Profile Details** button.

From the *Customers* menu:

1. Select **Customers** > **Customer List** > from the **Menu**.
2. Locate the customer you wish to update and click the customer's *Account Number* of *Customer Name* or *Description* in the list. The selected customer details will be displayed.
3. Select the **Profiles** tab. The account profile that the customer is currently linked to will display.
4. Select the required account profile in the **Name** drop list.
5. Click the **Save** button to save the change.

To Delete an Account Profile

Only account profiles that have no accounts linked to them may be deleted.

1. Select **Admin** > **Settings >** from the **Menu.**
2. Select the **Account Profiles** tab. A list of existing account profiles will be shown.
3. Click the account profile *Name* or *Description* in the list. The selected account profile will be displayed. If there are no accounts linked to the profile, the *Delete Profile* button will be visible. If there are any accounts linked to the account profile, the *Delete Profile* button will not be shown.
4. Click the **Delete Profile** button to delete the profile.
5. The *Account Profile* list page will be displayed.

Event Message Queue

The Emersion Cumulus User Interface contains a *Message Queue* function that lists all event messages sent via email by the Events system. This function can be used to confirm that the events have triggered successfully, and the actions have completed. Every email message sent when each event was triggered can be viewed in full.

To View the Message Queue

1. Select **Events** > **Message Queue** > from the **Menu.** A list of messages sent will be shown, with the *ID*, the message Type and the *Message* text.
2. Use the page numbers at the bottom of the page to navigate through the list of messages.

