



envoimessagecenter

Functional Overview



Envoii Message System
Functional Overview 1.0

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Envoii Message Center Overview

The Envoii Message Center (EMC) is a web-based tool that allows organizations and individuals to send encrypted alerts and message to other users without any private data actually being “sent” to the recipient. The sender may designate part of the message private, which means it will remain encrypted on the server until the recipient logs in and authenticates. Only upon successful authentication may the recipient view the private text. The only text shown to the recipient without logging in is the portion of the message that is not private.

For example, a doctor may wish to notify a patient that his test results are in. Emailing the actual results or stating them on a phone message would be a violation of HIPAA guidelines, so the doctor uses the EMC application to send an alert to the patient. The private portion of the message contains the actual results and the title of the alert might state “your test results are ready to view”. When the patient receives the alert, he logs into the EMC website and views the actual results. Access to the system is logged, so the doctor knows exactly when the patient viewed the content he shared.

For convenience, the EMC allows users to choose from a variety of alert methods, including SMS (text), email, or the Envoii Alert Center (EAC), which is an extra application that runs in the background on a user’s computer and pops up notifications. Regardless of notification method, the recipient must log in and authenticate before viewing encrypted data.

Senders have the option to send alerts to individual users, groups of users, or even all users at once. Alerts may be scheduled to be sent on a recurring basis or at a time in the future.



EMC Server

The EMC server runs on a Windows platform. The EMC functionality is composed of three main functional pieces: a database (MySQL for small implementations and Oracle 11g for larger implementations), a Jakarta Struts backend and JavaServer Pages (JSP) frontend running on an Adobe Tomcat application server. Additionally there is an integrated SMTP mail server to provide the automated email and text (SMS) alerts.

The EMC server can operate as a standalone server; or by utilizing the EMC Alert API, the EMC server can interface with other external applications to process and generate alerts. The EMC server can function as the nerve center for an integrated alerting and notification system providing a one-stop management and acknowledgment facility with easy site customizable emails, text messages, and RSS feeds.

EMC Website

The Envii Message Center allows complete system access through a web browser. All communication with the Envii Message Center is conducted over encrypted SSL (Secure Socket Layer) tunnels ensuring security and privacy. No alerts, notifications, or any subscriber data is ever transferred by the Envii system unencrypted.

The Envii Message contains features that rely upon recent standards approved by the World Wide Web Consortium (W3C) and will not work as well with older web browsers. For this reason we recommend that you use a web browser from the list below.

Browser	Supported Version
Chrome	4.0 and higher
Internet Explorer	7.0 and higher
Firefox	3.0 and higher
Opera	10.0 and higher
Safari	4.0 and higher

The following functions are available using the EMC Website. Not all features will be available to all users. The following sections will detail each EMC function and which users may access it. Each functional area of the website is housed on separate page (tab).

- Send an alert
- Schedule an alert
- View received and sent alerts
- Modify account settings
- View logs of user activity
- Manage another user's account
- Manage invite tokens
- View usage statistics
- Create a new user
- Create an alert template
- Specify default message text
- Create an RSS feed

User Types

EMC functionality is tied to user types. There are three different user types associated with the EMC: the Super-User, the Administrator, and User. The following table details which functions each user type may access. Every EMC user has at least User level access. There may be many users with Administrator level access, but usually only a few users will have Super-User access. Super-User is intended to be used for system-level setup and not accessed on a regular basis.

Tab	User	Administrator	Super-User
Send	X	X	
Alerts	X	X	
Account	X	X	X
Logs	X	X	
Tokens		X	
Groups		X	
Templates			X
RSS			X

An EMC user with Super-User access will also have Administrator and User level access. An EMC user with Administrator level access will also have User level access. A user must login with the correct access level to use the features associated with it. For example, a user logged in as a Super-User must log back in as an Administrator to create a Token or Send an alert.

Tokens

A token correlates individual users (or groups of users) with specific system features for registration purposes. These system features include send and schedule permission and which EAC cube will be used. When an admin creates a new token, he or she will specify how many times that token may be used and optionally specify an expiration date for it.

