CASE STUDY

GRIDMOBILITY™

GridMobility (www.gridmobility.com) has developed patent-pending technology that reports electricity generation sources in real-time, enabling consumers to actively manage their power consumption. The deployment of the GridMobility suite of technologies results in improved utilization and reliability of existing grid assets, lower electricity bills, and fosters additional renewable resource development. GridMobility uses WebORB for .NET and WebORB for Java to develop and power the rich internet application used in its hardware and systems control user interface (UI).

GridMobility

Founded: 2009

Structure: Private

Principles:
James Holbery,PhD, President/Founder
Fred Barrett, VP of Operations & Deployment

Location: Kirkland, WA

Software:
Energy Monitoring and Management

Industry:
Renewable Energy

Business Need:
Needed a low-cost and effective way to quickly integrate Flex client with .NET and Java

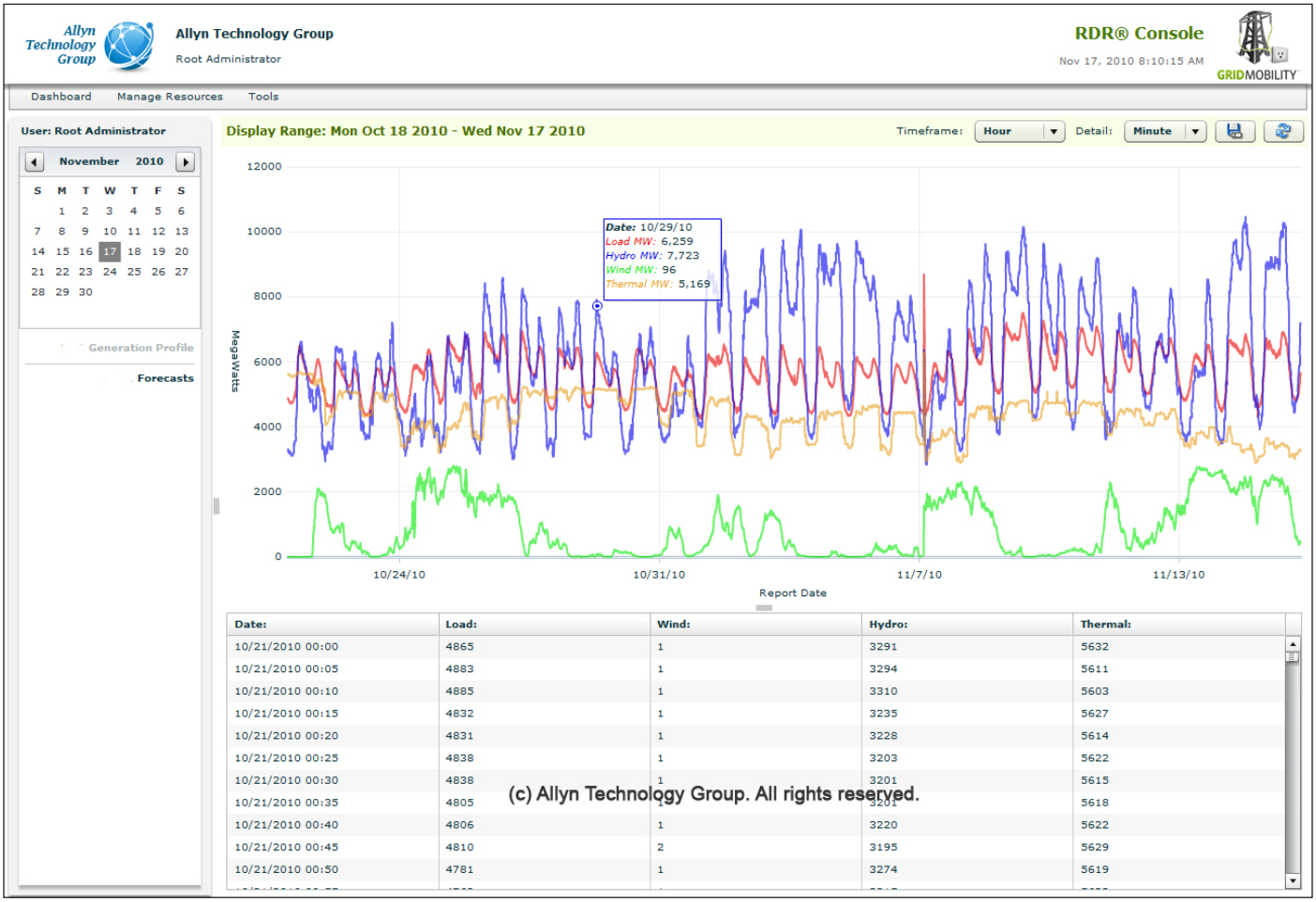
IT Issues:
Tried Silverlight and WCF and CodeSmith Tools, but they took far longer to develop with and had higher development overhead to implement.