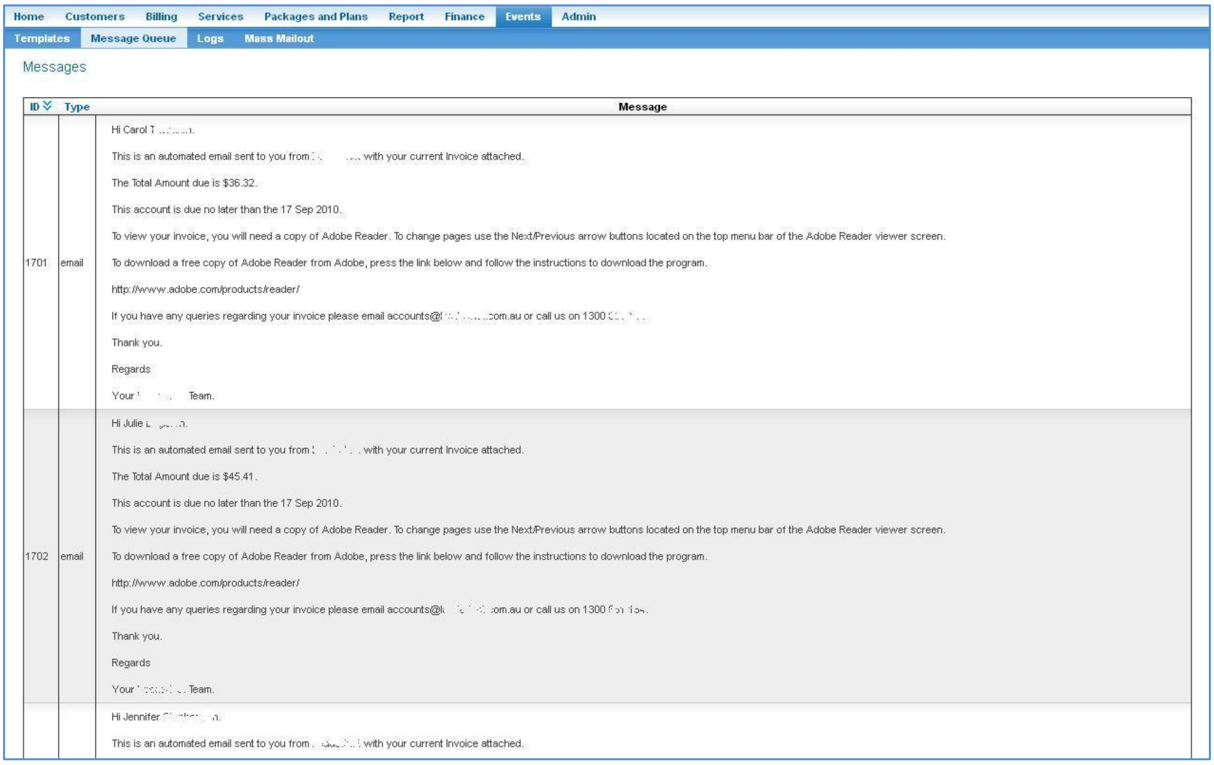

Figure 6. The Event Message Queue page

Event Log

The Event Log function lists all triggered events that were mapped with the action type of *Log*, along with the message details. This can be used to review the various information contained in the log message. Every log message recorded when the event was triggered can be viewed in full.

To View the Log

1. Select **Events** > **Log** > from the **Menu.** A list of events that triggered a *Log* action will be shown, with the *ID*, *Tag*, *Message* text and the related customer *Account Number*.
2. Use the page numbers at the bottom of the page to navigate through the log.
3. To find a specific event log entries, enter the *ID*, *Tag* or *Message* in the search fields and click the **Search** button. The system will show all matching log entries.

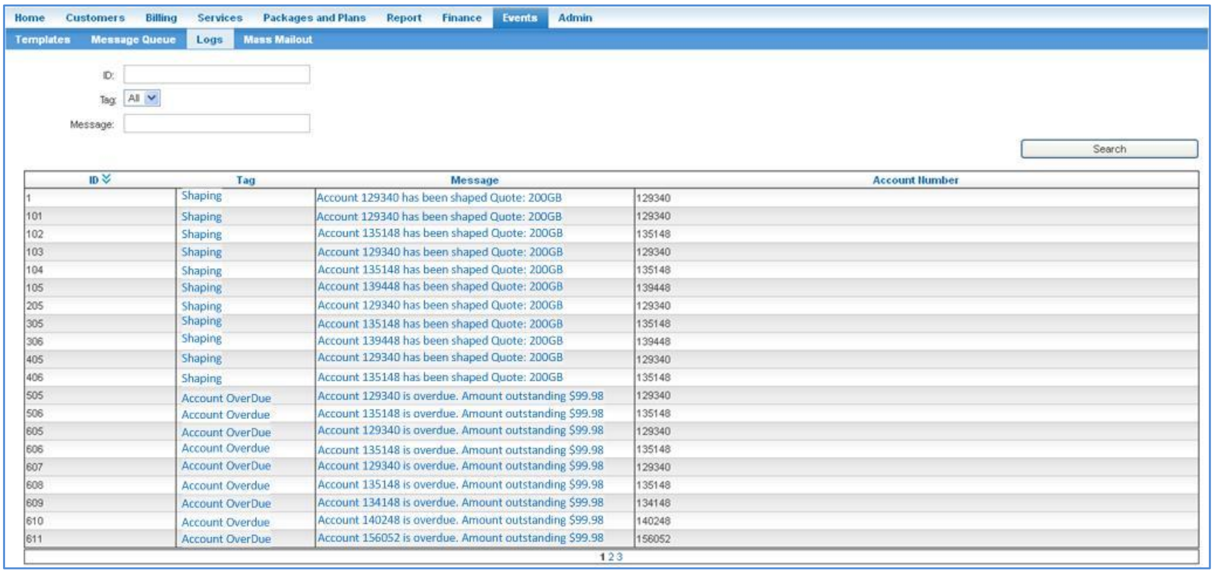

Figure 7. The Event Log page

Mass Mailout

The Mass Mailout function uses the Emersion Event system to send bulk emails to customers. You can use it to send any type of notice to your customers. For example, advise of temporary outages or service adjustments, or maybe to announce new services and features, or even to send newsletters.

Each mass mailout *event* is set up via a mailout template, similar to event templates. After you have set up mailout templates, you can add recipients from your customer accounts. Recipients are not linked or saved against the mailout template. They are selected for the purpose of a one off mailout. You select recipients separately for each mailout. Once you have confirmed the recipient list, the mass mailout can be saved and sent.

