



e-mePrototype - Web







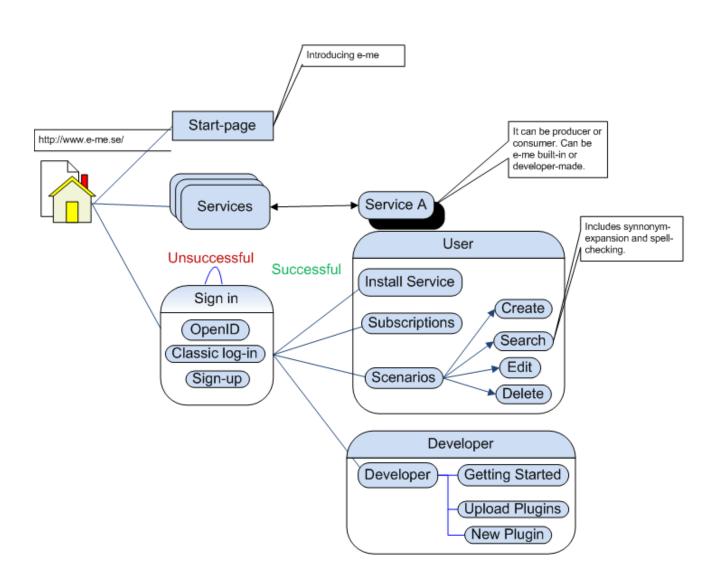
1 Prototype Web

1.1 Architecture

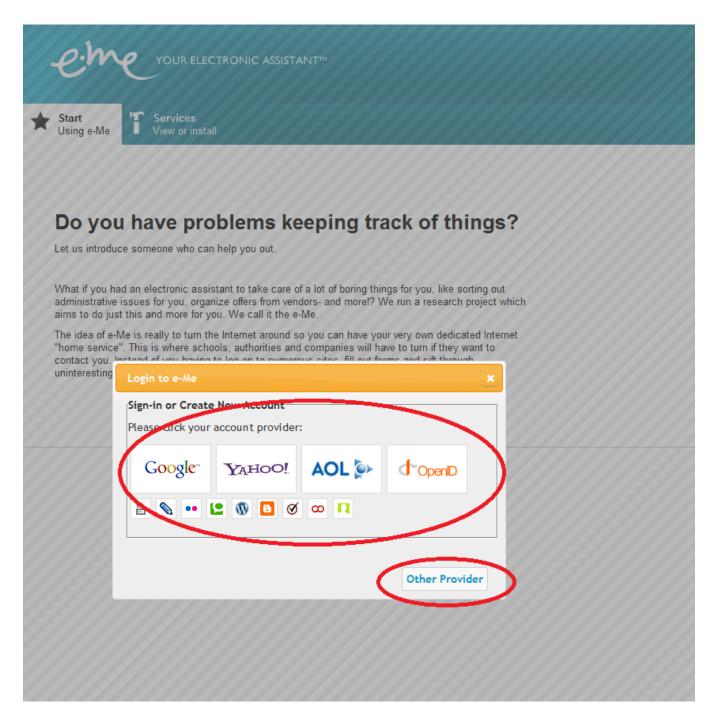
The start page consists of an introduction to e-me and in which areas it can help the user. Besides, the visitor can look at the list of available services without having an e-me account. The list of services includes all types of services that can be producers (services that produce information for the user) and consumers (services that consumes/receives the information from producers). The services that are available can be built-in services that are developed by e-me developers in Innovationlab or can be developed by volunteer developers in an open source manner.

e-Me 2.0 Web Conceptual Diagram

Thursday, November 17, 2011 Created by Fatemeh Saadatmand



The visitor has two options in order to sign up for e-me website namely OpenID and classic form of login if the visitor does not have open-Id account (OpenId accounts consists of Google, six apart, Yahoo, flickr, myspace.com, facebook, wordpress, eriSign, Aol, ...¹) can sign up with the classic process of sign up including filling the sign up form with personal information and receive the verification e-mail. In addition, the log in can be for the user who will use the provided services by e-me or can be for developer who will participate in developing process of the website by developing services for e-me.



