

Strategic Machines, Inc.

Agreement with Dan Orlovsky and Juan Gonzalez

April 24, 2018

For professional services:

Web Machine Platform Refactoring for Multi-tenancy and OAuth

Update the code, tests and processes on the webmachine platform to accommodate multi-tenant operation and to integrate the webmachine reactjs webpages with the new structure for routing and authentication.

You will serve as the principal senior developers for this effort, providing guidance and documentation (where required) for other developers operating on the platform. Multitenancy can be complex, and it is imperative that we work to keep the concepts, applications and data models as simple as possible. Your collaboration and completion of this work requisition as a team is needed in order to deliver an outcomes that is useful for the MVP.

Ultimately, the data-related functions of webmachine will be segmented and deployed to a separate data base server, permitting webmachine and the messaging platform (and ultimately Twilio flex) to access a common set of data.(future round of refactoring)

The following requirements will be met as part of this work order

- Update the process seedTestDb to access the test mongodb uri from process.env file. In other words, while dbname would still be access from platform.json and the client.js objects, the mongodb uri would be a variable from .env, permitting developers to easily specify this configuration when seeding test data
- Refactor all api calls using a consistent pattern with the messaging platform for handling multitenancy. (PDH to provide code snippets). Ensure each path is tested and operates as expected when .env files are changed from test to production, or different clients are logged to the platform
- Refactor all pages, paths, workflow, schemas and test data for multitenancy. The workflow begins with login. OAuth for routes, webpages, functions and services work as expected (The oath process and home page development is outside of the scope of work order but will need to be completed and incorporated into the final deliverable for this requisition).
- With an authenticated website visitor, appropriate datasets are dynamically connected demonstrating multitenant model
 - The scope of this refactoring for multitenancy includes the paths and pages for /market, /agent, /platform and /
- Ensure all code is annotated with comments as appropriate, to ensure other developers can follow your work
- Implement helmet, and ensure appropriate security features from this package are deployed
 - Article reference for additional background on helmet
 - <https://nodesource.com/blog/nine-security-tips-to-keep-express-from-getting-pwned/>

- Note – production servers on mlab which are deployed to an aws instance will use mlab encryption features. No testing of encrypted data is required as part of the scope of this workorder
 - Ensure all code is updated with comments, to ensure other developers can follow your work including README.md with new instructions as appropriate
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Additional known refactoring actions specific to the /market directory

- Update test data seeding function to ensure that a coordinated set of github repos are created consistent with the test data in workitem.js If this cannot be handled programmatically, Juan and PDH will discuss other solutions to ensure that the test environment is resilient and reliable
 - Ensure appropriate error handling in place, for conditions like 'github repo' not found for documents in the workitems collections (no silent failures)
 - code and test data updates required for member schema, to accommodate a member type of 'partner'. All users of a network are members (i.e. a basic member) We will have other 'member types' beyond a basic member in the future as the platform evolves in response to customer requirements (i.e. sales associates, maintenance teams, truck drivers etc.). One of the new member types today that is being implemented as part of the product MVP is for a developer (partner) which is defined as any professional who has been granted access to do work in the market. These are professionals who need an extended schema to the member schema, to record additional information related to their role on the platform. In addition to privileges of a basic member (they can send texts in the network to which they subscribe), they can also access workitems, select workitems, and get paid for workitems. A refactored 'partner' schema which is managed in conjunction with the member schema using mongoose populate is required, along with updates to test data and apis.
 - Conceptual note – although any client of the platform could establish a market in the multitenant webmachine platform, Strategic Machines will be the only 'customer of the platform' to be operating a market when the platform is deployed live for production. Accordingly, the test data sets should reflect Strategic Machines as the only market operator at this time.
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- Demonstrate disciplined and well-organized coding techniques for all modules delivered. Ensure that code is well structured and commented
- App design decisions will be consistent with app architecture of the webmachine platform.
- Tests will be included using an appropriate test runner (see market app for example)
- Code will be delivered through pull requests on the 'strategicmarket' github site consistent with the codex

- Expected delivery date of final deliverable is targeted for May 15, 2018. Once the platform is successfully deployed to the IBM cloud and tested, an additional bonus of \$500 each will be remitted
- You agree that this is work for hire, work will be done in a quality manner, all deliverables are owned by Strategic Machines, Inc, and the work or concepts will be treated confidentially and not be disclosed to another party without express written permission of Strategic Machines
- This work order can be terminated by either party at anytime

Payments:

\$1200 Juan
\$1200 Daniel

upon delivery of this tested application. Any specific instructions for the operation or configuration of the app should be delivered as part of README file inside the directory for this app.

In addition, once a completed and tested webmachine application is deployed to a cloud platform, and successfully works, an additional payment will be made of

\$500 Juan
\$500 Daniel

Your signature on the line below indicates your agreement to the scope and terms of this work order.

Keep 1 copy of this signed workorder for your records and return 1 copy to Strategic Machines



Agreed to:

4/24/18

Date: