

Event Handlers

Creating an event handler in Blesta consists of merely filling in a stubbed callback method, or returning an array of callbacks from a plugin's `getEvents()` method. Blesta offers a number of events that are automatically triggered when needed. The default handlers for these events may be found in the `/installdir/core/Util/Events/Observers/` directory (`/installdir/components/events/default/` in the old system). You can paste your event handler code directly into any of the default handler methods, or more preferably, create a [plugin to handle the event](#).

Events



Create a Plugin to Handle these Events

Any plugin can register an event handler. To see how, check out the [Plugin Events](#) section of this manual.



Deprecated Handlers

As of v4.3.0 all of the old event handlers from the Events component (under `/installdir/components/events/default/`) have been deprecated. It is highly recommended that you update your custom events to use the new namespaced event system.

If your plugin uses any of the events below, you need only be sure that your event handler support the deprecated `EventObject` event as well as the new `\Blesta\Core\Util\Events\Common\EventInterface` event.



Refetching Data

When using data from events (especially add events), you may find that certain fields are not available. It is often useful to refetch data using one of `[Model]::get()` methods rather than using something like `vars`.

Event	Triggered When	Default Event Handler	Parameters	Returns	Since
Appcontroller. preAction	A URI is requested	<code>\Blesta\Core\Util\Events\Observers\AppController::preAction()</code> Deprecated: <code>EventsAppControllerCallback::preAction()</code>	void	void	3.0
Appcontroller. structure	A URI is requested without AJAX	<code>\Blesta\Core\Util\Events\Observers\AppController::structure()</code> Deprecated: <code>EventsAppControllerCallback::structure()</code>	• controller - The controller being requested • action - The action being requested • portal - The portal in use ('admin' or 'client') • get (since version 4.3) - The GET page arguments • plugin (since version 4.3) - The name of the plugin in the request, if any, otherwise <i>null</i>	array Key/value pairs to be set as variables in the structure view. Special keys include: • head - An array of markup to set in the <head> tag • body_start - An array of markup to set just after the <body> tag • body_end - An array of markup to set just before the </body> tag	3.3
CalendarEvents. addBefore	A calendar event is created	<code>\Blesta\Core\Util\Events\Observers\CalendarEvents::addBefore()</code>	• vars - An array of input data which may include: ◦ company_id - The ID of the company under which this event was added ◦ staff_id - The ID of the staff member that created this event ◦ shared* - Whether or not this event is shared among other staff members of this company ◦ title - The title of the event ◦ url* - The URL this event is linked to ◦ start_date - The start date of the event ◦ end_date - The end date of the event ◦ all_day* - Whether or not this event spans the entire day of the start/end dates	array Key/value pairs to be set as variables in the CalendarEvents::add() method. Special keys include: • vars - An array of input data which may include: ◦ company_id - The ID of the company under which this event was added ◦ staff_id - The ID of the staff member that created this event ◦ shared* - Whether or not this event is shared among other staff members of this company ◦ title - The title of the event ◦ url* - The URL this event is linked to ◦ start_date - The start date of the event ◦ end_date - The end date of the event ◦ all_day* - Whether or not this event spans the entire day of the start/end dates	5.3

CalendarEvents.addAfter	A calendar event is created	\Blesta\Core\Utilities\Events\Observers\CalendarEvents::addAfter() Deprecated: \Blesta\Core\Utilities\Events\Observers\CalendarEvents::add() - EventsCalendarEventsCallback::add()	calendar_event_id - The ID of the calendar event that was created. vars - An array of input data which may include: company_id - The ID of the company under which this event was added staff_id - The ID of the staff member that created this event shared* - Whether or not this event is shared among other staff members of this company title - The title of the event url* - The URL this event is linked to start_date - The start date of the event end_date - The end date of the event all_day* - Whether or not this event spans the entire day of the start/end dates	void	4.1
CalendarEvents.editBefore	A calendar event is updated	\Blesta\Core\Utilities\Events\Observers\CalendarEvents::editBefore() 	calendar_event_id - The ID of the calendar event that was updated. vars - An array of input data which may include: company_id - The ID of the company under which this event was added staff_id - The ID of the staff member that created this event shared* - Whether or not this event is shared among other staff members of this company title - The title of the event url* - The URL this event is linked to start_date - The start date of the event end_date - The end date of the event all_day* - Whether or not this event spans the entire day of the start/end dates	array Key/value pairs to be set as variables in the CalendarEvents::edit() method. Special keys include: vars - An array of input data which may include: company_id - The ID of the company under which this event was added staff_id - The ID of the staff member that created this event shared* - Whether or not this event is shared among other staff members of this company title - The title of the event url* - The URL this event is linked to start_date - The start date of the event end_date - The end date of the event all_day* - Whether or not this event spans the entire day of the start/end dates	5.3
CalendarEvents.editAfter	A calendar event is updated	\Blesta\Core\Utilities\Events\Observers\CalendarEvents::editAfter() Deprecated: \Blesta\Core\Utilities\Events\Observers\CalendarEvents::edit() - EventsCalendarEventsCallback::edit()	calendar_event_id - The ID of the calendar event that was updated. vars - An array of input data which may include: company_id - The ID of the company under which this event was added staff_id - The ID of the staff member that created this event shared* - Whether or not this event is shared among other staff members of this company title - The title of the event url* - The URL this event is linked to start_date - The start date of the event end_date - The end date of the event all_day* - Whether or not this event spans the entire day of the start/end dates old_calendar_event (since version 4.3) - An object representing the previous state of the calendar object company_id - The ID of the company under which this event was added staff_id - The ID of the staff member that created this event shared - Whether or not this event is shared among other staff members of this company title - The title of the event url - The URL this event is linked to start_date - The start date of the event end_date - The end date of the event all_day - Whether or not this event spans the entire day of the start/end dates staff_first_name - The first name of the staff user that create the calendar event staff_last_name - The last name of the staff user that create the calendar event	void	4.1
CalendarEvents.deleteBefore	A calendar event is removed	\Blesta\Core\Utilities\Events\Observers\CalendarEvents::deleteBefore() 	calendar_event_id - The ID of the calendar event that was removed.	void	5.3
CalendarEvents.deleteAfter	A calendar event is removed	\Blesta\Core\Utilities\Events\Observers\CalendarEvents::deleteAfter() Deprecated: \Blesta\Core\Utilities\Events\Observers\CalendarEvents::delete() - EventsCalendarEventsCallback::delete()	calendar_event_id - The ID of the calendar event that was removed. old_calendar_event (since version 4.3) - An object representing the previous state of the calendar object company_id - The ID of the company under which this event was added staff_id - The ID of the staff member that created this event shared - Whether or not this event is shared among other staff members of this company title - The title of the event url - The URL this event is linked to start_date - The start date of the event end_date - The end date of the event all_day - Whether or not this event spans the entire day of the start/end dates staff_first_name - The first name of the staff user that create the calendar event staff_last_name - The last name of the staff user that create the calendar event	void	4.1

ClientGroups. addBefore	A client group is created	\Blesta\Core\Utilities\Events\Observers\ClientGroups::addBefore() Deprecated: \Blesta\Core\Utilities\Events\Observers\ClientGroups::add() - EventsClientGroupsCallback::add()	vars - An array of input data which may include: name - The name of this group description* - A description of this group company_id - The company ID this group belongs to color* - The HTML color that represents this group	array Key/value pairs to be set as variables in the ClientGroups::add() method. Special keys include: vars - An array of input data which may include: name - The name of this group description* - A description of this group company_id - The company ID this group belongs to color* - The HTML color that represents this group	5.3
ClientGroups. addAfter Deprecated: ClientGroups.add	A client group is created	\Blesta\Core\Utilities\Events\Observers\ClientGroups::add() Deprecated: \Blesta\Core\Utilities\Events\Observers\ClientGroups::add() - EventsClientGroupsCallback::add()	client_group_id - The ID of the client group that was created. vars - An array of input data which may include: name - The name of this group description* - A description of this group company_id - The company ID this group belongs to color* - The HTML color that represents this group	void	4.1
ClientGroups. editBefore	A client group is updated	\Blesta\Core\Utilities\Events\Observers\ClientGroups::editBefore() Deprecated: \Blesta\Core\Utilities\Events\Observers\ClientGroups::edit() - EventsClientGroupsCallback::edit()	client_group_id - The ID of the client group that was updated. vars - An array of input data which may include: name - The name of this group description* - A description of this group company_id - The company ID this group belongs to color* - The HTML color that represents this group	array Key/value pairs to be set as variables in the ClientGroups::edit() method. Special keys include: vars - An array of input data which may include: name - The name of this group description* - A description of this group company_id - The company ID this group belongs to color* - The HTML color that represents this group	5.3
ClientGroups. editAfter Deprecated: ClientGroups.edit	A client group is updated	\Blesta\Core\Utilities\Events\Observers\ClientGroups::edit() Deprecated: \Blesta\Core\Utilities\Events\Observers\ClientGroups::edit() - EventsClientGroupsCallback::edit()	client_group_id - The ID of the client group that was updated. vars - An array of input data which may include: name - The name of this group description* - A description of this group company_id - The company ID this group belongs to color* - The HTML color that represents this group old_client_group (since version 4.3) - An object representing the previous state of the group id - The ID of this group name - The name of this group description - A description of this group company_id - The company ID this group belongs to color - The HTML color that represents this group	void	4.1
ClientGroups. deleteBefore	A client group is removed	\Blesta\Core\Utilities\Events\Observers\ClientGroups::deleteBefore() Deprecated: \Blesta\Core\Utilities\Events\Observers\ClientGroups::delete() - EventsClientGroupsCallback::delete()	client_group_id - The ID of the client group that was removed.	void	5.3
ClientGroups. deleteAfter Deprecated: ClientGroups.delete	A client group is removed	\Blesta\Core\Utilities\Events\Observers\ClientGroups::delete() Deprecated: \Blesta\Core\Utilities\Events\Observers\ClientGroups::delete() - EventsClientGroupsCallback::delete()	client_group_id - The ID of the client group that was removed. old_client_group (since version 4.3) - An object representing the previous state of the group id - The ID of this group name - The name of this group description - A description of this group company_id - The company ID this group belongs to color - The HTML color that represents this group	void	4.1
Clients. addBefore	A client is added	\Blesta\Core\Utilities\Events\Observers\Clients::addBefore() Deprecated: \Blesta\Core\Utilities\Events\Observers\Clients::add() - EventsClientsCallback::add()	vars - An array of input data which may include: id_code - The client's reference ID code user_id - The client's user ID client_group_id - The client group this user belongs to status* - The status of this client	array Key/value pairs to be set as variables in the Clients::add() method. Special keys include: vars - An array of input data which may include: id_code - The client's reference ID code user_id - The client's user ID client_group_id - The client group this user belongs to status* - The status of this client	5.3