After successful log-in as a user, the user will be able to install the services she/he finds interesting and create keywords to filter the information flow between producer and consumer services. (The mechanism will be expressed more in following sections)

1.2 Software

The web part of e-me is developed with Grails 1.3.7 mostly, Groovy 1.8.0, java 1.6.0 and uses Hibernate 3.3.1.GA for data affairs and My SQL server 5.0 for database.

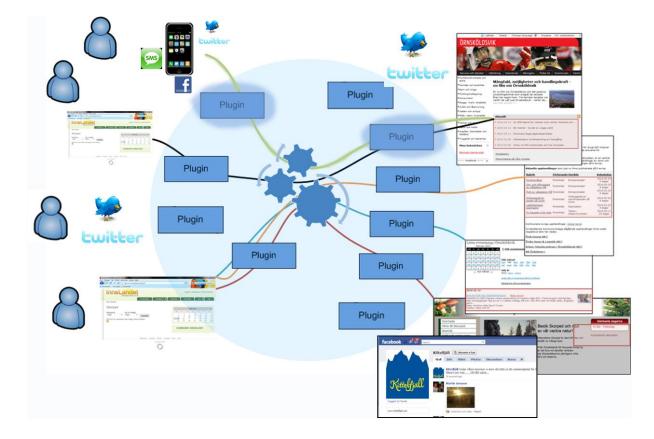
1.3 Idea

E-me is designed to be used as an electronic assistant. Instead of you having to log in to numerous sites, fill out forms and surf through uninteresting offers and etc. e-me will do it for you. E-me is actually working as an Information-bringer since its main role is to take the information the user is interested in and deliver it to the user in the way the user is more comfortable with which can be e-mail, twitter and etc.

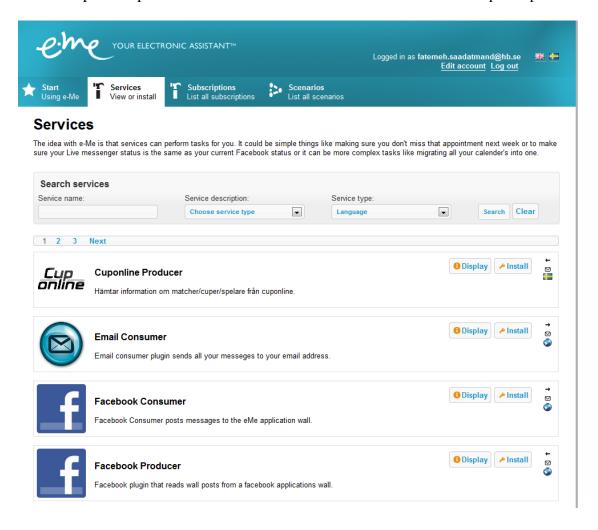
What can make internet usage so interesting is having the information user is really interested in out of tons of information available on World Wide Web, but what can make internet so bothersome is that for any category of information user needs to remember the username and password, to log in, take care of different information and look for any different kind of information in different place. To make life easier, e-me can take care of all of this bothersome chores. The only think that user needs to do for make this miracle happen is to configure e-me once for each service user needs information from. Furthermore, e-me needs to be told how often information is needed, how the information should be delivered and etc.

1.4 Services

As stated before e-me's main goal is to move information around. Actually all e-me understands is to take information from somewhere and take it to somewhere else. The first place is known as the producer to e-me since it produces the information and the second place is known as consumer since it will consume the information to show to the user. The point is e-me does not know what is happening inside these two places. These two are services, or plug-ins in other word, which are categorized in two main groups of producer and consumer.

