

Strategic Machines, Inc.

Agreement with Alex Scott

May 21, 2018

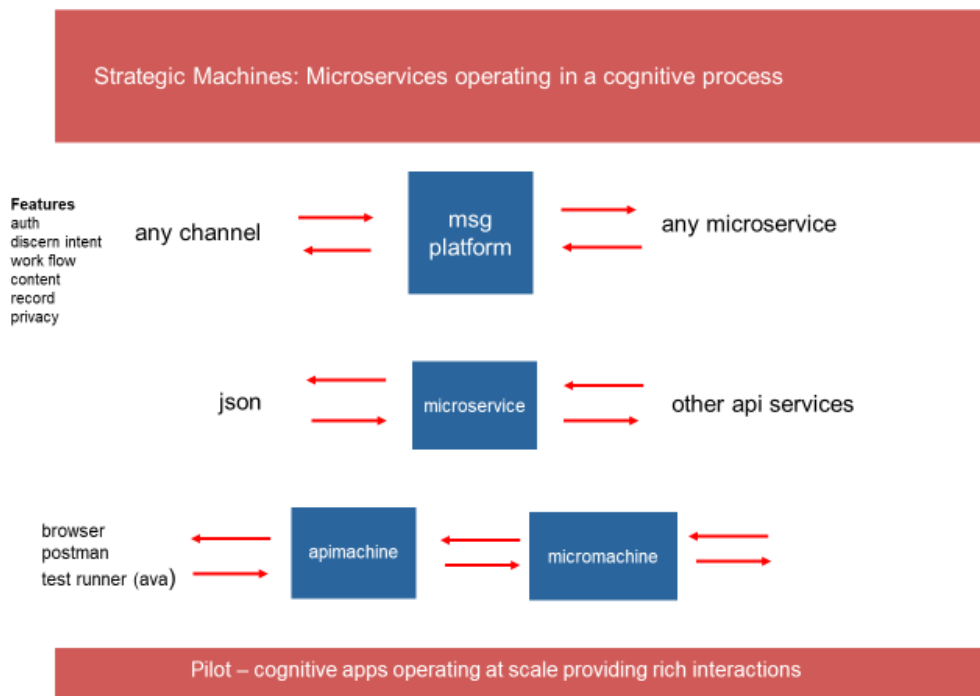
For professional services:

Microservice development and pilot of AWS platform

The novel idea of Strategic Machines is that cognitive applications can be delivered in a short cycle at a lower economic price point by leveraging microservices. The term 'cognitive' has become synonymous with 'artificial intelligence', and as a result, many static or highly predictable tasks that can be handled through pure functions are being deployed to complex ai platforms. As a result, complexity and costs mount. Organizations are reluctant to adopt. Opportunity is lost.

Strategic Machines is dedicated to the delivery of winsome Brand interactions through chat. By meeting customers in any channel and delivering hybrid solutions through smart virtual agents, we help our clients gain a competitive edge in their respective markets. Microservices is at the heart of the architecture.

As additional context for this workorder, note the following diagram



1. The 'msg platform' is designed to handle a text message from any channel (slack, sms, fb, telegram, viber etc.) The text message is authenticated, analyzed and passed to a microservice for processing as part of a uniform data object, along with a rich set of additional information that can be used by the microservice to compose responses.

2. The microservices receives a json data object, and processes that data object by initializing a constructor. The constructor (published as an npm package in the future) provides a set of functions for interrogating the value of properties on the data object and returns an array of replies to the messaging platform
3. The apimachine and micromachine are 2 simple servers, which ultimately needs to be integrated into a tool chain for building and delivering microservices at scale (cd/ci). The development of this tool chain is outside of the scope of this workorder – but documenting the process for another developer to follow is in scope.

This work order is more extensive than a typical workorder for a microservice since it involves a ‘pilot’ of the process a developer might follow in building, testing and deploying a service ...as well as the delivery of a service against a set of specs.

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

- Build a microservice and deploy to AWS Lamda
- The microservice will handle static requests for Mercy Church, helping to replace the functions that are already deployed for Mercy on the v0.5.0 platform. (see appendix)
- The single microservice will use a ‘switch case’ method and pivot off the classifier.topclass property on the data object. This property contains the ‘intent’ returned by the Watson classifier function. The Watson classifier is trained through a separate process and dataset (machine learning) to decipher a message received from the user.
- The ‘default case’ (to handle the case when the microservice does not have a case matching a Watson intent) should simply return the message ‘I did not understand your request. Please contact support’.
- For each intent that Watson is trained to recognize, the microservice is ‘configured’ or scripted to handle. You will note in the appendix that for any single intent, there are an array of responses and a link. This represents one ‘pattern’ for microservices that we will be designing against (the ‘static response’ pattern)
- The microservice selects a response from an array of responses randomly, returning the response and url (if one is provided)
- The microservice will use the constructor to interrogate the data object for values, and to provide a response array (**note:** I recognize the constructor is not entirely complete – and is poorly documented. ‘Challenges of a start-up’ but appreciate your feedback on new functions needed, existing functions that are broken, and ideas on how to improve. I will be upgrading the ‘constructor function’ periodically and will deliver through npm semver)
- Use apex.sh to deploy.
- The final ‘acceptance test’ for this AWS microservice will be executing the service successfully through the v0.8.0 version of the messaging platform (which I will construct when your microservice is ready to go)