Clients. addAfter Deprecate d: Clients. add	A client is added	\Blesta\Core\Util\Events\Observers\Clients::addAfter() Deprecated: • \Blesta\Core\Util\Events\Observers\Clients::add() • EventsClientsCallback::add()	• client_id - The ID of the client that was added. • vars - An array of input data which may include: ◦ id_code - The client's reference ID code ◦ user_id - The client's user ID ◦ client_group_id - The client group this user belongs to ◦ status* - The status of this client	void	4.1
Clients. addNoteBefore	A note is created	\Blesta\Core\Util\Events\Observers\Clients::addNoteBefore()	• vars - An array of input data which may include: ◦ title - The title of the note ◦ description - The description of the note ◦ sticked* - Whether this note is stucked or not	array Key/value pairs to be set as variables in the Clients::addNote() method. Special keys include: • vars - An array of input data which may include: ◦ title - The title of the note ◦ description - The description of the note ◦ sticked* - Whether this note is stucked or not	5.3
Clients. addNoteAfter Deprecate d: Clients. addNote	A note is created	\Blesta\Core\Util\Events\Observers\Clients::addNoteAfter() Deprecated: • \Blesta\Core\Util\Events\Observers\Clients::addNote() • EventsClientsCallback::addNote()	• note_id - The ID of the note that was created. • vars - An array of input data which may include: ◦ title - The title of the note ◦ description - The description of the note ◦ sticked* - Whether this note is stucked or not	void	4.1
Clients. createBefore	A client is created	\Blesta\Core\Util\Events\Observers\Clients::createBefore()	• vars - An array of input data which may include: ◦ username - The username for this user ◦ new_password - The password for this user ◦ confirm_password - The password for this user ◦ client_group_id - The client group this user belongs to ◦ status - The status of this client ('active', 'inactive', 'fraud') ◦ first_name - The first name of this contact ◦ last_name - The last name of this contact ◦ title - The business title for this contact ◦ company - The company/organization this contact belongs to ◦ email - This contact's email address ◦ address1 - This contact's address ◦ address2 - This contact's address line two ◦ city - This contact's city (optional) ◦ state - The 3-character ISO 3166-2 subdivision code ◦ zip - The zip/postal code for this contact ◦ country - The 2-character ISO 3166-1 country code ◦ numbers - An array of number data ◦ custom - An array of custom fields in key/value format ◦ settings - An array of client settings ◦ send_registration_email - 'true' to send client welcome email, 'false' otherwise	array Key/value pairs to be set as variables in the Clients::create() method. Special keys include: • vars - An array of input data which may include: ◦ username - The username for this user ◦ new_password - The password for this user ◦ confirm_password - The password for this user ◦ client_group_id - The client group this user belongs to ◦ status - The status of this client ('active', 'inactive', 'fraud') ◦ first_name - The first name of this contact ◦ last_name - The last name of this contact ◦ title - The business title for this contact ◦ company - The company/organization this contact belongs to ◦ email - This contact's email address ◦ address1 - This contact's address ◦ address2 - This contact's address line two ◦ city - This contact's city (optional) ◦ state - The 3-character ISO 3166-2 subdivision code ◦ zip - The zip/postal code for this contact ◦ country - The 2-character ISO 3166-1 country code ◦ numbers - An array of number data ◦ custom - An array of custom fields in key/value format ◦ settings - An array of client settings ◦ send_registration_email - 'true' to send client welcome email, 'false' otherwise	5.3
Clients. createAfter Deprecate d: Clients. create	A client is created	\Blesta\Core\Util\Events\Observers\Clients::createAfter() Deprecated: • \Blesta\Core\Util\Events\Observers\Clients::create() • EventsClientsCallback::create()	• client - An object representing the client that was created.	void	3.1

Clients. editBefore	A client is updated	\Blesta\Core\Util\Events\Observers\Clients::editBefore()	• client_id - The ID of the client that was updated. • vars - An array of input data which may include: ◦ id_code - The client's reference ID code ◦ user_id - The client's user ID ◦ client_group_id - The client group this user belongs to ◦ status* - The status of this client	array Key/value pairs to be set as variables in the Clients::edit() method. Special keys include: • vars - An array of input data which may include: ◦ id_code - The client's reference ID code ◦ user_id - The client's user ID ◦ client_group_id - The client group this user belongs to ◦ status* - The status of this client	5.3
Clients. editAfter Deprecated: Clients. edit	A client is updated	\Blesta\Core\Util\Events\Observers\Clients::editAfter() Deprecated: • \Blesta\Core\Util\Events\Observers\Clients::edit() • EventsClientsCallback::edit()	• client_id - The ID of the client that was updated. • vars - An array of input data which may include: ◦ id_code - The client's reference ID code ◦ user_id - The client's user ID ◦ client_group_id - The client group this user belongs to ◦ status* - The status of this client • old_client (since version 4.3) - An object representing the previous state of the client ◦ id - Internal ID of the group ◦ id_format - The format with which to display the ID ◦ id_value - The ID of the client to use for display ◦ id_code - The client's reference ID code ◦ user_id - The client's user ID ◦ client_group_id - The client group this user belongs to ◦ status - The status of this client ◦ primary_account_id - The ID of the primary payment account for this client ◦ primary_account_type - The type of the primary payment account for this client ◦ settings - A list of client settings	void	4.1
Clients. editNoteBefore	A note is updated	\Blesta\Core\Util\Events\Observers\Clients::editNoteBefore()	• note_id - The ID of the note that was updated. • vars - An array of input data which may include: ◦ title - The title of the note ◦ description - The description of the note ◦ sticked* - Whether this note is stucked or not	array Key/value pairs to be set as variables in the Clients::editNote() method. Special keys include: • vars - An array of input data which may include: ◦ title - The title of the note ◦ description - The description of the note ◦ sticked* - Whether this note is stucked or not	5.3
Clients. editNoteAfter Deprecated: Clients. editNote	A note is updated	\Blesta\Core\Util\Events\Observers\Clients::editNoteAfter() Deprecated: • \Blesta\Core\Util\Events\Observers\Clients::editNote() • EventsClientsCallback::editNote()	• note_id - The ID of the note that was updated. • vars - An array of input data which may include: ◦ title - The title of the note ◦ description - The description of the note ◦ sticked* - Whether this note is stucked or not • old_client_note (since version 4.3) - An object representing the previous state of the client note ◦ id - The ID of client note ◦ client_id - The ID the client to which this note is assign ◦ staff_id - The ID of the staff member that created this note ◦ title - The title of the note ◦ description - The full description of this note ◦ sticked - Whether to display this not on the client note ◦ date_added - The timestamp in UTC that the note was added ◦ date_updated - The timestamp in UTC that the note was last updated	void	4.1
Clients. deleteBefore	A client is removed	\Blesta\Core\Util\Events\Observers\Clients::deleteBefore()	• client_id - The ID of the client that was removed.	void	5.3
Clients. deleteAfter Deprecated: Clients. delete	A client is removed	\Blesta\Core\Util\Events\Observers\Clients::deleteAfter() Deprecated: • \Blesta\Core\Util\Events\Observers\Clients::delete() • EventsClientsCallback::delete()	• client_id - The ID of the client that was removed. • old_client (since version 4.3) - An object representing the previous state of the client ◦ id - Internal ID of the group ◦ id_format - The format with which to display the ID ◦ id_value - The ID of the client to use for display ◦ id_code - The client's reference ID code ◦ user_id - The client's user ID ◦ client_group_id - The client group this user belongs to ◦ status - The status of this client ◦ primary_account_id - The ID of the primary payment account for this client ◦ primary_account_type - The type of the primary payment account for this client ◦ settings - A list of client settings	void	4.1
Clients. deleteNoteBefore	A note is removed	\Blesta\Core\Util\Events\Observers\Clients::deleteNoteBefore()	• note_id - The ID of the note that was removed.	void	5.3