Once created, the token can be used an admin may use that token to create an invitation for a new user. The potential user will receive an email containing a link back to the EMC website. The link includes the token string. When the user clicks the link, he or she will be directed to the registration page to register for the EMC service.

User Registration

In order to create an account, the user must have a valid invitation token. Invitations are usually received via an email with a link in it. The link contains the secure URL of the Envooi Message Center with the token string embedded in it. Clicking on this link will open a browser window with the Registration Page as shown below.

The screenshot shows a web browser window titled "janedoe EMC User Registration - Mozilla Firefox". The page header features the "envoii message center" logo and the "Secure eHealth LLC" logo. The main heading is "Welcome To The Envoii Message Center Registration Page". Below this, there is a welcome message and instructions for creating an account. The registration form includes fields for First Name, Last Name, Email Address, Username (with a note: "(6-12 alphanumeric characters)"), Password (with a note: "(8-12 characters long with at least 1 number)"), Password Strength, and Confirm Password. A "Register" button is located below the form. Below the form is a "TERMS OF USE" section with a scrollable text area containing legal disclaimers and a checkbox labeled "<-- I Have Read And Agree To The Terms Of Use Stated Above." with a "Register" button. At the bottom, there is a footer with the "Secure eHealth" logo, "Powered by Secure eHealth.", and navigation links: "Alert", "Account", "Logs", "Online Help", "Contact Us", "Legal Notice", and "Logout".

Once registered, the new user will have the features specified in the token and be directed to optionally download the associated EAC cube.




EMC Features

The following sections outline each of the EMC functions.

Send

The **Send** tab is used to create a new alert. All users with Administrator level access and those with User level access who have been granted send privileges may send an alert.

An alert will contain the following pieces of information:

Field	Requirements	Explanation
Priority	Default is Low	The recipient will see an icon flagging urgent messages  or medium priority messages  .
Title	Mandatory	This field will be displayed to the user without being logged in. No private data should be included here. Select
Template 	Optional	Instead of creating an alert from scratch, a user may choose from pre-created alerts, called templates. A user logged in as an Administrator will also have a Save button at the bottom of the page, which will allow him or her to fill in all fields and save the alert as a template.
Text	Optional	Used for explanatory text. It is also potentially displayed to the user without being logged in. No private data should be included here.
Private Message	Optional	The recipient must log in and authenticate before viewing this information.
URL	Optional	If the sender wishes to include a link to a URL, it should be input here.

Field	Requirements	Explanation
Schedules	Optional	This is only available to users with User level access if they have been granted the privilege. Use this tab to schedule recurring alerts or alerts in the future.
Delivery Options	Optional	A sender may choose to be notified if the recipient does not read the message in a pre-determined amount of time. The sender may also choose to automatically delete the alert at a certain time using this tab.

Alerts

This tab allows users to view the alerts they have sent and received. Users with User level access and Administrator level access may use this feature. If a User does not have Send privileges, he or she will only have a page for received alerts.

The screenshot shows the 'My Alerts' page in the Envoii Message Center. The user is logged in as 'janedoe'. The page displays a table of alerts with the following data:

<input checked="" type="checkbox"/>	Date ↓	Info ⓘ	Title ↓	Text ↓
<input type="checkbox"/>	Mon, 10 May 2010 15:54:13 CDT		Appointment Ca...	Your appointment scheduled for Wednesday, May 12
<input type="checkbox"/>	Mon, 10 May 2010 15:54:44 CDT		RE: Appointment	jballard has not read your message.
<input type="checkbox"/>	Mon, 10 May 2010 16:17:29 CDT	🔒	Test Results	

Navigation options include 'Refresh', 'Mark As Read', 'Mark As Unread', 'Delete', and 'Print'. The page also shows '3 Alerts(s)' and a 'View My Sent Messages' link. The footer contains the Secure eHealth logo and copyright information for 2010 Envoii Technologies, LLC.

The user may double-click on an alert to view the full content. Messages in bold have not yet been read. The Info column displays icons that give more information about the message. Users may delete and print their messages. Users may also filter alerts based on search criteria.

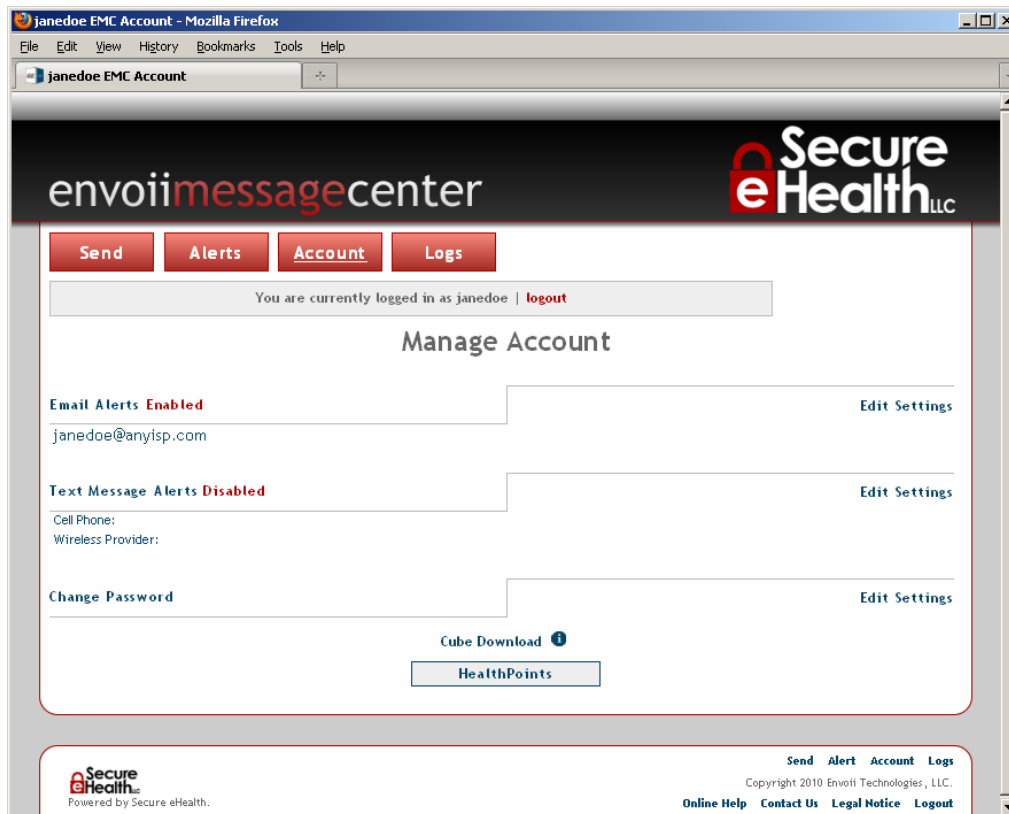
Users logged in as Administrator will be able to view all alerts for all users or choose a user or group of users to view alerts for.

Account

The Account tab functions will be different depending on whether the user is logged in with User level access or Administrator or Super-User level access.