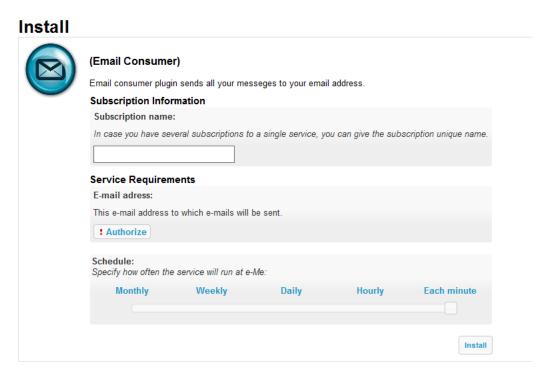


Plugins can be built-in services that are developed by innovationalb developers or those that are developed by volenteer developers. E-me gives any other developer the chance to upload as many plugins as they want in order to increase e-me usablity and to fulfill more users with varied interests. Besides, it is believed that it can lead in to a more creative artifact. On the other hand, since the volenteered developers are planned to be students this idea will increase students' participant in e-me.



1.5 Subscriptions

Subscription makes the usage of services possible. Without installing a service, it will be useless. After installing the service by user a copy of the service will be saved for the user based on the user's configurations.

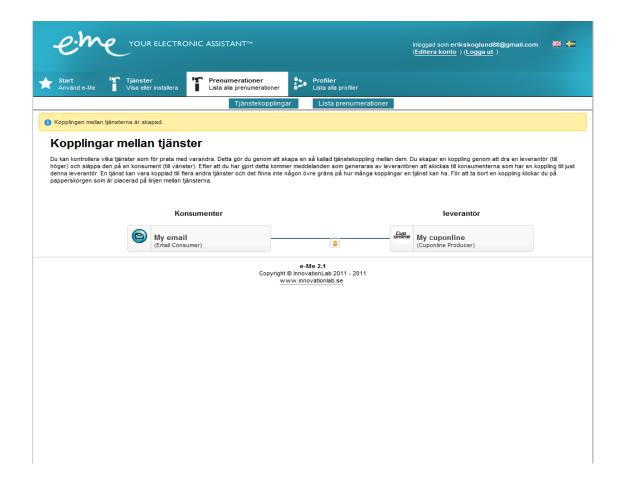


The user can change the configuration of any subscription whenever he/she wants. Finding the subscription is so easy since they are listed under the Subscription tab of the user's e-me page, the list is provided by a search tool that searches through the list based on type and name of the service.

1.6 Connections

Connections make the relation between two plug-ins possible. Actually this relation defines the two places that were discussed before. The two places that e-me should take from and deliver to the information. A connection is always defined between a producer plug-in and consumer plug-in. Consequently, a connection shows the data flow between two different services.

To be more precise, connections are defined between two subscriptions; thus, connections can be viewed and even changed under the "service connections" tab under the main tab of "Subscriptions" as shown below:



One can question where does a connection initiate or who and when creates the connection? The connections are all created and defined by users. The user defines a connection while configuring e-me for taking information and filtering it by the given keywords.

Clearly, the user can deletes the connection whenever he/she wants, so the information will be cut as a result.



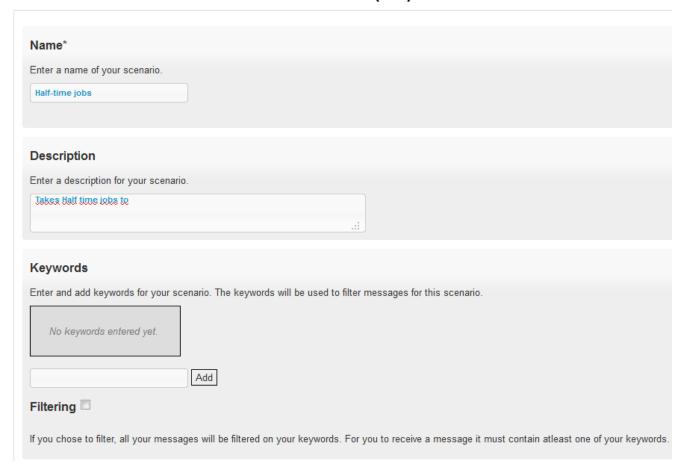
1.7 Scenarios

Scenarios are where subscriptions, connections between them and instructions on how to filter the information flow from a producer to a consumer exist.