Clients. deleteNote After Deprecate d: Clients. deleteNote	A note is removed	\Blesta\Core\Util\Events\Observers\Clients::deleteNoteAfter() Deprecate d: \Blesta\Core\Util\Events\Observers\Clients::deleteNote() - Events\ClientsCallback::deleteNote()	note_id - The ID of the note that was removed. old_client_note - An object representing the previous state of the client note id - The ID of client note client_id - The ID the client to which this note is assign staff_id - The ID of the staff member that created this note title - The title of the note description - The full description of this note stickied - Whether to display this not on the client note date_added - The timestamp in UTC that the note was added date_updated - The timestamp in UTC that the note was last updated	void	4.1
Companie s. addBefore	A company is created	\Blesta\Core\Util\Events\Observers\Companies::addBefore() Deprecate d: \Blesta\Core\Util\Events\Observers\Companies::add() - Events\CompaniesCallback::add()	vars - An array of input data which may include: name - The name of the company hostname - The hostname of the company address* - The address of the company phone* - The phone number of the company fax* - The fax number of the company	array Key/value pairs to be set as variables in the Companies::add() method. Special keys include: vars - An array of input data which may include: name - The name of the company hostname - The hostname of the company address* - The address of the company phone* - The phone number of the company fax* - The fax number of the company	5.3
Companie s.addAfter	A company is created	\Blesta\Core\Util\Events\Observers\Companies::addAfter() Deprecate d: \Blesta\Core\Util\Events\Observers\Companies::add() - Events\CompaniesCallback::add()	company_id - The ID of the company that was created. vars - An array of input data which may include: name - The name of the company hostname - The hostname of the company address* - The address of the company phone* - The phone number of the company fax* - The fax number of the company	void	4.1
Companie s. editBefore	A company is updated	\Blesta\Core\Util\Events\Observers\Companies::editBefore() Deprecate d: \Blesta\Core\Util\Events\Observers\Companies::edit() - Events\CompaniesCallback::edit()	company_id - The ID of the company that was updated. vars - An array of input data which may include: name - The name of the company hostname - The hostname of the company address* - The address of the company phone* - The phone number of the company fax* - The fax number of the company	array Key/value pairs to be set as variables in the Companies::edit() method. Special keys include: vars - An array of input data which may include: name - The name of the company hostname - The hostname of the company address* - The address of the company phone* - The phone number of the company fax* - The fax number of the company	5.3
Companie s.editAfter	A company is updated	\Blesta\Core\Util\Events\Observers\Companies::editAfter() Deprecate d: \Blesta\Core\Util\Events\Observers\Companies::edit() - Events\CompaniesCallback::edit()	company_id - The ID of the company that was updated. vars - An array of input data which may include: name - The name of the company hostname - The hostname of the company address* - The address of the company phone* - The phone number of the company fax* - The fax number of the company old_company (<i>since version 4.3</i>) - An object representing the previous state of the company id - The ID of the company name - The name of the company hostname - The hostname of the company address - The address of the company phone - The phone number of the company fax - The fax number of the company	void	4.1
Companie s. deleteBefore	A company is removed	\Blesta\Core\Util\Events\Observers\Companies::deleteBefore() Deprecate d: \Blesta\Core\Util\Events\Observers\Companies::delete() - Events\CompaniesCallback::delete()	company_id - The ID of the company that was removed.	void	5.3

Companies.deleteAfter	A company is removed	\Blesta\Core\Utils\Events\Observers\Companies::deleteAfter() Deprecated: \Blesta\Core\Utils\Events\Observers\Companies::delete() - EventsCompaniesCallback::delete()	company_id - The ID of the company that was removed. old_company (since version 4.3) - An object representing the previous state of the company id - The ID of the company name - The name of the company hostname - The hostname of the company address - The address of the company phone - The phone number of the company fax - The fax number of the company	void	4.1
Contacts.addBefore	A contact is added	\Blesta\Core\Utils\Events\Observers\Contacts::addBefore()	vars - An array of input data which may include: client_id - The client ID this contact will be associated with user_id* - The user ID this contact belongs to if this contact has their own unique user record contact_type* - The type of contact contact_type_id* - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title* - The business title for this contact company* - The company/organization this contact belongs to email - This contact's email address address1* - This contact's address address2* - This contact's address line two city* - This contact's city state* - The 3-character ISO 3166-2 subdivision code, requires country zip* - The zip/postal code for this contact country* - The 2-character ISO 3166-1 country code, required if state is given numbers* An array of phone number data	array Key/value pairs to be set as variables in the Contacts::add() method. Special keys include: vars - An array of input data which may include: client_id - The client ID this contact will be associated with user_id* - The user ID this contact belongs to if this contact has their own unique user record contact_type* - The type of contact contact_type_id* - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title* - The business title for this contact company* - The company/organization this contact belongs to email - This contact's email address address1* - This contact's address address2* - This contact's address line two city* - This contact's city state* - The 3-character ISO 3166-2 subdivision code, requires country zip* - The zip/postal code for this contact country* - The 2-character ISO 3166-1 country code, required if state is given numbers* An array of phone number data	5.3
Contacts.addAfter	A contact is added	\Blesta\Core\Utils\Events\Observers\Contacts::addAfter() Deprecated: \Blesta\Core\Utils\Events\Observers\Contacts::add() - EventsContactsCallback::add()	contact_id - The ID of the contact that was created. vars - An array of input data which may include: client_id - The client ID this contact will be associated with user_id* - The user ID this contact belongs to if this contact has their own unique user record contact_type* - The type of contact contact_type_id* - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title* - The business title for this contact company* - The company/organization this contact belongs to email - This contact's email address address1* - This contact's address address2* - This contact's address line two city* - This contact's city state* - The 3-character ISO 3166-2 subdivision code, requires country zip* - The zip/postal code for this contact country* - The 2-character ISO 3166-1 country code, required if state is given numbers* An array of phone number data	void	4.1
Contacts.editBefore	A contact is updated	\Blesta\Core\Utils\Events\Observers\Contacts::editBefore()	contact_id - The ID of the contact that was updated. vars - An array of input data which may include: user_id* - The user ID this contact belongs to if this contact has their own unique user record contact_type* - The type of contact contact_type_id* - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title* - The business title for this contact company* - The company/organization this contact belongs to email - This contact's email address address1* - This contact's address address2* - This contact's address line two city* - This contact's city state* - The 3-character ISO 3166-2 subdivision code, requires country zip* - The zip/postal code for this contact country* - The 2-character ISO 3166-1 country code, required if state is given numbers* An array of phone number data	array Key/value pairs to be set as variables in the Contacts::edit() method. Special keys include: vars - An array of input data which may include: user_id* - The user ID this contact belongs to if this contact has their own unique user record contact_type* - The type of contact contact_type_id* - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title* - The business title for this contact company* - The company/organization this contact belongs to email - This contact's email address address1* - This contact's address address2* - This contact's address line two city* - This contact's city state* - The 3-character ISO 3166-2 subdivision code, requires country zip* - The zip/postal code for this contact country* - The 2-character ISO 3166-1 country code, required if state is given numbers* An array of phone number data	5.3