User Level Access

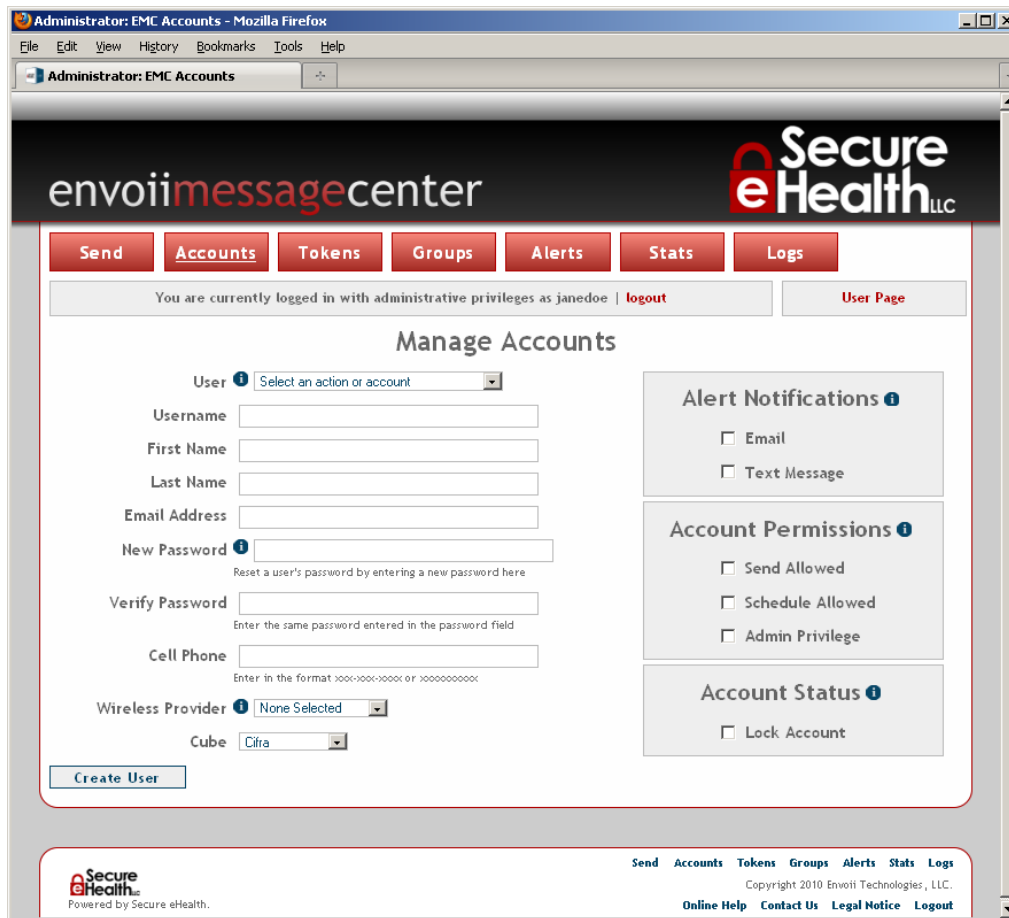
Users logged in with User level access may configure their accounts using the Account tab. Users may add up to three email address at which to receive alerts, add an SMS (Text) number at which to receive alerts, and change login passwords using this tab. Users may also download an EAC cube from this page.



Administrator or Super-User Level Access

Users logged in with Administrator or Super-User level access may administrate other user's accounts as well as their own. They may also grant Administrator level access to a user or remove that access. They may grant send and schedule privileges or remove those privileges. An Administrator may add a new user to the system and remove a user from the system. An administrator may lock another user's account, which will prevent that user from being able to log in or receive alerts.

Administrators may also choose whether a user receives notifications using SMS or Email and which cube will appear for the user to download.



Audit Logs

The **Logs** tab contains a table that displays every system event on the system. The table contains the date that the log was created, the user affected, the event that caused the creation of the log and the title of the message or event associated with that log. If the **Message** field is empty, a generic action has been logged like a user logging in and no specific message is associated with that action.

Administrators will see logs for all users, general Users will see log entries associated with their own account.

Following is an Administrator Log tab.