Technologies Used:
WebORB for .NET
WebORB for Java
Adobe Flex
Windows 2008-based platforms

Business Situation

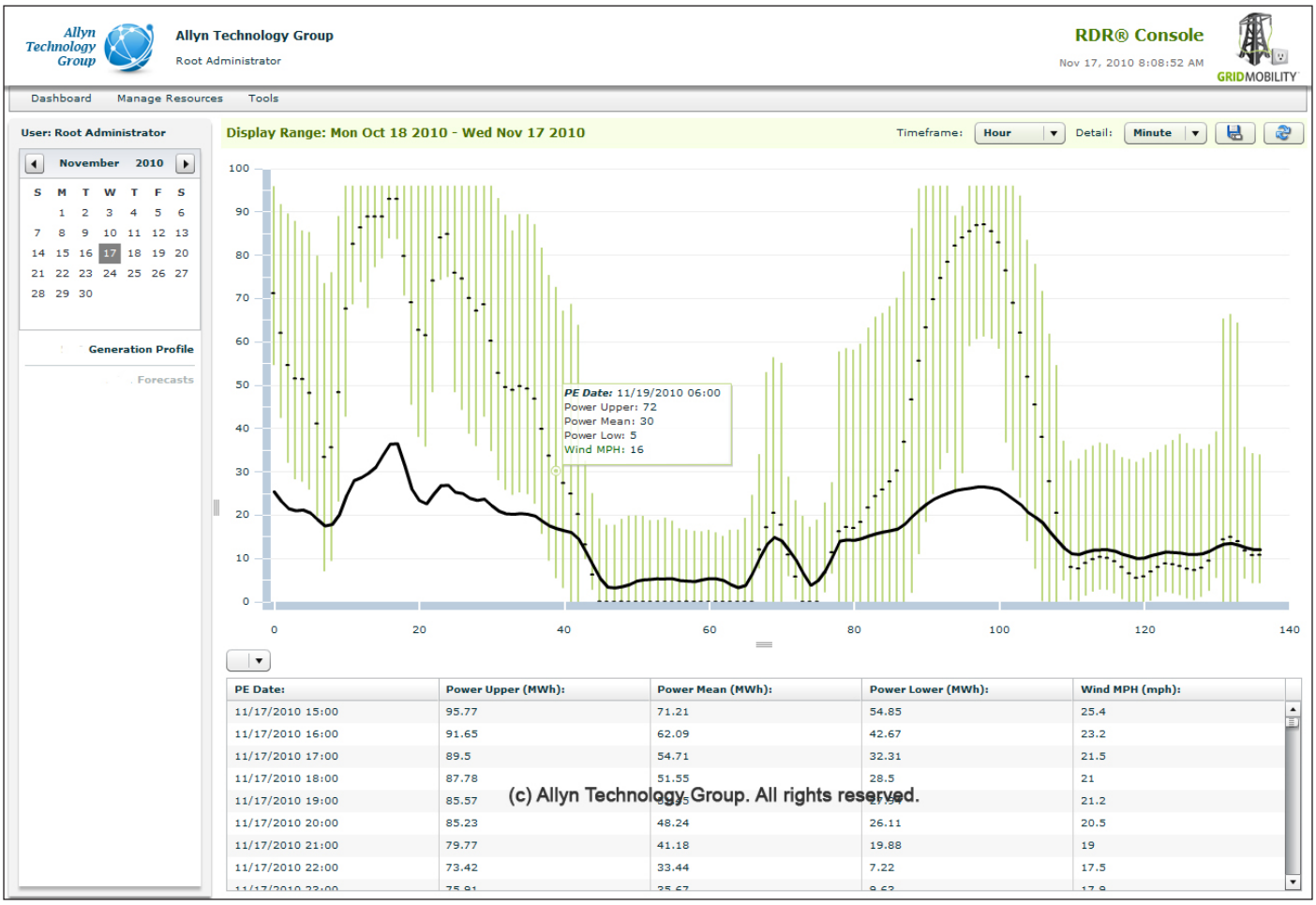
The renewable energy industry grapples with how to manage energy consumption using smart meters cost effectively, while consumers buy additional smart devices to better understand and reduce their consumption. Both approaches are costly and inefficient, which is why GridMobility expects to fundamentally change the power market through the delivery of its intelligent and adaptive solutions. This solution will enable energy customers for the first time to personalize their energy use for less costly consumption.