In addition

- Demonstrate disciplined and well-organized coding techniques for all modules delivered. Ensure that code is well structured and commented

- Tests for the microservice will be included as part of this deliverable using ava and supertest on apimachine
- Code will be delivered through pull requests on the 'strategicmarket' github site consistent with the codex. The PRs will include updates for apimachine and micromachine. In addition, a new repository will be delivered for the microservice, consistent with the package components of sm_banter example (readme, .github, license etc)
- Expected delivery date of final deliverable is targeted for no later than June 9, 2018.
- 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

Payment:

\$480.00

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.

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

William A. Scott V

Agreed to:

05/30/2018

Date:

APPENDIX

Chart

intent	responses	attachurl
music	He is Faithful!	http://bit.ly/2CWpxCb
music	Our God is forever faithful!	http://bit.ly/2CWpxCb
message	Here is the link to our sermon series	http://mercycharlotte.com/resources/all-series/
banter	Hello! Welcome to Mercy Mobile	
banter	Hi. We're delighted you're here. Check out our latest sermon series. Or text worship for a song	
banter	Thank you for texting us at Mercy Church. You can ask for a sermon, music, directions --	
help	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
help	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
help	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
support	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
support	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
prayer	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
prayer	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
times	Our worship services are held at 9am and 11 am on Sunday, at the Levine Center in Matthews	http://mercycharlotte.com/about/worshipservices/
events	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
events	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
cg	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	

cg	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
weather	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
location	We hope to see you at Mercy Church. Check out the link for our location	http://bit.ly/2wAUDeR
location	Mercy Church meets in Matthews. Here is a link to find us!	http://bit.ly/2wAUDeR
location	We meet at the Levine Center in Matthews. Here is a google map for your reference	http://bit.ly/2wAUDeR
music	Worship our Lord!	http://bit.ly/2CWpxCb
mission	Thank you for your interest in serving. Please reference the attached link for short term mission trips	https://bit.ly/2qLtv4
beliefs	Please contact a member of our pastoral team if you have any additional questions about Mercy Church or our beliefs	http://mercycharlotte.com/about/beliefs/
children	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
students	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
college	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
giving	Thank you for your text. Our messaging platform is only responding to a limited number of queries at this time.	
registerstartingpoint	Thank you for your interest in Starting Point. We look forward to seeing you there! Please RSVP by clicking on the attached link!	http://bit.ly/2B5hoKn
music	Enjoy!	http://bit.ly/2CWpxCb
whatisstartingpoint	Starting Point is your opportunity to learn more about the Mercy Community!	http://bit.ly/2CyOPad
whenisstartingpoint	Starting Point is held nearly every month. We hope to see you at the next one!	
whereisstartingpoint	Starting Point will be held at the Levine Center	http://bit.ly/2wAUDeR
childcarestartingpoint	Yes. Childcare is provided at starting point but you will need to register when open	
worship	Here is the link to the Mercy Playlist on Spotify	http://spoti.fi/2FJ14SQ
membership	Join us for Starting Point Weekend to learn more getting involved with the Mercy Community!	http://bit.ly/2CyOPad
member	Great! Do you need child care for that evening?	

decline	We're sorry you cannot join us for member night!	
memberchild	Tap the link to register for child care on member night.	http://bit.ly/2B5M79Y
member	Great! Do you need child care for the evening	
member	Great! Do you need child care for that evening?	
close	Thanks!	
easter	Easter begins our new series: "Getting Started". Check out the link!	http://mercycharlotte.com/easter/
easter	We so look forward to seeing you on Easter. Be sure to invite a friend!	http://mercycharlotte.com/easter/
easter	See you on Easter Sunday! Our new series will be exciting!	http://mercycharlotte.com/easter/
easter	Let's worship our risen Lord on Easter! Check out the link for our new series!	http://mercycharlotte.com/easter/
easter	Easter will be a glorious day of celebration! Bring a friend!	http://mercycharlotte.com/easter/
music2	He's alive! Enjoy the newest single from Mercy Worship.	https://bit.ly/2GKg8TH
serveweek	Enjoy serving our City! Please tap the link to sign up!	https://bit.ly/2FFCz7V