To Create a Mass Mailout Template

1. Select **Events** > **Mass Mailout** > from the **Menu.** A list of existing mailout templates will be shown, with the *ID*, *Name*, and *Event* (which is always Mailout*).*

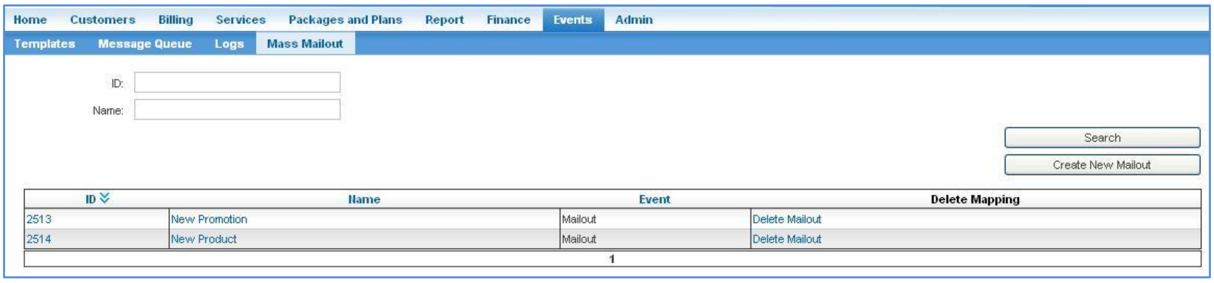

Figure 8. The Create new Mailout Template page

2. Click the **Create New Mailout** button. The *Create a new Mailout Template* page will appear.

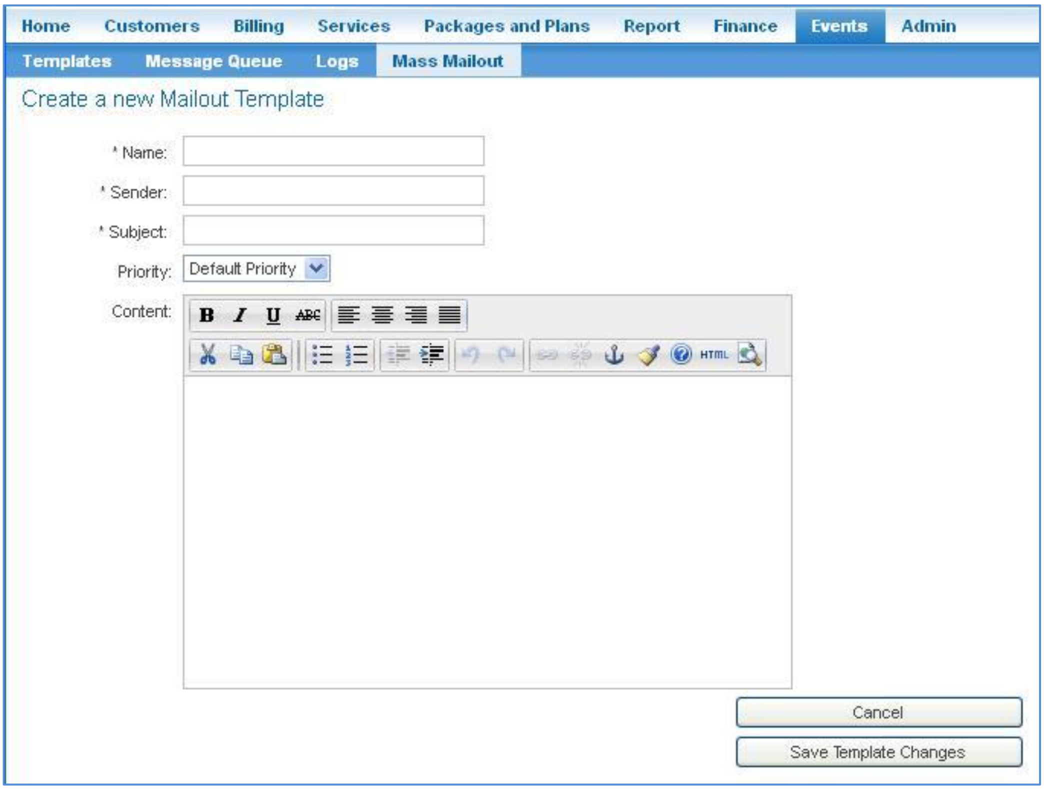

Figure 9. The Create new Mailout Template page

3. Enter a *Name* for the mass mailout template.
4. Enter the *Sender* name / email address. This name will appear in the email *From* field.