Contacts. editAfter	A contact is updated	\Blesta\Core\Util\Events\Observers\Contacts::editAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Contacts::edit() - EventsContacts::edit()	contact_id - The ID of the contact that was updated. vars - An array of input data which may include: user_id* - The user ID this contact belongs to if this contact has their own unique user record contact_type* - The type of contact contact_type_id* - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title* - The business title for this contact company* - The company/organization this contact belongs to email - This contact's email address address1* - This contact's address address2* - This contact's address line two city* - This contact's city state* - The 3-character ISO 3166-2 subdivision code, requires country zip* - The zip/postal code for this contact country* - The 2-character ISO 3166-1 country code, required if state is given numbers* - An array of phone number data old_contact (<i>since version 4.3</i>) - An object representing the previous state of the contact user_id - The user ID this contact belongs to if this contact has their own unique user record contact_type - The type of contact contact_type_name - The name or the language identifier of the contact type contact_type_is_lang - Whether the contact type name is a language identifier contact_type_id - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title - The business title for this contact company - The company/organization this contact belongs to email - This contact's email address address1 - This contact's address address2 - This contact's address line two city - This contact's city state - The 3-character ISO 3166-2 subdivision code, requires country zip - The zip/postal code for this contact country - The 2-character ISO 3166-1 country code, required if state is given date_added - The timestamp in UTC that the contact was added	void	4.1
Contacts. deleteBefore	A contact is removed	\Blesta\Core\Util\Events\Observers\Contacts::deleteBefore() Deprecated: \Blesta\Core\Util\Events\Observers\Contacts::delete() - EventsContacts::delete()	contact_id - The ID of the contact that was removed.	void	5.3
Contacts. deleteAfter	A contact is removed	\Blesta\Core\Util\Events\Observers\Contacts::deleteAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Contacts::delete() - EventsContacts::delete()	contact_id - The ID of the contact that was removed. old_contact (<i>since version 4.3</i>) - An object representing the previous state of the contact user_id - The user ID this contact belongs to if this contact has their own unique user record contact_type - The type of contact contact_type_name - The name or the language identifier of the contact type contact_type_is_lang - Whether the contact type name is a language identifier contact_type_id - The ID of the contact type if contact_type is 'other' first_name - The first name of this contact last_name - The last name of this contact title - The business title for this contact company - The company/organization this contact belongs to email - This contact's email address address1 - This contact's address address2 - This contact's address line two city - This contact's city state - The 3-character ISO 3166-2 subdivision code, requires country zip - The zip/postal code for this contact country - The 2-character ISO 3166-1 country code, required if state is given date_added - The timestamp in UTC that the contact was added	void	4.1
Emails. send	An email template is sent	\Blesta\Core\Util\Events\Observers\Emails::send() Deprecated: EventsEmails::send() EventsEmails::sendCustom()	action - The action that specifies the email group being sent options - An array of options passed to Emails::send(), which may include: to_client_id - The ID of the client the message was sent to from_staff_id - The ID of the staff member the message was sent from from - The from address override from_name - The from name override reply_to - The reply to address override tags - A key/value pair of replacement tags for the email.	array Key/value pairs to merge with tags.	3.1
Emails. sendCustom	A non-template based email is sent	\Blesta\Core\Util\Events\Observers\Emails::sendCustom() Deprecated: EventsEmails::sendCustom()	options - An array of options passed to Emails::send(), which may include: to_client_id - The ID of the client the message was sent to from_staff_id - The ID of the staff member the message was sent from reply_to - The reply to address override tags - A key/value pair of replacement tags for the email.	array Key/value pairs to merge with tags.	3.1

EmailVerifications.addBefore	An email verification is added	\Blesta\Core\Util\Events\Observers\EmailVerifications::addBefore()	vars - An array of verification data including: contact_id - The ID of the contact to verify email - The email address to verify token - The email verification token verified - Whether or not the email it's verified redirect_url - The url to redirect after a successfully verification	void	
EmailVerifications.addAfter	An email verification is added	\Blesta\Core\Util\Events\Observers\EmailVerifications::addAfter()	verification_id - The ID of the added email verification vars - An array of verification data including: contact_id - The ID of the contact to verify email - The email address to verify token - The email verification token verified - Whether or not the email it's verified redirect_url - The url to redirect after a successfully verification	void	5.5
EmailVerifications.editBefore	An email verification is updated	\Blesta\Core\Util\Events\Observers\EmailVerifications::editBefore()	verification_id - The ID of the email verification to update vars - An array of verification data including: contact_id - The ID of the contact to verify email - The email address to verify token - The email verification token verified - Whether or not the email it's verified redirect_url - The url to redirect after a successfully verification	void	5.5
EmailVerifications.editAfter	An email verification is updated	\Blesta\Core\Util\Events\Observers\EmailVerifications::editAfter()	verification_id - The ID of the updated email verification vars - An array of verification data including: contact_id - The ID of the contact to verify email - The email address to verify token - The email verification token verified - Whether or not the email it's verified redirect_url - The url to redirect after a successfully verification	void	5.5
EmailVerifications.deleteBefore	An email verification is deleted	\Blesta\Core\Util\Events\Observers\EmailVerifications::deleteBefore()	verification_id - The ID of the email verification to delete	void	5.5
EmailVerifications.deleteAfter	An email verification is deleted	\Blesta\Core\Util\Events\Observers\EmailVerifications::deleteAfter()	verification_id - The ID of the deleted email verification	void	5.5
EmailVerifications.verifyBefore	An email verification is verified	\Blesta\Core\Util\Events\Observers\EmailVerifications::verifyBefore()	verification_id - The ID of the email verification to verify	void	5.5
EmailVerifications.verifyAfter	An email verification is verified	\Blesta\Core\Util\Events\Observers\EmailVerifications::verifyAfter()	verification_id - The ID of the verified email verification	void	5.5
GatewayManager.addBefore	A gateway is added	\Blesta\Core\Util\Events\Observers\GatewayManager::addBefore()	vars - An array of input data which may include: company_id - The ID of the company the gateway belongs to class - The class name for this gateway type - The type of gateway	array Key/value pairs to be set as variables in the GatewayManager::add() method. Special keys include: vars - An array of input data which may include: company_id - The ID of the company the gateway belongs to class - The class name for this gateway type - The type of gateway	5.3
GatewayManager.addAfter Deprecated: GatewayManager.add	A gateway is added	\Blesta\Core\Util\Events\Observers\GatewayManager::addAfter() Deprecated: \Blesta\Core\Util\Events\Observers\GatewayManager::add() - Events\GatewayManagerCallback::add()	gateway_id - The ID of the gateway that was added. vars - An array of input data which may include: company_id - The ID of the company the gateway belongs to class - The class name for this gateway type - The type of gateway	void	4.1
GatewayManager.editBefore	A gateway is updated	\Blesta\Core\Util\Events\Observers\GatewayManager::editBefore()	gateway_id - The ID of the gateway that was updated. vars - An array of input data which may include: name - The name of the gateway class - The class name for this gateway type - The type of gateway currencies - A numerically indexed array of accepted currencies codes (ISO 4217) meta - A key/value array of meta data	array Key/value pairs to be set as variables in the GatewayManager::edit() method. Special keys include: vars - An array of input data which may include: name - The name of the gateway class - The class name for this gateway type - The type of gateway currencies - A numerically indexed array of accepted currencies codes (ISO 4217) meta - A key/value array of meta data	5.3

GatewayManager.editAfter Deprecated: GatewayManager.edit	A gateway is updated	\Blesta\Core\Utilities\Events\Observers\GatewayManager::editAfter() Deprecated: \Blesta\Core\Utilities\Events\Observers\GatewayManager::edit() - EventsGatewayManagerCallback::edit()	gateway_id - The ID of the gateway that was updated. vars - An array of input data which may include: name - The name of the gateway class - The class name for this gateway type - The type of gateway currencies - A numerically indexed array of accepted currencies codes (ISO 4217) meta - A key/value array of meta data old_gateway (since version 4.3) - An object representing the previous state of the gateway id - The ID of the gateway company_id - The ID of the company this gateway is installed for name - The name of the gateway class - The class name for this gateway version - The version of the gateway type - The type of gateway meta - A list of meta data for the gateway currencies - A list of objects representing currencies supported by this gateway	void	4.1
GatewayManager.deleteBefore	A gateway is removed	\Blesta\Core\Utilities\Events\Observers\GatewayManager::deleteBefore() Deprecated: \Blesta\Core\Utilities\Events\Observers\GatewayManager::delete() - EventsGatewayManagerCallback::delete()	gateway_id - The ID of the gateway that was removed.	void	5.3
GatewayManager.deleteAfter Deprecated: GatewayManager.delete	A gateway is removed	\Blesta\Core\Utilities\Events\Observers\GatewayManager::deleteAfter() Deprecated: \Blesta\Core\Utilities\Events\Observers\GatewayManager::delete() - EventsGatewayManagerCallback::delete()	gateway_id - The ID of the gateway that was removed. old_gateway (since version 4.3) - An object representing the previous state of the gateway id - The ID of the gateway company_id - The ID of the company this gateway is installed for name - The name of the gateway class - The class name for this gateway version - The version of the gateway type - The type of gateway meta - A list of meta data for the gateway currencies - A list of objects representing currencies supported by this gateway	void	4.1
Invoices.addBefore	An invoice is created	\Blesta\Core\Utilities\Events\Observers\Invoices::addBefore() Deprecated: \Blesta\Core\Utilities\Events\Observers\Invoices::add() - EventsInvoicesCallback::add()	vars - An array of input data which may include: client_id - The client ID the invoice belongs to date_billed - The date the invoice goes into effect date_due - The date the invoice is due date_closed - The date the invoice was closed date_autodebit - The date the invoice should be autodebited status - 'active','draft','proforma', or 'void' currency - The ISO 4217 3-character currency code of the invoice note_public - Notes visible to the client note_private - Notes visible only to staff members lines - A numerically indexed array of line item info including: term - The term for the recurring invoice as an integer 1-65535, if blank will not be considered for a recurring invoice period - The period for the recurring invoice ('day', 'week', 'month', 'year') duration - The duration of the recurring invoice ('indefinitely' for forever or 'times' for a set number of times) duration_time - The number of times an invoice should recur recur_date_billed - The date the next invoice will be created delivery - A numerically indexed array of delivery methods	array Key/value pairs to be set as variables in the Invoices::add() method. Special keys include: vars - An array of input data which may include: client_id - The client ID the invoice belongs to date_billed - The date the invoice goes into effect date_due - The date the invoice is due date_closed - The date the invoice was closed date_autodebit - The date the invoice should be autodebited status - 'active','draft','proforma', or 'void' currency - The ISO 4217 3-character currency code of the invoice note_public - Notes visible to the client note_private - Notes visible only to staff members lines - A numerically indexed array of line item info including: term - The term for the recurring invoice as an integer 1-65535, if blank will not be considered for a recurring invoice period - The period for the recurring invoice ('day', 'week', 'month', 'year') duration - The duration of the recurring invoice ('indefinitely' for forever or 'times' for a set number of times) duration_time - The number of times an invoice should recur recur_date_billed - The date the next invoice will be created delivery - A numerically indexed array of delivery methods	5.3
Invoices.addAfter Deprecated: Invoices.add	An invoice is created	\Blesta\Core\Utilities\Events\Observers\Invoices::addAfter() Deprecated: \Blesta\Core\Utilities\Events\Observers\Invoices::add() - EventsInvoicesCallback::add()	invoice_id - The ID of the invoice created	void	3.1