Application Description



GridMobility's application is a combination of hardware and software that is used by utilities, RTO's, ISO's Commercial Industrial and Consumers. Its product suite includes:

- *Real-time Electricity Generation Source Aggregation. Patent-pending technology to collect, analyze, and signal real-time electron sources on an electrical grid.*
- *Real-time Renewable Demand Response (RDR)®. RDR®, an alternative to time-of-use (TOU) DR driving signals, enables electricity consumption based on renewable energy content and is supported by GridMobility modeling, implementation and reporting products.*
- *Operations Deployment/Implementation Modeling Tool Suite. Utilizing proprietary deployment algorithms, scalable system modeling is achieved for renewable demand response (RDR) and real-time generation signal deployment scenarios.*



Problem Definition

According to Fred Barrett, VP of Operations and Deployment, “We had a very aggressive timeframe and needed to meet a four-month target for first-customer login and use of basic functionality. We tried Silverlight and WCF on a previous project, but that took 40 percent longer to develop than similar projects we built using Flex and WebORB. We also tried CodeSmithTools with some success, but these did not help accelerate the development process.”

Solution

Barrett and his team had worked with WebORB on previous projects and returned to WebORB for this project upon hearing of the new feature enhancements built into WebORB for Java and WebORB for .NET version 4.x products. The features that prompted Barrett to choose WebORB included data compression between client and server, data management, code generation, invocation test drive and the ability to scale. The data management features alone, according to Barrett, “saved us over $500,000 in development and five months time-to-market. In fact, 80 percent of the UI data layer was constructed using the data management features in WebORB 4.”

Barrett anticipates that they will use the data management capabilities to help bridge both .NET and Java server architectures so his company can deliver its UI in a platform-independent manner.

In addition to using WebORB, Barrett contracted Midnight Coders professional services organization to create a best practices project template and security guidance for GridMobilities project. Barrett's team has relied on Midnight Coders to help guide their development effort during the initial development phases. Barrett states, "After having worked with a number of different professional services groups, Midnight Coders' team has repeatedly exceeded our expectations in the speed at which they are able to deliver solutions, and perhaps more importantly in their ability to deliver a code base that can easily be picked up from the hand-off point and then run with by our own team. The code was easy to understand, and the structure is easy to scale. I not only highly recommend their services, I will be using them over and over again moving forward."

Major Benefits

- *This is a summary of the benefits GridMobility has experienced thus far using WebORB.*
- *Decreased Development Time — GridMobility was on a tight schedule to deliver it's first functional application and has since gone on to build in more functionality for the production release. They've calculated that WebORB productivity tools has saved them about 5 months of development time.*
- *Massive Savings in Development Cost — GridMobility calculated what it would have cost them to develop their solution without WebORB and realized that all of the developer productivity tools like data management, code generation, invocation test drive, etc. will in the end save them about $500,000.*
- *Scalable Technology — GridMobility needs to support both .NET and Java environments and with WebORB they can, without having to do a complete re-write of their applications.*
- *Reliable Development Partner — GridMobility has contracted Midnight Coders for professional services a couple of times and has found great benefit in being able to go to Midnight Coders for that expertise they just don't have in house.*