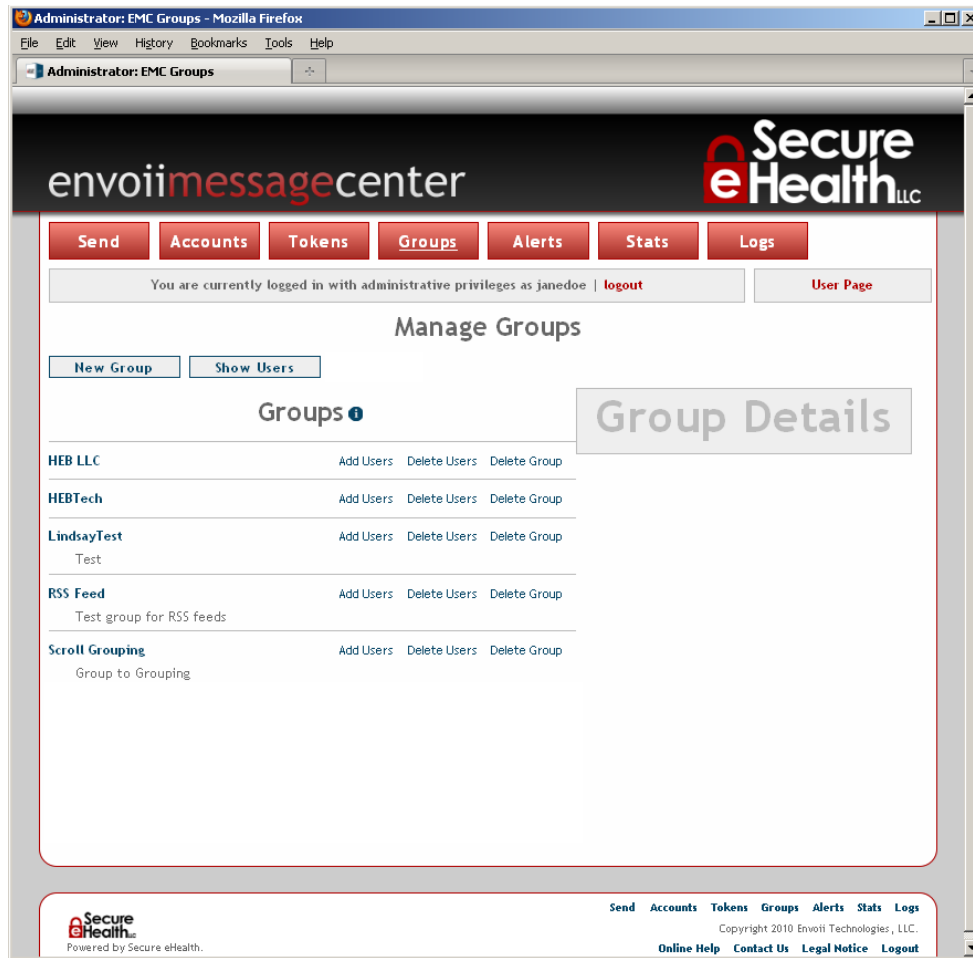
The screenshot shows the Administrator interface for the Envoii Message Center. The browser window title is "Administrator: EMC Logs - Mozilla Firefox". The page header includes the "envoii message center" logo and the "Secure eHealth LLC" logo. A navigation bar contains tabs for "Send", "Accounts", "Tokens", "Groups", "Alerts", "Stats", and "Logs". Below the navigation bar, a status bar indicates the user is logged in with administrative privileges as "janedoe" and provides a "logout" link and a "User Page" link. The main content area is titled "Audit Logs" and includes "Refresh" and "Export" buttons. Below the buttons, it shows "12096 Logs(s)". A table displays the audit logs with the following data:

Date ↓	User ↓	Event ↓	Info ⓘ	Message / Event Detail ↓
Thu, 01 Apr 2010 11:34:18 CDT	cellery	Rss Feed Generated		ESPN Feed
Thu, 01 Apr 2010 11:34:19 CDT	lebaron	Rss Feed Generated		ESPN Feed
Thu, 01 Apr 2010 11:34:19 CDT	cellery	Rss Feed Generated		ESPN Feed
Thu, 01 Apr 2010 11:34:19 CDT	lebaron	Rss Feed Generated		ESPN Feed
Thu, 01 Apr 2010 11:40:21 CDT	charper	Rss Feed Generated		Trac Changesets
Thu, 01 Apr 2010 11:49:18 CDT	cellery	Rss Feed Generated		ESPN Feed
Thu, 01 Apr 2010 11:49:19 CDT	lebaron	Rss Feed Generated		ESPN Feed
Thu, 01 Apr 2010 11:49:24 CDT	charper	Admin User logged in		
Thu, 01 Apr 2010 11:50:39 CDT	charper	Account Deleted		lyoung_testacct
Thu, 01 Apr 2010 12:00:18 CDT	cellery	Scheduled Message		Monthly

At the bottom of the table, there are navigation controls: "<< 1 of 1210 >>" and a "Number Logs Displayed" dropdown menu set to "10".

Groups

Administrators use the **Groups** Tab create, modify, and delete groups. Groups are logical associations of users that are created to simplify the sending of alerts to a collection of individuals that have a common interest. Examples of groups could be all the people in an organization, in a workgroup, or who live in a certain location, or have a similar issue. A user can belong to many groups.