Invoices. editBefore	An invoice is updated	\Blesta\Core\Util\Events\Observers\Invoices::editBefore()	invoice_id - The ID of the invoice updated vars - An array of input data which may include: client_id - The client ID the invoice belongs to date_billed - The date the invoice goes into effect date_due - The date the invoice is due date_closed - The date the invoice was closed date_autodebit - The date the invoice should be autodebited status - 'active','draft','proforma', or 'void' currency - The ISO 4217 3-character currency code of the invoice note_public - Notes visible to the client note_private - Notes visible only to staff members lines - A numerically indexed array of line item info including: term - The term for the recurring invoice as an integer 1-65535, if blank will not be considered for a recurring invoice period - The period for the recurring invoice ('day', 'week', 'month', 'year') duration - The duration of the recurring invoice ('indefinitely' for forever or 'times' for a set number of times) duration_time - The number of times an invoice should recur recur_date_billed - The date the next invoice will be created delivery - A numerically indexed array of delivery methods	array Key/value pairs to be set as variables in the Invoices::edit() method. Special keys include: vars - An array of input data which may include: client_id - The client ID the invoice belongs to date_billed - The date the invoice goes into effect date_due - The date the invoice is due date_closed - The date the invoice was closed date_autodebit - The date the invoice should be autodebited status - 'active','draft','proforma', or 'void' currency - The ISO 4217 3-character currency code of the invoice note_public - Notes visible to the client note_private - Notes visible only to staff members lines - A numerically indexed array of line item info including: term - The term for the recurring invoice as an integer 1-65535, if blank will not be considered for a recurring invoice period - The period for the recurring invoice ('day', 'week', 'month', 'year') duration - The duration of the recurring invoice ('indefinitely' for forever or 'times' for a set number of times) duration_time - The number of times an invoice should recur recur_date_billed - The date the next invoice will be created delivery - A numerically indexed array of delivery methods	5.3
Invoices. editAfter Deprecate d: Invoices .edit	An invoice is updated	\Blesta\Core\Util\Events\Observers\Invoices::editAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Invoices::edit() - Events\Invoices\Callbacks::edit()	invoice_id - The ID of the invoice updated old_invoice (<i>since version 4.3</i>) - An object representing the previous state of the invoice id - The ID of the invoice id_format - The format that the ID value should be displayed in id_value - The ID for display client_id - The client ID the invoice belongs to date_billed - The date the invoice goes into effect date_due - The date the invoice is due date_closed - The date the invoice was closed date_autodebit - The date the invoice should be autodebited autodebit - Whether the invoice can be autodebited status - The status of the invoice ('active','draft','proforma', or 'void') subtotal - The subtotal of the invoice total - The total of the invoice paid - The amount the user has already paid on this invoice previous_due - The amount that was due on this invoice before the last time it was edited currency - The ISO 4217 3-character currency code of the invoice note_public - Notes visible to the client note_private - Notes visible only to staff members line_items - A list of invoice line items delivery - The delivery type for this invoice meta - A list of meta data for this invoice tax_subtotal - The total of inclusive taxes on this invoice tax_total - The total of all taxes on this invoice taxes - The taxes applied to this invoice	void	3.1
Invoices. setClosed Before	An invoice is closed	\Blesta\Core\Util\Events\Observers\Invoices::setClosedBefore()	invoice_id - The ID of the invoice closed	void	5.3
Invoices. setClosed After Deprecate d: Invoices .setClosed	An invoice is closed	\Blesta\Core\Util\Events\Observers\Invoices::setClosedAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Invoices::setClosed() - Events\Invoices\Callbacks::setClosed()	invoice_id - The ID of the invoice closed old_invoice (<i>since version 4.3</i>) - An object representing the previous state of the invoice id - The ID of the invoice id_format - The format that the ID value should be displayed in id_value - The ID for display client_id - The client ID the invoice belongs to date_billed - The date the invoice goes into effect date_due - The date the invoice is due date_closed - The date the invoice was closed date_autodebit - The date the invoice should be autodebited autodebit - Whether the invoice can be autodebited status - The status of the invoice ('active','draft','proforma', or 'void') subtotal - The subtotal of the invoice total - The total of the invoice paid - The amount the user has already paid on this invoice previous_due - The amount that was due on this invoice before the last time it was edited currency - The ISO 4217 3-character currency code of the invoice note_public - Notes visible to the client note_private - Notes visible only to staff members line_items - A list of invoice line items delivery - The delivery type for this invoice meta - A list of meta data for this invoice tax_subtotal - The total of inclusive taxes on this invoice tax_total - The total of all taxes on this invoice taxes - The taxes applied to this invoice	void	3.1
ModuleMa nager. addBefore	A module is installed	\Blesta\Core\Util\Events\Observers\ModuleManager::addBefore()	vars - An array of input data which may include: company_id - The ID of the company the module belongs to class - The class name for this module	array Key/value pairs to be set as variables in the ModuleManager::add() method. Special keys include: vars - An array of input data which may include: company_id - The ID of the company the module belongs to class - The class name for this module	5.3

ModuleManager.addAfter	A module is installed	\Blesta\Core\Util\Events\Observers\ModuleManager::addAfter() Deprecated: \Blesta\Core\Util\Events\Observers\ModuleManager::add() - Events\ModuleManagerCallback::add()	module_id - The ID of the module that was added. vars - An array of input data which may include: company_id - The ID of the company the module belongs to class - The class name for this module	void	4.1
ModuleManager.deleteBefore	A module is uninstalled	\Blesta\Core\Util\Events\Observers\ModuleManager::deleteBefore() 	module_id - The ID of the module that was removed.	void	5.3
ModuleManager.deleteAfter	A module is uninstalled	\Blesta\Core\Util\Events\Observers\ModuleManager::deleteAfter() Deprecated: \Blesta\Core\Util\Events\Observers\ModuleManager::delete() - Events\ModuleManagerCallback::delete()	module_id - The ID of the module that was removed. old_module (<i>since version 4.3</i>) - An object representing the previous state of the module id - The ID of the module company_id - Company ID to which this module is attached name - The name of the module class - The class name for this module version - The current version of this module meta - The meta data associated with this module rows - The rows belonging to this module groups - The module row groups	void	4.1
Navigation::getSearchOptions	Staff search options are displayed	\Blesta\Core\Util\Events\Observers\Navigation::getSearchOptions() Deprecated: Events\NavigationCallback::getSearchOptions()	options - A key/value pair of search options where each key is the URI to redirect search queries to and the value is the name of the search option. When implemented, the event handler should modify the options parameter using EventObject::setParams(). base_uri - The base URI for the currently logged in user.	void	3.0
Packages.addBefore	A package is created	\Blesta\Core\Util\Events\Observers\Packages::addBefore() 	vars - An array of input data which may include: module_id - The ID of the module this package belongs to name - The name of the package description - The description of the package description_html - The HTML description of the package qty - The maximum quantity available in this package, if any module_row - The module row this package belongs to module_group - The module group this package belongs to taxable - Whether or not this package is taxable single_term - Whether or not services derived from this package should be canceled at the end of term status - The status of this package company_id - The ID of the company this package belongs to prorata_day - The prorated day of the month prorata_cutoff - The day of the month pro rata should cut off email_content - A numerically indexed array of email content pricing - A numerically indexed array of pricing info groups - A numerically indexed array of package group assignments option_groups - A numerically indexed array of package option group assignments (any other package field data passed to the module)	array Key/value pairs to be set as variables in the Packages::add() method. Special keys include: vars - An array of input data which may include: module_id - The ID of the module this package belongs to name - The name of the package description - The description of the package description_html - The HTML description of the package qty - The maximum quantity available in this package, if any module_row - The module row this package belongs to module_group - The module group this package belongs to taxable - Whether or not this package is taxable single_term - Whether or not services derived from this package should be canceled at the end of term status - The status of this package company_id - The ID of the company this package belongs to prorata_day - The prorated day of the month prorata_cutoff - The day of the month pro rata should cut off email_content - A numerically indexed array of email content pricing - A numerically indexed array of pricing info groups - A numerically indexed array of package group assignments option_groups - A numerically indexed array of package option group assignments (any other package field data passed to the module)	5.3

