Mobile App Development

Optensity's flagship product, AppSymphony, is a software platform that allows software developers and system integrators to rapidly integrate a disparate set of data sources, analytic techniques, compute environments and output mechanisms into intelligence solutions. It is designed to let developers quickly build data exploitation and analytic applications that execute at scale across a variety of computational environments, including hybrid clouds. The resulting apps can be run from iOS and Android mobile devices.

For the App Developer or Integrator

AppSymphony is a platform built by app developers for app developers. We were frustrated with the time it took to build new analytic applications as well as modify them to integrate new algorithms or data sources. We built AppSymphony to make it easy to develop and modify analytic applications using our graphical app development environment shown in Figure 1. AppSymphony delivers agile app development through:

- Rapid access to new data sources and formats
- Simple ways to test processing algorithms and data sources
- Robust automated error handling
- Scalable execution

For Content and Data Providers

AppSymphony allows data providers to build components that provide direct access to their analytic models and data sets. These components are then utilized by app developers or end user consumers. App and algorithm developers will consume more data if it's easily accessible:

- Provide access to open source or licensed models and data sets
- Publish multiple APIs to the same data sets

For Analytic Model and Algorithm Owners

AppSymphony allows model and algorithm owners to easily present their analytic capabilities via components that app developers can quickly integrate into easy to use apps. AppSymphony allows algorithm gurus to concentrate on exquisite algorithm development and leave the data access and scaling to us.
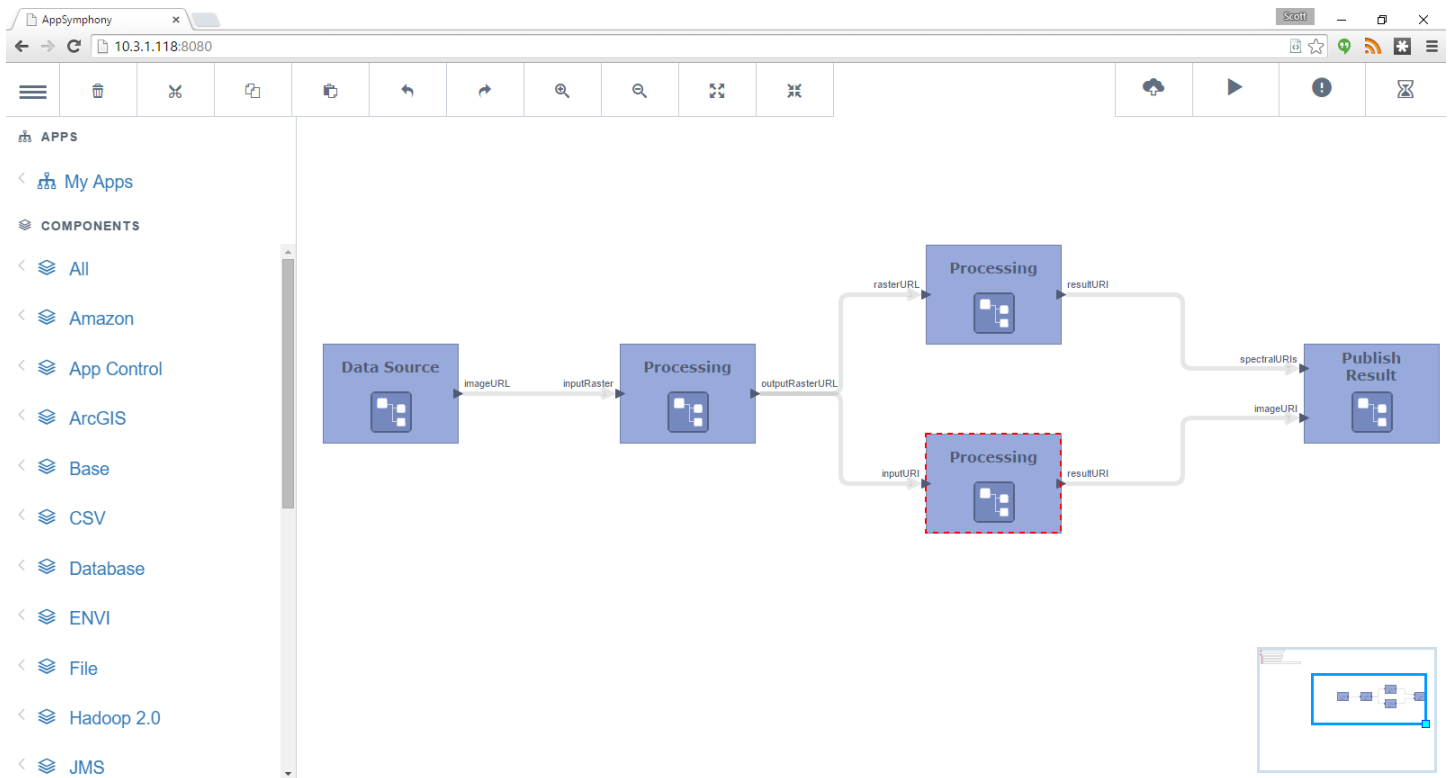
Figure 1 App Development Platform