In order to create a scenario the user can define a description to make the functionality of the scenario more clear, it will also benefit the creator initially and can benefit other users of the scenario if the scenario is a public one since the creator can make the scenario public so it will be visible for every eme user so they can utilize it.



Create Scenario: Scenario Information (1/3)



Next, user can add as many subscriptions as possible but for sure they have to be at least two subscriptions including a provider and a consumer to make Information fetching possible. If the user does not find the desired subscription he/she can install a new service and return to creating process without loosing data.

Finally, the connection between different subscriptions will be defined so e-Me knows which information should be delivered via which consumer.

1.7.1 Search Scenarios

Searching scenarios includes an advanced search including synonym-expansion search and spell-checking.

- Synonym-expansion search: the search result of any word that the user searches will not be restricted to the typed word by the user but also will consist of any scenario matching the typed word's synonyms. Currently it covers both English and Swedish version of the site.
- **Spell-checking**: If there is any spelling problem in the search query, the probable equivalents of the word will be suggested as a link which

will lead in to the search results for that word. Suggestions will be showed from the most probable to the least probable one.

1.7.2 Keywords

The information flow between producers and consumers is filtered via keywords so they need to be selected accurately. Keywords are configured while creating the scenario. Each scenario can have as many keywords as possible and it means that all the connections that are defined in the scenario which are created between each producer-consumer pair will lead to fetch the information that match the entered keywords.

1.7.3 Ranking

Public scenarios can be ranked by users to help others to find the most appropriate one that matches their interest.

As stated earlier, scenarios can be of two types of public and private. Private scenarios are only visible to the owner of the scenario while public scenarios are visible to all e-Me users so that users with same interests can use a common scenario.

On the other hand, there might be scenarios with almost same result so it will be always useful to have a ranking feature in such cases; thus, users can find the best one that suits their needs. Besides, they can rank a scenario in order to let others know the usability degree of the scenario.

1.7.4 Commenting

Comments are allowed on public scenarios, too. Users might not need only the usability of the scenario but also more explanation on the scenario that can second the description of the scenario mostly along with shortcomings and strong points.

1.8 Oauth

OAuth (Open Authorization) is an open standard for authorization. It allows users to share their private resources (e.g., photos, videos, contact lists) stored on one site with another site without having to hand out their credentials, typically username and password.

OAuth allows users to hand out tokens instead of credentials to their data hosted by a given service provider. Each token grants access to a specific site (e.g., a video editing site) for specific resources (e.g., just videos from a specific album) and for a defined duration (e.g., the next 2 hours). This allows a user to grant a third party site access to their information stored with another service provider, without sharing their access permissions or the full extent of their data.¹

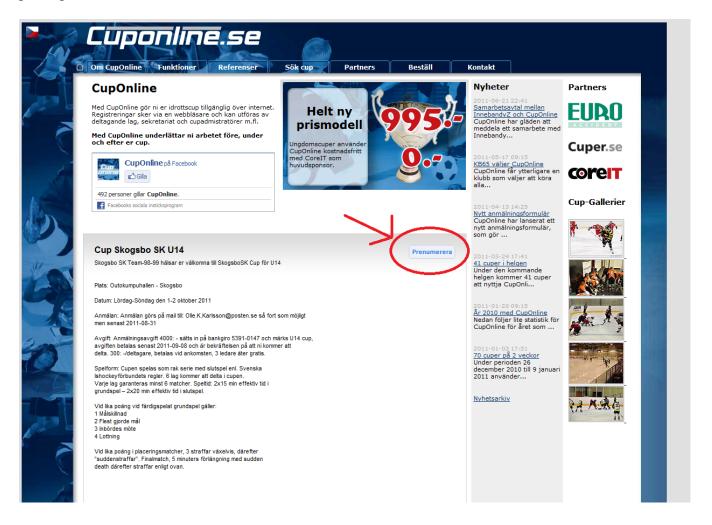
e-me uses Oauth technology in order to link to the user's facebook account whenever is needed.