Packages. deleteBefore	A package is removed	\Blesta\Core\Util\Events\Observers\Packages::deleteBefore() Deprecated: \Blesta\Core\Util\Events\Observers\Packages::delete() - Events\Packages\Callback::delete()	package_id - The ID of the package that was removed.	void	5.3
Packages. deleteAfter Deprecated: Packages.delete	A package is removed	\Blesta\Core\Util\Events\Observers\Packages::deleteAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Packages::delete() - Events\Packages\Callback::delete()	package_id - The ID of the package that was removed. old_package (<i>since version 4.3</i>) - An object representing the previous state of the package id - The ID of the package id_format - The format with which the ID value will be displayed id_value - The ID that will be displayed id_code - The formatted ID value module_id - The ID of the module this package belongs to name - The name of the package description - The description of the package description_html - The HTML description of the package qty - The maximum quantity available in this package, if any module_row - The module row this package belongs to module_group - The module group this package belongs to taxable - Whether or not this package is taxable single_term - Whether or not services derived from this package should be canceled at the end of term status - The status of this package company_id - The ID of the company this package belongs to prorate_day - The prorated day of the month prorate_cutoff - The day of the month pro rata should cut off email_content - A numerically indexed array of email content pricing - A numerically indexed array of pricing info meta - The meta data for this package groups - A numerically indexed array of package group assignments option_groups - A numerically indexed array of package option group assignments	void	4.1
Report. clientData	The Client Data Portability report is run	\Blesta\Core\Util\Events\Observers\Report::clientData() Deprecated: Events\Report\Callback::clientData()	client_id - The ID of the client for which this report is being generated	array A list of data to add to the report	4.3
Services. addBefore	A service is added	\Blesta\Core\Util\Events\Observers\Services::addBefore()	vars - An array of input data which may include: parent_service_id* - The ID of the service this service is a child of package_group_id* - The ID of the package group this service was added from pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row* - The module row to add the service under coupon_id* - The ID of the coupon used for this service qty* - The quantity consumed by this service override_price* - The price to set for this service, overriding the package pricing value for the selected term override_currency* - The currency to set for this service, overriding the package pricing value for the selected term status* - The status of this service date_added* - The date this service is added date_renews* - The date the service renews date_last_renewed* - The date the service last renewed date_suspended* - The date the service was last suspended date_canceled* - The date the service was last canceled use_module* - Whether or not to use the module for this request prorate - Whether or not to prorate price changes configoptions* - An array of key/value pairs of package options where the key is the package option ID and the value is the option value (any other service field data passed to the module) packages - An array of packages ordered along with this service to determine if the given coupon may be applied notify - True to notify the client by email regarding this service creation, false to not send any notification	array Key/value pairs to be set as variables in the Services::add() method. Special keys include: vars - An array of input data which may include: parent_service_id* - The ID of the service this service is a child of package_group_id* - The ID of the package group this service was added from pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row* - The module row to add the service under coupon_id* - The ID of the coupon used for this service qty* - The quantity consumed by this service override_price* - The price to set for this service, overriding the package pricing value for the selected term override_currency* - The currency to set for this service, overriding the package pricing value for the selected term status* - The status of this service date_added* - The date this service is added date_renews* - The date the service renews date_last_renewed* - The date the service last renewed date_suspended* - The date the service was last suspended date_canceled* - The date the service was last canceled use_module* - Whether or not to use the module for this request prorate - Whether or not to prorate price changes configoptions* - An array of key/value pairs of package options where the key is the package option ID and the value is the option value (any other service field data passed to the module) packages - An array of packages ordered along with this service to determine if the given coupon may be applied notify - True to notify the client by email regarding this service creation, false to not send any notification	5.3

Services. addAfter	A service is added	\Blesta\Core\Util\Events\Observers\Services::addAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Services::add() - EventsServices::callback::add()	service_id - The ID of the service added vars - An array of input data which may include: parent_service_id* - The ID of the service this service is a child of package_group_id* - The ID of the package group this service was added from pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row* - The module row to add the service under coupon_id* - The ID of the coupon used for this service qty* - The quantity consumed by this service override_price* - The price to set for this service, overriding the package pricing value for the selected term override_currency* - The currency to set for this service, overriding the package pricing value for the selected term status* - The status of this service date_added* - The date this service is added date_renews* - The date the service renews date_last_renewed* - The date the service last renewed date_suspended* - The date the service was last suspended date_canceled* - The date the service was last canceled use_module* - Whether or not to use the module for this request prorate - Whether or not to prorate price changes configoptions* - An array of key/value pairs of package options where the key is the package option ID and the value is the option value (any other service field data passed to the module)	void	3.4
Services. editBefore	A service is edited	\Blesta\Core\Util\Events\Observers\Services::editBefore() 	service_id - The ID of the service edited vars - An array of input data which may include: parent_service_id* - The ID of the service this service is a child of package_group_id* - The ID of the package group this service was added from pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row* - The module row to add the service under coupon_id* - The ID of the coupon used for this service qty* - The quantity consumed by this service override_price* - The price to set for this service, overriding the package pricing value for the selected term override_currency* - The currency to set for this service, overriding the package pricing value for the selected term status* - The status of this service date_added* - The date this service is added date_renews* - The date the service renews date_last_renewed* - The date the service last renewed date_suspended* - The date the service was last suspended date_canceled* - The date the service was last canceled use_module* - Whether or not to use the module for this request prorate - Whether or not to prorate price changes configoptions* - An array of key/value pairs of package options where the key is the package option ID and the value is the option value (any other service field data passed to the module) bypass_module - \$vars['use_module'] notifies the module of whether or not it should internally use its module connection to process the request, however in some instances it may be necessary to prevent the module from being notified of the request altogether. If true, this will prevent the module from being notified of the request. notify - True to notify the client by email regarding this service creation, false to not send any notification	array Key/value pairs to be set as variables in the Services::edit() method. Special keys include: vars - An array of input data which may include: parent_service_id* - The ID of the service this service is a child of package_group_id* - The ID of the package group this service was added from pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row* - The module row to add the service under coupon_id* - The ID of the coupon used for this service qty* - The quantity consumed by this service override_price* - The price to set for this service, overriding the package pricing value for the selected term override_currency* - The currency to set for this service, overriding the package pricing value for the selected term status* - The status of this service date_added* - The date this service is added date_renews* - The date the service renews date_last_renewed* - The date the service last renewed date_suspended* - The date the service was last suspended date_canceled* - The date the service was last canceled use_module* - Whether or not to use the module for this request prorate - Whether or not to prorate price changes configoptions* - An array of key/value pairs of package options where the key is the package option ID and the value is the option value (any other service field data passed to the module) bypass_module - \$vars['use_module'] notifies the module of whether or not it should internally use its module connection to process the request, however in some instances it may be necessary to prevent the module from being notified of the request altogether. If true, this will prevent the module from being notified of the request. notify - True to notify the client by email regarding this service creation, false to not send any notification	5.3