Example App

Figure 2 shows Optensity Inc.'s first IGAPP app, Vegetation Health Monitor, which accesses Landsat imagery through an ESRI ArcGIS server, processes the data using Harris Corporation's ENVI tool, and then displays the result on a mobile app UI.
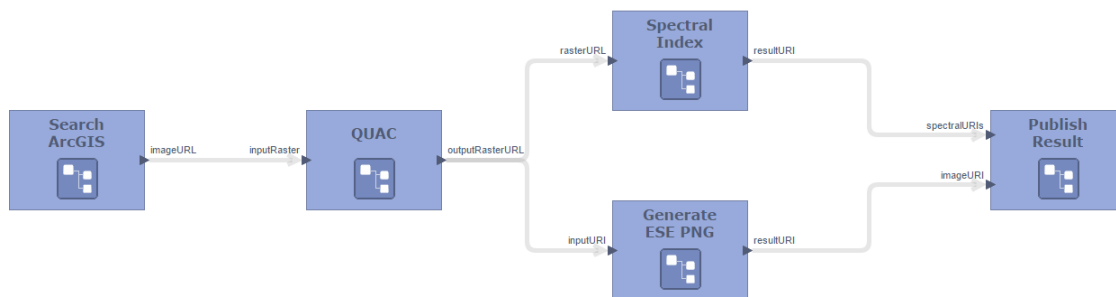

Figure 2 Vegetation Health Monitor, a Spectral Index App

Data Sources

AppSymphony makes it easy to analyze data no matter how it's stored. If the data is stored in a database format such as SQL, Accumulo, or Neo4J we have existing components to access the data you need. We also have a variety of components to access data via web services. There are a variety of components for data in public cloud infrastructures such as Amazon's S3, SQS and RDS, Microsoft Azure's Storage Services and Google's Big Table and Cloud Storage. We can also capture data from streaming sources whether they be social media or deployed sensors. If you need a data source or format that we don't support through existing components, then give us a call. We can quickly build components for you, or we can provide our component development kit so you can build your own.

Analytics

AppSymphony is designed for individuals and organizations that need to integrate internal capabilities, open source tools, and COTS analytic techniques into analytic pipelines. AppSymphony comes with a large set of components so app developers can be productive immediately. If your algorithms and data sources are available via standard interfaces, then the existing components will be sufficient.   The component development kit makes it easy to access existing data sources and algorithms written in a variety of languages including JAVA, C, C++, Python, Perl, Ruby, and others. The entire process to create a new component can be completed in a couple hours by a user with minimal software development skills. Using AppSymphony components, an app developer can easily build an app that will scale the infrastructure when the number of events exceeds the processing capacity of the current infrastructure.

Result Publishing

Existing AppSymphony components produce results in a variety of formats that can be consumed via mobile devices and traditional workstations.   Your app can also easily publish results to SQL databases, Neo4J, BigTable, S3, HDFS, Accumulo, and a variety of other formats. If you need production to a custom format, our component development kit can help you create a new component in a couple of hours.

Optensity Services

Whether you need help building a modern mobile interface or an analytic pipeline, Optensity's team has the experience to help you create your killer app. We've also been using Amazon's EC2 as our development and testing environment since 2010, so we can definitely shorten the learning curve if you need to deploy your app to a public cloud environment. We offer a variety of services packages for customers even if they are not leveraging AppSymphony.

Optensity Products

AppSymphony is available via a variety a pricing models designed to meet the needs of everyone from enterprises and integrators to product and app developers. We're happy to discuss your needs and help you find the best option for you.