**Webmachine**

**Developer Notes**

**Refactoring 0.7.0**

**Introduction**

The webmachine platform delivers administrative functions for the Strategic Machines suite of services. This includes functions like

* Custom static site generation for marketing, news and announcements
* Customer registration and network activation
* Member registration
* Product (agent) selection, configuration and subscriptions
* Custom development of virtual agents through the Strategic Machines developer network
* Analytics
* Multi-channel support (future)
* Contact Center integration and deployment (future)

The Strategic Machines vision is to help clients serve their customers effectively through intelligent real-time engagement technologies

**Functional Change Introduced with .7**

The .7 webmachine platform introduces a data model supporting multi-tenancy. This is a requirement of SM services platform for real time messaging and required as well by all administrative processes. In essence:

* The platform has two modes of operation (test and production) as highlighted in platform.json
* The platform points to the physical database which holds the collection of registered customers
* Each registered customer can specify the api for their physical database. Their database instance holds the collections that are unique for their operation on the SM platform
* A customer (network owner) has members, interactions (text messages) and agents.
* A customer network may operate in private or guest mode. Private mode means that anyone texting the network (using the network phone number, web widget, slack channel etc.) would only see a response if they are a registered member of that network. Public mode means the network will handle guests. A public network may have agents that only operate in ‘private’ mode – meaning for registered members only.
* Every registered user of a customer network is a ‘member’ of the network. We can refer to a registered user as a ‘basic member’. There are also multiple types of members, where extended definition of the member is required. Today, the platform recognizes a type of ‘developer’ who is a member of the network but also doing work in the market. With the extended definition of member, we collect additional information on the developer so that they can be assigned work, and paid for work completed
* Each agent is powered by its own unique ai engine classifier, which requires configurations unique to the customer
* Conceptually, each customer could also have their own set of workitems (requisitions for custom agents, for example), pointing to their own private repos which hold their protected code base. In addition, the customer could have their own developer network (this might be a requirement of developers working on their code require specific, additional security checks, or are in fact employees of the customer)

At this stage, I anticipate deploying the platform with only “1 customer of the platform’ (Strategic Machines) operating a ‘market’ for developers and available work requisitions. But the multi-tenant model would support anyone operating in the same mode with the right enablement.

We began development on the webmachine with the perspective that single tenant would be simpler to grasp, build and test. We are obviously introducing complexity in the SDLC with this shift to .7 – especially without devops automation to help manage progress and releases – requiring all of us to communicate intensively and to stay coordinated as we drive to an ‘MVP’.

**Scenarios (? Indicates that not all requirements fully parsed. Needs discussion)**

* A website visitor browses available information on the site, such as solutions, documentation, announcements and news. No registration needed.
* A website visitor Registers to create a network – which would require going through the platform registration process and creates documents in the client collection
* Separately, a network owner indicates they want to be a member of the network as well? A document would be created with basic information would be created in the customers member collection. Note that cell phones need 2fa
* A network owner logs in to manage information. This might also include managing their member data?
* A network owner logs in to generate a static website, view agent gallery, configure new agents, manage members on the network, view analytics of recent traffic and interactions
* A network member wishes to view a gallery of other members of their network?
* A website visitor wishes to register for a network.
  + Enter cell phone number to view pending network invitations?
  + Enter a network name and proceed to register for the site (a registration may be pended until approved)?
  + Browse public networks which they can join?
* A website visitor wishes to register for a network and notes that one of the networks is Strategic Machines – the developer network. (this network in some respects demonstrates the power of a messaging network to conduct commerce) Registration by the visitor is pended until approved (one the ‘modes’ for registration). Note that Strategic Machines as a customer of the platform has already registered and created the work through the platform registration process.
* A website visitor who logs in with credentials authenticating them as a member of the strategic machines (sm) network will be granted access to other web site pages, including workitem browsing and selection?
* The owner of the platform is the super user with admin privileges across the platform, including customer registration data and member data of customers? (runs a network of networks?)
* The owner of the strategic machines platform has admin privileges to certain web pages for creating and maintaining work items?
* An authenticated network owner wishes to configure ‘interactions’ for their network. This will include scripting, agent definition and configurations, testing etc. This may require an offline process with custom specs?
* An authenticated network owner wishes to browse the agent gallery and identify potential participants in their network. Deployment of selected agents may (will) require an offline process with custom specs?
* A website visitor can browse the agent gallery and interact. Part of the marketing process? The ‘deploy me’ button takes them to the network registration page
* The platform registration process is handled through slack (the ui) with slack bot agents integrated with the platform handling the collection of information?
* Members to a network register through slack – interacting with platform agents. The lack account is owned by the network owner and can be used for additional communications and posting of information (as we do for our ‘developer team’ on strategic machines)?