Services. editAfter	A service is edited	\Blesta\Core\Util\Events\Observers\Services::editAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Services::edit() - EventsServices::Callback::edit()	service_id - The ID of the service edited vars - An array of input data which may include: parent_service_id* - The ID of the service this service is a child of package_group_id* - The ID of the package group this service was added from pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row* - The module row to add the service under coupon_id* - The ID of the coupon used for this service qty* - The quantity consumed by this service override_price* - The price to set for this service, overriding the package pricing value for the selected term override_currency* - The currency to set for this service, overriding the package pricing value for the selected term status* - The status of this service date_added* - The date this service is added date_renews* - The date the service renews date_last_renewed* - The date the service last renewed date_suspended* - The date the service was last suspended date_canceled* - The date the service was last canceled use_module* - Whether or not to use the module for this request prorate - Whether or not to prorate price changes configoptions* - An array of key/value pairs of package options where the key is the package option ID and the value is the option value (any other service field data passed to the module) old_service (since version 4.3) - An object representing the previous state of the service id - The ID of the service parent_service_id - The ID of the service this service is a child of package_group_id - The ID of the package group this service was added from id_format - The format with which the ID value will be displayed id_value - The ID that will be displayed id_code - The formatted ID value pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row_id - The ID of the module row this service was assigned to coupon_id - The ID of the coupon used for this service qty - The quantity consumed by this service override_price - The price to set for this service, overriding the package pricing value for the selected term override_currency - The currency to set for this service, overriding the package pricing value for the selected term status - The status of this service suspension_reason - The reason given (if any) for the last time this service was suspended date_added - The date this service is added date_renews - The date the service renews date_last_renewed - The date the service last renewed date_suspended - The date the service was last suspended date_canceled - The date the service was last canceled fields - A list of service fields package_pricing - An object representing the pricing scheme applied to this service package - An object representing the package this service was created from options - A list of service options name - The name of the service which is derived either from the package or the module this service belongs to	void	3.4
Services. cancelBefore	A service is scheduled to be canceled, or is canceled	\Blesta\Core\Util\Events\Observers\Services::cancelBefore() 	service_id - The ID of the service canceled vars - An array of input data which may include: date_canceled - The date this service is scheduled to be canceled status - The status of the service (i.e. 'canceled') use_module - Whether or not to use the module for this request	array Key/value pairs to be set as variables in the Services::cancel() method. Special keys include: vars - An array of input data which may include: date_canceled - The date this service is scheduled to be canceled status - The status of the service (i.e. 'canceled') use_module - Whether or not to use the module for this request	5.3

Services. cancelAfter	A service is scheduled to be canceled, or is canceled	\Blesta\Core\Util\Events\Observers\Service::cancelAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Service::cancel() - Events\Services\Callback::cancel()	service_id - The ID of the service canceled vars - An array of input data which may include: date_canceled - The date this service is scheduled to be canceled status - The status of the service (i.e. 'canceled') use_module - Whether or not to use the module for this request old_service (since version 4.3) - An object representing the previous state of the service id - The ID of the service parent_service_id - The ID of the service this service is a child of package_group_id - The ID of the package group this service was added from id_format - The format with which the ID value will be displayed id_value - The ID that will be displayed id_code - The formatted ID value pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row_id - The ID of the module row this service was assigned to coupon_id - The ID of the coupon used for this service qty - The quantity consumed by this service override_price - The price to set for this service, overriding the package pricing value for the selected term override_currency - The currency to set for this service, overriding the package pricing value for the selected term status - The status of this service suspension_reason - The reason given (if any) for the last time this service was suspended date_added - The date this service is added date_renews - The date the service renews date_last_renewed - The date the service last renewed date_suspended - The date the service was last suspended date_canceled - The date the service was last canceled fields - A list of service fields package_pricing - An object representing the pricing scheme applied to this service package - An object representing the package this service was created from options - A list of service options name - The name of the service which is derived either from the package or the module this service belongs to	void	3.5
Services. suspendBefore	A service is suspended before	\Blesta\Core\Util\Events\Observers\Service::suspendBefore() Deprecated: \Blesta\Core\Util\Events\Observers\Service::suspend() - Events\Services\Callback::suspend()	service_id - The ID of the service suspended vars - An array of input data which may include: date_suspended - The date the service was suspended status - The status of the service (i.e. 'suspended') use_module - Whether or not to use the module for this request staff_id - The ID of the staff member that issued the service suspension	array Key/value pairs to be set as variables in the Services::suspend() method. Special keys include: vars - An array of input data which may include: date_suspended - The date the service was suspended status - The status of the service (i.e. 'suspended') use_module - Whether or not to use the module for this request staff_id - The ID of the staff member that issued the service suspension	5.3
Services. suspendAfter	A service is suspended after	\Blesta\Core\Util\Events\Observers\Service::suspendAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Service::suspend() - Events\Services\Callback::suspend()	service_id - The ID of the service suspended vars - An array of input data which may include: date_suspended - The date the service was suspended status - The status of the service (i.e. 'suspended') use_module - Whether or not to use the module for this request staff_id - The ID of the staff member that issued the service suspension old_service (since version 4.3) - An object representing the previous state of the service id - The ID of the service parent_service_id - The ID of the service this service is a child of package_group_id - The ID of the package group this service was added from id_format - The format with which the ID value will be displayed id_value - The ID that will be displayed id_code - The formatted ID value pricing_id - The package pricing schedule ID for this service client_id - The ID of the client this service belongs to module_row_id - The ID of the module row this service was assigned to coupon_id - The ID of the coupon used for this service qty - The quantity consumed by this service override_price - The price to set for this service, overriding the package pricing value for the selected term override_currency - The currency to set for this service, overriding the package pricing value for the selected term status - The status of this service suspension_reason - The reason given (if any) for the last time this service was suspended date_added - The date this service is added date_renews - The date the service renews date_last_renewed - The date the service last renewed date_suspended - The date the service was last suspended date_canceled - The date the service was last canceled fields - A list of service fields package_pricing - An object representing the pricing scheme applied to this service package - An object representing the package this service was created from options - A list of service options name - The name of the service which is derived either from the package or the module this service belongs to	void	3.5

Services. unsuspendBefore	A service is unsuspended	\\Blesta\\Core\\Util\\Events\\Observers\\Services::unsuspendBefore()	• service_id - The ID of the service unsuspended • vars - An array of input data which may include: ◦ date_suspended - The date the service was suspended (i.e. null) ◦ status - The status of the service (i.e. 'active') ◦ use_module - Whether or not to use the module for this request ◦ staff_id - The ID of the staff member that issued the service unsuspension	array Key/value pairs to be set as variables in the Services::unsuspend() method. Special keys include: • vars - An array of input data which may include: ◦ date_suspended - The date the service was suspended (i.e. null) ◦ status - The status of the service (i.e. 'active') ◦ use_module - Whether or not to use the module for this request ◦ staff_id - The ID of the staff member that issued the service unsuspension	5.3
Services. unsuspendAfter Deprecated: Service. unsuspend	A service is unsuspended	\\Blesta\\Core\\Util\\Events\\Observers\\Services::unsuspendAfter() Deprecated: • \\Blesta\\Core\\Util\\Events\\Observers\\Services::unsuspend() • EventsServicesCallback::unsuspend()	• service_id - The ID of the service unsuspended • vars - An array of input data which may include: ◦ date_suspended - The date the service was suspended (i.e. null) ◦ status - The status of the service (i.e. 'active') ◦ use_module - Whether or not to use the module for this request ◦ staff_id - The ID of the staff member that issued the service unsuspension • old_service (since version 4.3) - An object representing the previous state of the service ◦ id - The ID of the service ◦ parent_service_id - The ID of the service this service is a child of ◦ package_group_id - The ID of the package group this service was added from ◦ id_format - The format with which the ID value will be displayed ◦ id_value - The ID that will be displayed ◦ id_code - The formatted ID value ◦ pricing_id - The package pricing schedule ID for this service ◦ client_id - The ID of the client this service belongs to ◦ module_row_id - The ID of the module row this service was assigned to ◦ coupon_id - The ID of the coupon used for this service ◦ qty - The quantity consumed by this service ◦ override_price - The price to set for this service, overriding the package pricing value for the selected term ◦ override_currency - The currency to set for this service, overriding the package pricing value for the selected term ◦ status - The status of this service ◦ suspension_reason - The reason given (if any) for the last time this service was suspended ◦ date_added - The date this service is added ◦ date_renews - The date the service renews ◦ date_last_renewed - The date the service last renewed ◦ date_suspended - The date the service was last suspended ◦ date_canceled - The date the service was last canceled ◦ fields - A list of service fields ◦ package_pricing - An object representing the pricing scheme applied to this service ◦ package - An object representing the package this service was created from ◦ options - A list of service options ◦ name - The name of the service which is derived either from the package or the module this service belongs to	void	3.5
Staff. addBefore	A staff is created	\\Blesta\\Core\\Util\\Events\\Observers\\Staff::addBefore()	• vars - An array of input data which may include: ◦ user_id - The user ID belonging to this staff member ◦ first_name - The first name of this staff member ◦ last_name - The last name of this staff member ◦ email - The email address of this staff member ◦ email_mobile - The mobile email address of this staff member ◦ status* - The status of this staff member ◦ groups - An array of staff group IDs this staff member belongs to	array Key/value pairs to be set as variables in the Staff::add() method. Special keys include: • vars - An array of input data which may include: ◦ user_id - The user ID belonging to this staff member ◦ first_name - The first name of this staff member ◦ last_name - The last name of this staff member ◦ email - The email address of this staff member ◦ email_mobile - The mobile email address of this staff member ◦ status* - The status of this staff member ◦ groups - An array of staff group IDs this staff member belongs to	5.3
Staff. addAfter Deprecated: Staff. add	A staff is created	\\Blesta\\Core\\Util\\Events\\Observers\\Staff::addAfter() Deprecated: • \\Blesta\\Core\\Util\\Events\\Observers\\Staff::add() • EventsStaffCallback::add()	• staff_id - The ID of the staff that was created. • vars - An array of input data which may include: ◦ user_id - The user ID belonging to this staff member ◦ first_name - The first name of this staff member ◦ last_name - The last name of this staff member ◦ email - The email address of this staff member ◦ email_mobile - The mobile email address of this staff member ◦ status* - The status of this staff member ◦ groups - An array of staff group IDs this staff member belongs to	void	4.1