From this page, the Administrator may add a group, add or delete members from a group, delete a group, view membership for a group, and view groups for an individual user.

Tokens

Administrators use the **Token** tab to create registration tokens. Tokens are embedded within a link to specify that a user has been authorized to create an account. The token is also used to specify which EAC cube that the user has access to when they download the cube to their desktop

From this page the Administrator may create a new token, modify an existing token, delete a token, and create an invitation to join the system. To create an invitation, the Admin must know the email address for the invitee and select a token to correlate with the invitation.

The screenshot shows the 'Manage Tokens' page in the Envoii Message Center Administrator interface. The page features a navigation menu with buttons for 'Send', 'Accounts', 'Tokens', 'Groups', 'Alerts', 'Stats', and 'Logs'. The user is logged in as 'janedoe' with administrative privileges. The main content area displays a table of 13 tokens with the following columns: Date, Title, Expiration, Uses, and Cube. Below the table are navigation controls and a 'Number Tokens Displayed' dropdown set to 10. There are also 'Create Token' and 'Update Token' buttons with 'Display' links.

<input checked="" type="checkbox"/>	Date ↓	Title ↓	Expiration ↓	Uses ↓	Cube ↓
<input type="checkbox"/>	Thu, 18 Mar 2010 00:00:00 CDT	VHGI Gold		10	EMC Cube
<input type="checkbox"/>	Thu, 18 Mar 2010 00:00:00 CDT	Envoii Tech	Wed, 31 Mar 2010 00:00:00 CDT	10	EMC Cube
<input type="checkbox"/>	Thu, 18 Mar 2010 00:00:00 CDT	WCI		5	EMC Cube
<input type="checkbox"/>	Thu, 18 Mar 2010 00:00:00 CDT	Wound Mgmt		25	EMC Cube
<input type="checkbox"/>	Thu, 18 Mar 2010 00:00:00 CDT	VHGI Holdings		8	EMC Cube
<input type="checkbox"/>	Fri, 26 Mar 2010 00:00:00 CDT	EMCMainToken		71	EMC Cube
<input type="checkbox"/>	Fri, 02 Apr 2010 00:00:00 CDT	HEB Token	Fri, 23 Apr 2010 00:00:00 CDT	55	EMC Cube
<input type="checkbox"/>	Mon, 05 Apr 2010 00:00:00 CDT	HealthPoints		5	HealthPoints
<input type="checkbox"/>	Mon, 05 Apr 2010 00:00:00 CDT	My Fake Token		23	HealthPoints
<input type="checkbox"/>	Thu, 08 Apr 2010 00:00:00 CDT	Acme Token		100	EMC Cube

Stats

The **Stats** Tab is the page that the Administrator can use to view the alert traffic levels to each user. Traffic is monitored to each user showing statistics of how many total alerts, how email alerts, and how many SMS alerts were received by each user, as well as how many total alerts each user generated. These statistics are aggregated on a monthly basis and can be presented as a monthly statistic, a quarterly rollup, or an annual rollup.

The alert traffic statistics are presented in a data table. with the first column being checkboxes to select individual rows, a user column, year column, a period column, Alerts (total alerts) column, Email (total alerts via) email, SMS (total alerts via SMS) column, and a Sent (total alerts sent by this user) column.

The first column of the table is checkboxes used for selecting individual users. The blue checkbox in the first column of the header row is to select all visible users. The table can be sorted by any column by clicking on the column heading.

All stats or a filtered subset of stats can be exported to a .csv file.

The screenshot shows the 'View Stats' page in the Envoi Message Center Administrator interface. The page features a navigation bar with tabs for Send, Accounts, Tokens, Groups, Alerts, Stats, and Logs. Below the navigation bar, a status bar indicates the user is logged in with administrative privileges as 'janedoe' and provides a 'logout' link and a 'User Page' link. The main content area is titled 'View Stats' and includes two dropdown menus: 'Select User(s)' and 'Select Period(s)'. Below these menus are 'Refresh' and 'Export' buttons. A table displays 65 statistics for various users, with columns for User, Year, Period, Alerts, Emails, Text Messages, and Sent. The table shows data for users like 'admin', 'aldrin', 'armstrong', 'borisb', and 'bstout' across April and May 2010. At the bottom, there are navigation arrows and a 'Number Logs Displayed' dropdown set to 10.