5. Enter the *Subject* text to show in the email subject line.
6. Select the email Priority from the drop list (i.e. Low, Default, High).
7. Enter the message text in the *Content* box.

   The *Content* box is a HTML editor (tinyMCE). Some standard text formatting options are available.

   To add graphics to the message, such as an image or logo, the image file needs to be hosted externally. This is the preferred way of handling images in a message, rather than as attachments. This is done by editing the HTML directly, using the *Edit HTML Source* function, and including the image in the HTML code directly.
8. Click the **Save Template Changes** button. The mailout template list page will be displayed.

To Add Recipients to Mass Mailout

1. Select **Events** > **Mass Mailout** > from the **Menu.** A list of existing mailout templates will be shown, with the *ID*, *Name*, and *Event* (which is always Mailout*).*
2. Click the mailout template *ID* or *Name* in the list. The *Edit Existing Mailout* page will appear.
3. Click the **Select Users & Prepare for Sending** button. The *Setup mailout recipients* page will appear.

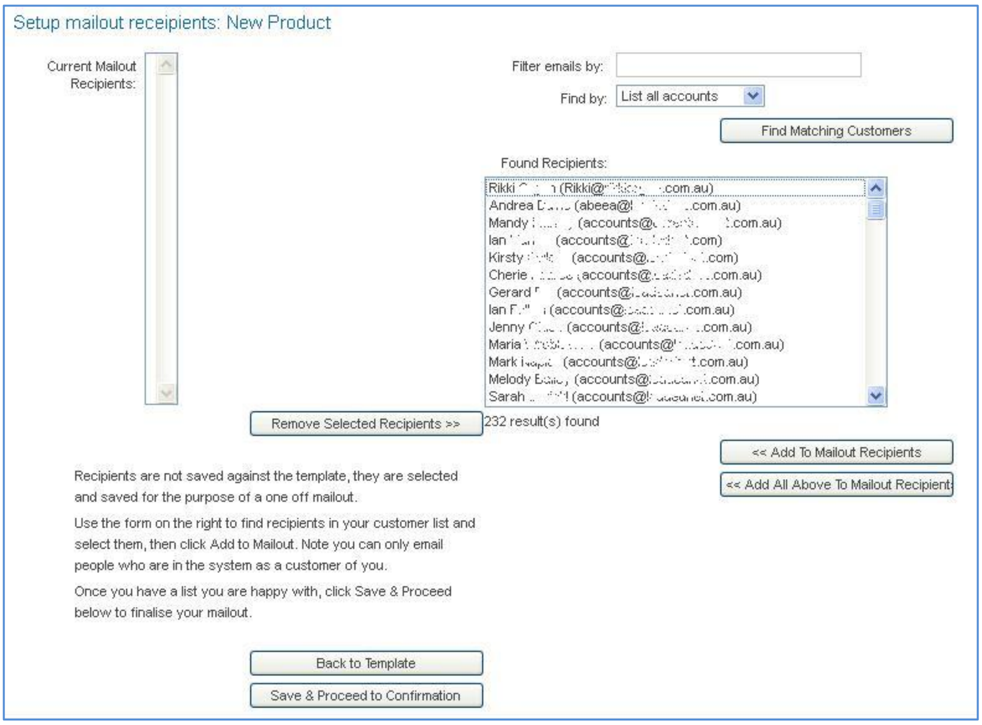

Figure 10. The Create new Mailout Template page

4. Click the **Find Matching Customers** button to display a list of customers' email addresses.
5. To find particular customers:
   a. Enter the required text in the *Filter emails by* field.
   b. Select whether to search by All, Name, Username, Email Address or Service Type in the *Find by* drop list.

      If search by Service Type is selected, the *Filter emails by* field will list all available service types. Select the required service from the drop list.
   c. Click the **Find Matching Customers** button. All matching customers' email addresses will be displayed.