Staff. editBefore	A staff is updated	\Blesta\Core\Util\Events\Observers\Staff::editBefore()	staff_id - The ID of the staff that was updated. vars - An array of input data which may include: user_id - The user ID belonging to this staff member first_name - The first name of this staff member last_name - The last name of this staff member email - The email address of this staff member email_mobile - The mobile email address of this staff member status* - The status of this staff member groups - An array of staff group IDs this staff member belongs to	array Key/value pairs to be set as variables in the Staff::edit() method. Special keys include: vars - An array of input data which may include: user_id - The user ID belonging to this staff member first_name - The first name of this staff member last_name - The last name of this staff member email - The email address of this staff member email_mobile - The mobile email address of this staff member status* - The status of this staff member groups - An array of staff group IDs this staff member belongs to	5.3
Staff. editAfter Deprecate d: Staff. edit	A staff is updated	\Blesta\Core\Util\Events\Observers\Staff::editAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Staff::edit() - EventsStaffCallback::edit()	staff_id - The ID of the staff that was updated. vars - An array of input data which may include: user_id - The user ID belonging to this staff member first_name - The first name of this staff member last_name - The last name of this staff member email - The email address of this staff member email_mobile - The mobile email address of this staff member status* - The status of this staff member groups - An array of staff group IDs this staff member belongs to old_staff (since version 4.3) - An object representing the previous state of the staff member id - The ID of this staff member user_id - The user ID belonging to this staff member first_name - The first name of this staff member last_name - The last name of this staff member email - The email address of this staff member email_mobile - The mobile email address of this staff member status - The status of this staff member username - The user name of this staff member two_factor_mode - Whether and how two factor authentication is being used for this staff member two_factor_pin - The two factor pin (if any) for this staff member two_factor_key - The two factor key (if any) for this staff member groups - An array of staff groups this staff member belongs to settings - A list of staff settings notices - A list of notices assigned to this staff member	void	4.1
Transac tions. addBefore	A transaction is created	\Blesta\Core\Util\Events\Observers\Transactions::addBefore()	vars - An array of input data which may include: id - The ID of this transaction client_id - The ID of the client this transaction was applied for amount - The amount this transaction was for currency - The currency of this transaction type - The transaction type (cc, ach, other) transaction_type_id - The transaction type ID (if any) account_id - The ID of the payment account (if any) associated with this transaction gateway_id - The ID of the gateway this transaction was made through gateway_name - The name of the gateway this transaction was made through gateway_type - The type of gateway this transaction was made through (merchant or non-merchant) reference_id - The external ID stored for reference to the gateway records transaction_id - The gateway supplied transaction ID parent_transaction_id - The gateway supplied parent transaction ID status - The status of this transaction date_added - The date this transaction was received	array Key/value pairs to be set as variables in the Transactions::add() method. Special keys include: vars - An array of input data which may include: id - The ID of this transaction client_id - The ID of the client this transaction was applied for amount - The amount this transaction was for currency - The currency of this transaction type - The transaction type (cc, ach, other) transaction_type_id - The transaction type ID (if any) account_id - The ID of the payment account (if any) associated with this transaction gateway_id - The ID of the gateway this transaction was made through gateway_name - The name of the gateway this transaction was made through gateway_type - The type of gateway this transaction was made through (merchant or non-merchant) reference_id - The external ID stored for reference to the gateway records transaction_id - The gateway supplied transaction ID parent_transaction_id - The gateway supplied parent transaction ID status - The status of this transaction date_added - The date this transaction was received	5.3
Transac tions. addAfter Deprecate d: Transac tions.add	A transaction is created	\Blesta\Core\Util\Events\Observers\Transactions::addAfter() Deprecated: \Blesta\Core\Util\Events\Observers\Transactions::add() - EventsTransactionsCallback::add()	transaction_id - The ID of the transaction created	void	3.1

Transactions. editBefore	A transaction is updated	\Blesta\Core\Util\Events\Observers\Transactions::editBefore() Deprecated: • \Blesta\Core\Util\Events\Observers\Transactions::edit() • Events\TransactionsCallBack::edit()	• transaction_id - The ID of the transaction updated • staff_id - The ID of the staff member that made the edit for logging purposes • vars - An array of input data which may include: ◦ id - The ID of this transaction ◦ client_id - The ID of the client this transaction was applied for ◦ amount - The amount this transaction was for ◦ currency - The currency of this transaction ◦ type - The transaction type (cc, ach, other) ◦ transaction_type_id - The transaction type ID (if any) ◦ account_id - The ID of the payment account (if any) associated with this transaction ◦ gateway_id - The ID of the gateway this transaction was made through ◦ gateway_name - The name of the gateway this transaction was made through ◦ gateway_type - The type of gateway this transaction was made through (merchant or non-merchant) ◦ reference_id - The external ID stored for reference to the gateway records ◦ transaction_id - The gateway supplied transaction ID ◦ parent_transaction_id - The gateway supplied parent transaction ID ◦ status - The status of this transaction ◦ date_added - The date this transaction was received	array Key/value pairs to be set as variables in the Transactions::edit() method. Special keys include: • vars - An array of input data which may include: ◦ id - The ID of this transaction ◦ client_id - The ID of the client this transaction was applied for ◦ amount - The amount this transaction was for ◦ currency - The currency of this transaction ◦ type - The transaction type (cc, ach, other) ◦ transaction_type_id - The transaction type ID (if any) ◦ account_id - The ID of the payment account (if any) associated with this transaction ◦ gateway_id - The ID of the gateway this transaction was made through ◦ gateway_name - The name of the gateway this transaction was made through ◦ gateway_type - The type of gateway this transaction was made through (merchant or non-merchant) ◦ reference_id - The external ID stored for reference to the gateway records ◦ transaction_id - The gateway supplied transaction ID ◦ parent_transaction_id - The gateway supplied parent transaction ID ◦ status - The status of this transaction ◦ date_added - The date this transaction was received	5.3
Transactions. editAfter Deprecate d: Transactions.edit	A transaction is updated	\Blesta\Core\Util\Events\Observers\Transactions::editAfter() Deprecated: • \Blesta\Core\Util\Events\Observers\Transactions::edit() • Events\TransactionsCallBack::edit()	• transaction_id - The ID of the transaction updated • old_transaction (since version 4.3) - An object representing the previous state of the transaction ◦ id - The ID of this transaction ◦ client_id - The ID of the client this transaction was applied for ◦ amount - The amount this transaction was for ◦ currency - The currency of this transaction ◦ type - The transaction type (cc, ach, other) ◦ transaction_type_id - The transaction type ID (if any) ◦ account_id - The ID of the payment account (if any) associated with this transaction ◦ gateway_id - The ID of the gateway this transaction was made through ◦ gateway_name - The name of the gateway this transaction was made through ◦ gateway_type - The type of gateway this transaction was made through (merchant or non-merchant) ◦ reference_id - The external ID stored for reference to the gateway records ◦ transaction_id - The gateway supplied transaction ID ◦ parent_transaction_id - The gateway supplied parent transaction ID ◦ status - The status of this transaction ◦ date_added - The date this transaction was received	void	3.1
Users. delete	A user is deleted	\Blesta\Core\Util\Events\Observers\Users::delete() Deprecated: Events\UsersCallback::delete()	• user_id - The ID of the user being deleted • old_user - An object representing the previous state of the user ◦ id - The ID of the user ◦ username - The username for this user ◦ two_factor_mode - The kind of two factor authentication being used by this user ◦ date_added - The date in UTC that this user was added	void	4.3
Users. login	A user logs in	\Blesta\Core\Util\Events\Observers\Users::login() Deprecated: Events\UsersCallback::login()	• user_id - The ID of the user that successfully logged in	void	3.1
Users. logout	A user logs out	\Blesta\Core\Util\Events\Observers\Users::logout() Deprecated: Events\UsersCallback::logout()	• user_id - The ID of the user attempting to log out	void	3.1

* This field may not be included in the data since it is an optional parameter to submit to the function that calls this event

Working with Events

Each event handler that is invoked when the event is triggered is passed a `\Blesta\Core\Util\Events\Common\EventInterface` (previously an `EventObject`). An `EventObject` will still be passed to plugins for backward compatibility, but this is deprecated behavior.

You can modify the parameters or return value of this event object and the modified event will be passed along to each subsequent handler, and finally returned to the trigger.

To fetch parameters from the `\Blesta\Core\Util\Events\Common\EventInterface`, or `EventObject`, invoke the `getParams()` method. Similarly, to set parameters use the `setParams()` method.

To set the return value from the `\Blesta\Core\Util\Events\Common\EventInterface`, or `EventObject`, invoke the [setRetVal\(\)](#) method. Similarly, to fetch the return value use the [getRetVal\(\)](#) method.