

Case Study - Tendril



Mark Gately

Data Analytics Manager at
Tendril

Quick Facts

Company: **TENDRIL**

Industry: Energy, Software,
Smart Grid Technologies

Size: +30M homes analyzed

Web: www.tendrilinc.com

Use Case

Tendril uses ScienceOps to deploy and retrain predictive models that forecast consumer behavior and purchase decisions.

Results

2x faster **development cycles**

4x faster **time to market**

\$350,000 saved per year

in engineering costs

Tendril was founded on a powerful idea: energy demands innovation.

Tendril meets this demand for innovation by providing analytics and consumer solutions to energy suppliers. Tendril helps over 50 utilities optimize grid efficiency and leverage energy data to identify what types of energy services consumers might want or need for their homes. Tendril has delivered personalized energy experiences to over 30 million households around the world.

Tendril's home simulation model combines energy usage data with other geographic information such as a house's age and regional climate to improve traditional energy programs and suggest new products such as energy efficient LED light bulbs and solar panels.

The analytics team at Tendril uses R and Python to develop the algorithms that underpin this individual customer experience. "Until recently, the team built predictive models and then 'tossed them over the fence' to Engineering to be rewritten in Java and be deployed to production," recalls Mark Gately, Data Analytics Manager at Tendril.

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"Our analytics team was losing ownership of the models and we had no way of retraining or deploying models once they were rewritten into Java," explains Mark.

Mark set out to find a solution. "We wanted something that was easy to deploy and reliable. We'd recently moved our entire production environment to AWS, so we also needed an AWS-based VPC solution."

Mark's team considered multiple options, including building a solution in-house, before settling on Yhat's ScienceOps. "Ultimately," Mark explains,

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“ScienceOps offered the most developed deployment capabilities and was supported by exceptional customer service. We were up and running in a day or two. We only did about half a day of IT work. Yhat did the rest.”

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ScienceOps allows Mark’s team to control models through the entire lifecycle, from prototyping through to deployment and retraining. “We’ve seen significant top and bottom line benefits: lower engineering costs, shorter development cycles, and quicker time-to-market and model monetization.”

ScienceOps allows Tendril’s Data Analytics team to control models through the entire data science lifecycle, from prototyping through to development and retraining.

Tendril is currently using Yhat’s ScienceOps to deploy [Support Vector Regression](#) models created by the data analytics team for predicting household energy consumption. The API’s generated by ScienceOps are shared with solar providers, who use them to inform and personalize solar marketing materials and outreach. Tendril is also planning to deploy a propensity-to-buy model using ScienceOps, which smart thermostat manufacturers will be able to use to identify the best potential marketing targets.

“Yhat has made our data science team more self-sufficient and more effective. ScienceOps eliminated the need for us to work with Engineering to re-implement, test and deploy our models in production.

“ScienceOps cut our development cycle time (time to productionalize the models) in half. We’re four times faster to market, given the saved engineering time, plus deployment and dev ops cycles, QA and load testing. All in all, ScienceOps saves us around \$350,000 per year in engineering costs,” concludes Mark

“Now we’re able to expose our models to third party applications totally independently so that other services and applications can access our predictions and leverage our science!”

TENDRIL®

Tendril is defining data-driven Energy Services Management (ESM) for the evolving energy market. Tendril's open, cloud-based software platform provides the infrastructure, analytics and understanding required to deliver personalized energy services.

www.tendrilinc.com

yhat

Yhat (pronounced Y-hat) provides an end-to-end data science platform for developing, deploying, and managing real-time decision APIs.

Yhat eliminates painful IT obstacles involved in cloud-based data science like server setup and config. With Yhat, data scientists can transform static insights into production-ready decision making APIs that integrate seamlessly with any customer- or employee-facing app.

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