6. Highlight the required customers' email addresses in the *Found Recipients* list.
7. Click the **Add To Mailout Recipients** button. The selected email addresses will be displayed in the *Current Mailout Recipients* list on the left hand side.
8. To add all customers listed in the *Found Recipients* list, click the **Add All Above To Mailout Recipient** button.
9. To remove recipients, highlight the required customers' email addresses in the *Current Mailout Recipients* list and click **Remove Selected Recipients** button. The selected email addresses will be removed from the list.
10. Once all required recipients have been selected, click the **Save & Proceed to Confirmation** button. The *Review and Confirm* page will appear, showing the mailout template with the list of recipients.

    To return to the mailout template, click the **Back to Template** button.

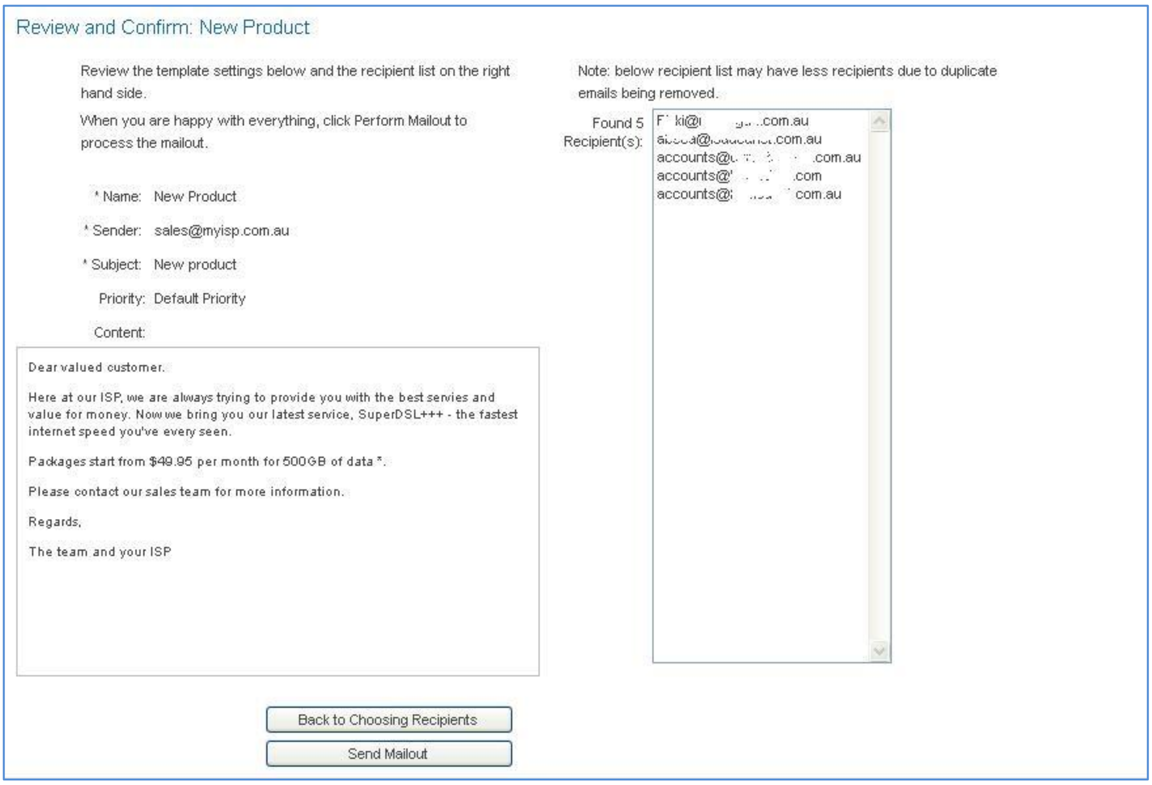

Figure 11. The Review and Confirm page

11. Click the **Send Mailout** button. A message will appear prompting you to confirm that you are ready to send this mailout. This cannot be reversed.
12. Click the **OK** button to send the mass mailout. The mailout template list page will be displayed with an information box showing the message has been queued for delivery.

    To return to the *Review and Confirm* page without sending, click the **Cancel** button.
13. To exit without sending, click the **Back to Choosing Recipients** button.