<input checked="" type="checkbox"/>	User ↓	Year ↓	Period ↓	Alerts ↓	Emails ↓	Text Messages ↓	Sent ↓
<input type="checkbox"/>	admin	2010	Apr	12	0	0	1
<input type="checkbox"/>	admin	2010	May	45	0	0	8
<input type="checkbox"/>	aldrin	2010	Apr	121	53	0	11
<input type="checkbox"/>	aldrin	2010	May	5	5	0	0
<input type="checkbox"/>	armstrong	2010	Apr	185	0	0	0
<input type="checkbox"/>	armstrong	2010	May	12	0	0	1
<input type="checkbox"/>	borisb	2010	Apr	222	0	111	22
<input type="checkbox"/>	borisb	2010	May	9	0	8	30
<input type="checkbox"/>	bstout	2010	Apr	7	0	0	1
<input type="checkbox"/>	bstout	2010	May	36	0	0	5

Templates

The **Templates** tab allows the Super-User to set system-wide defaults for alerts sent via text message and email. The Super-User can define which fields get included in these alerts and may also specify default override text to send in those fields.

The Super-User can choose whether the Title, Text, or URL fields are displayed or can choose to have any of those fields overridden with specified text. In the case of SMS alerts, the Super-User may wish to not send certain fields to help shorten text messages.

The Super-User may also define a system-wide timeout value (in minutes). This is a security feature which will automatically log out idle users.

The screenshot displays the 'Administrator: EMC Templates' interface in Mozilla Firefox. The page title is 'Administrator: EMC Templates' and the browser address bar shows 'Do you want Firefox to remember the password for "admin" on envoii.com?'. The page features a navigation menu with 'Accounts', 'Templates', and 'RSS' tabs. The user is logged in as 'admin' with 'super-user privileges'. The main content area is titled 'Alert Text Message Template' and includes the following fields and options:

- Show Title:
- Override Title:
- Show Text:
- Override Text:
- Show URL:
- Full Override URL:
- Additional Text:

Below the main form, there are sections for 'Email Templates' and 'System Settings', each with a 'Display' button. A 'Save' button is located at the bottom of the main form. The footer contains the Secure eHealth logo, copyright information (Copyright 2010 Envoii Technologies, LLC), and links for 'Online Help', 'Contact Us', 'Legal Notice', and 'Logout'.

RSS

The Super-User may use the **RSS** tab to configure external RSS feeds to be sent out as alerts to users. The system can be configured to manage many RSS feeds but each user can only receive a single feed.



The screenshot shows the 'Administrator: EMC RSS' page in Mozilla Firefox. The page header includes the 'envoii message center' logo and the 'Secure eHealth LLC' logo. A navigation bar contains 'Accounts', 'Templates', and 'RSS' tabs. A status bar indicates the user is logged in as 'admin' with a 'logout' link and links to 'Admin Page' and 'User Page'. The main content area is titled 'RSS Feeds' and contains the following form elements:

- RSS Feeds:** A dropdown menu labeled 'Select Feed'.
- Broadcast:** A checkbox.
- Select User(s):** A dropdown menu with options: None, Admini Strator (admin), Bobby Stout (bstout), and Boris Badenov (borisb).
- Select Group(s):** A dropdown menu with options: None, HEB LLC, HEBTech, and LindseyTest.
- Feed Name:** A text input field.
- Feed Link:** A text input field.
- Buttons:** 'Submit Feed', 'Edit Feed', and 'Delete Feed'.

The footer of the page includes the 'Secure eHealth' logo, the text 'Powered by Secure eHealth.', and navigation links for 'Accounts', 'Templates', 'RSS', 'Online Help', 'Contact Us', 'Legal Notice', and 'Logout'. Copyright information for 2010 Envoii Technologies, LLC is also present.

The Super-User may create a feed, edit a feed, or delete a feed from this page.