1.9 API

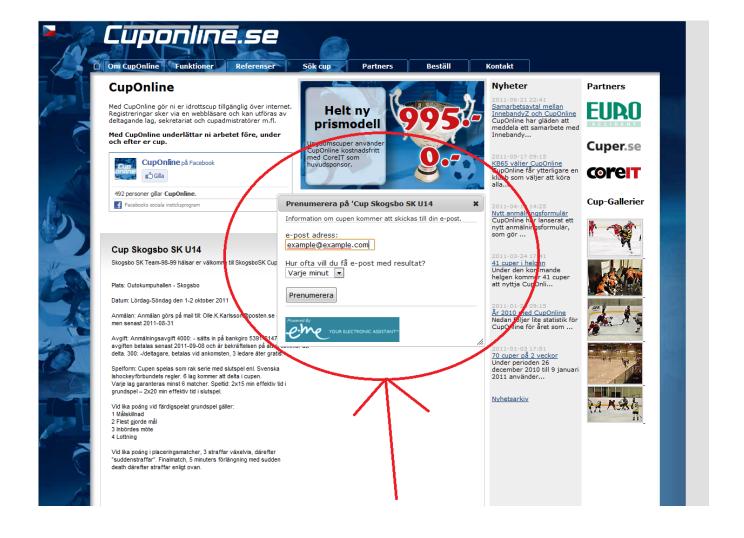
One of the features e-me provides web developers who has a website that would want to integrate it with e-me is an api feature. Any website that wants to use facilities of e-me can simple use this api to send the information to. In order to do that e-me needs to verify their identity. E-Me provide any such websites by a key called api-key that they need to send it via their information or they will fail using facilities of e-me.

1. Oauth definition accessible at http://en.wikipedia.org/wiki/OAuth, last access 11.17.2011.

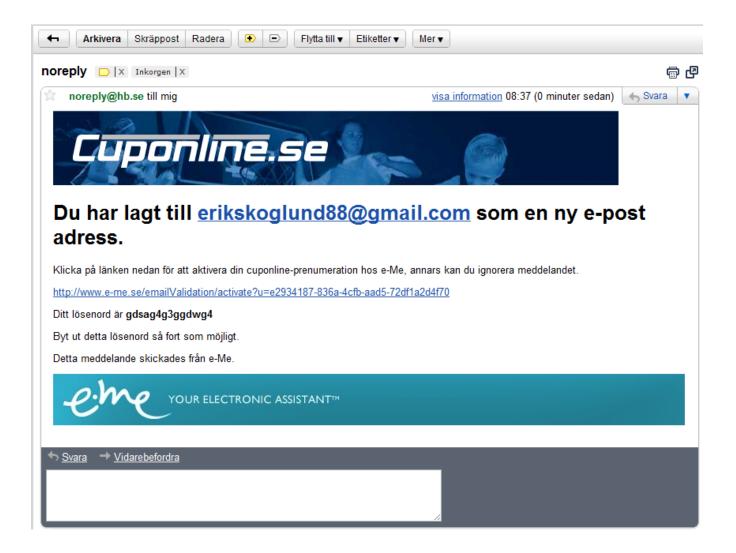
Below you can see one of the examples of integrating e-me in Cuponline. Cuponline makes sports cups available on the internet which means you can administrate sport cups, get information as a cup participant,....



In this case e-me is used as to get information from the website and take it to the user's email.



By clicking on the subscribe button, user will get the needed scenario created automatically. If the user is not already registered in e-me, will be registered in e-me automatically before making the scenario. After everything is done he/she will be provided by an e-mail shaped as below:



If the user is already registered will be led to login page so can see the automatically-made scenario directly.



Bofors IK Name: Bofors IK Description: Visar Bofors IK Keywords: Bofors IK Message producers: The following services produces information. → 🖾 My Cuponline (Cuponline Producer) online Hämtar information om matcher/cuper/spelare från cuponline. Message consumers: The following services consumes the information. ← 🖾 My Email (Email Consumer) Email consumer plugin sends all your messeges to your email address. Public scenario: 1 Filtering Connections: The following connections between consumers and producers are currently active for this scenario.

Producers

My Cuponline
Cuponline
(Cuponline Producer)

Consumers

My Email

(Email Consumer)