To Edit a Mailout Template

1. Select **Events** > **Mass Mailout** > from the **Menu.** A list of existing mailout templates will be shown, with the *ID*, *Name*, and *Event.*
2. Click the mailout template *ID* or *Name* in the list. The *Edit Existing Mailout* page will appear.

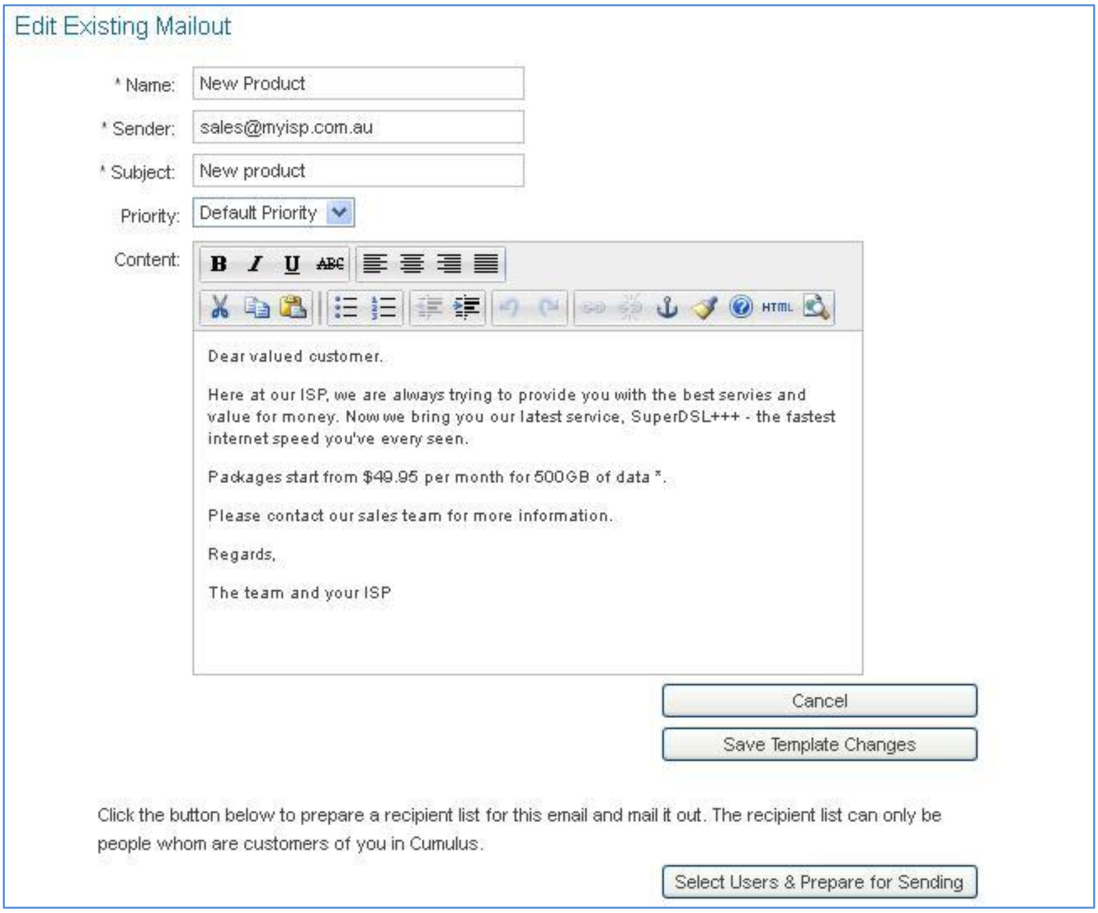

Figure 12. The Edit Existing Mailout page

3. Enter or modify the template information in the appropriate fields.
4. Click the **Save Template Change** button. The mailout template list page will be displayed with an information box showing the template has been saved successfully.

To Delete a Template

1. Select **Events** > **Mass Mailout** > from the **Menu.** A list of existing mailout templates will be shown, with the *ID*, *Name*, and *Event* (which is always Mailout)*.*
2. Click **Delete Mailout** beside the required template in the **Delete Mapping** column. An information box will display showing the template has been deleted.

Further Information

For further information about Emersion's Events System, 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