



Global coverage of the business intelligence ecosystem

## Understanding Your Data: A Fundamental Requirement

By Ron Powell

**This article is based on a podcast Ron Powell conducted with Patrick Dever, Chief Data Strategist at Avista, where he is responsible for Avista's enterprise-wide data and information strategies. Ron is an independent analyst and industry expert for the BeyeNetwork and executive producer of The World Transformed Fast Forward Series. His focus is on business intelligence, analytics, big data and data warehousing.**

**Avista is an electric and gas utility provider in the Pacific Northwest. Can you tell us more about the company and the markets it serves as well as your role within the organization?**

**Patrick Dever:** Avista is an electric and gas utility serving customers in eastern Washington, northern Idaho and Oregon. Our gas services are provided in all three states, and our electric services are provided in Washington and northern Idaho. We serve about 500,000 customers.

My role at Avista is to utilize data to improve the business offerings and services that we can provide to our customers through operational efficiencies and new products and services.

**The energy and utility markets are pretty dynamic today, aren't they?**

**Patrick Dever:** Yes, our industry is changing quickly with distributed generation, renewable assets and individuals that want to be disconnected from the grid. There is so much change in our industry today. You might equate it to the telco industry when cellular phones came out. You know the disruption that happened then, and we're experiencing similar effects. But, when you think about distributed generation in the form of solar or wind or other yet-to-be-defined generation capabilities, you could potentially see the electric load on the distribution grid changing.

**What types of data do you collect, and how is that data used to support the business today?**

**Patrick Dever:** We focus on providing safe and reliable service to our customers with products and services that provides them better energy for life. Data regarding the usage of our products in the form of gas and electric that we deliver to our customers is very important and gives us the ability to inform our customers on how they can use our products more effectively and efficiently. We also have data about our operations on how we maintain and service our assets in the form of hydro assets in dams or

gas-fired turbine power plants. All of this data becomes very important to the operation of the company which, in turn, allows us to provide safe and reliable services for our customers at a reasonable price.

### **Are you able to use all of the data you collect? If not, what's holding you back?**

**Patrick Dever:** Today we are able to use the majority of the data we collect. For example, all of the customer data we collect is key to us understanding our customers and providing them with options. Currently we collect our Washington customer's usage information once a month. Although those data points are valuable, they don't give us the granularity that we will have as we move away from the analog, monthly read meter data to the new digital Advanced Metering Infrastructure (AMI) meters. With AMI meters, we have better information to help our customers understand their usage so they can budget their usage accordingly.

In addition to the customer data, we have operational data from our power plants. In our mix of resources, we are about 51 percent hydro – meaning these are dams that are generating the power. So we're a very green utility. The rest of our generation is through gas-fired turbines and bio-mass plants. The data from those plants – the operational characteristics, the Supervisory Control and Data Acquisition (SCADA) data – is critical to the proper care and feeding of an these assets and the lifecycle management for those plants.

As we move beyond the generation plants out to the distribution network, you have poles, wires, and transformers that all have age characteristics and manufacturing recommendations on maintenance and the lifecycle for the asset. That information is also used to help us efficiently manage those assets to ultimately deliver safe and reliable power to our customers.

### **What is your vision for making all of your data available for your analysts?**

**Patrick Dever:** We believe that accessibility to data is a fundamental requirement in order to begin to treat data as an asset. If you're going to treat data as an asset, then you must understand what data you have. For example, you may have a customer information system, or work and asset management system or an accounting system or an HR system. Fundamentally, you know that you have data on your employees, or data on your customers, but do you really know everything about this data? When you begin to look at data as an asset, you need to get more granular. Today our strategy is to use Alation. That tool allows us to crawl data sources and return the metadata of the data source. That metadata contains information about the data. For example, it provides the table names, the column names, and it provides sample data back. It shows you the usage of that data by other systems and/or users. It provides you with characteristics about the data. It gives the analysts a much better understanding of the data that they are trying to use.

### **From a data culture perspective, have there been changes in people and processes to support your vision?**

**Patrick Dever:** Yes. The number one challenge in this effort around democratization of data is change management. Change management is a big deal. When you have done things the same way for years

and all of a sudden new ways of doing these things are introduced using data, it can be challenging. We spend a lot of time educating people on the data, listening to their perspectives, but also sharing what the data is telling us. Change management is a really big deal and it's not something you can expect to happen overnight. We have people that want to challenge the data, and in some cases the data could be wrong if it's not complete or if it's not accurate in how it's captured. The focus on data governance becomes very important to insure that the business is collecting the data in a timely fashion at the level of completeness that is required to really deliver the value and answer their questions.

**Is there a collaboration component that is helping with this change management need within your organization?**

**Patrick Dever:** My team is responsible not only strategically for data, but also for increasing the usage and driving self-service data throughout the organization. As part of this program to bring in Alation, we have implemented a strategy to curate information about each data source in a very structured way. I like to say we're not going to boil the ocean. We're going to be collaborative with the business. We're going to engage the business. As we curate each data source, we're going to bring those analysts in, educate them on the capabilities of the platform, educate them on the importance of data governance, identify those data owners and data stewards in a more formal role, empowering them to use the tool – Alation – to either identify data that they need or identify data that is missing that needs to be collected differently.

**With regard to your data technology stack, what else is part of the stack?**

**Patrick Dever:** We use technologies that include Cognos, Tableau, Alteryx, SAS and Trove. TROVE is our big data platform that uses open source technology to allow for big data processing. We use Alation to expose the data and then use the other tools – whether it's Cognos, Tableau, Alteryx or SAS – to give the analysts self-serve tools to actually go and get the data and do the analysis. Overall, our strategy is to provide self-service to business users.

**From an enterprise-wide perspective, the self-service capabilities are provided by this entire data stack with Alation pulling it all together from a visibility perspective. Is that what is driving your vision?**

**Patrick Dever:** Yes, I see Alation as the core. Data is an asset that has value — and Alation exposes that asset so you can see it, feel it and touch it. It becomes real. That's really the value that I see.

**Where do you see Alation providing value to your business going forward?**

**Patrick Dever:** I see the Alation tool as critically important to allow business users to understand data, identify data and share information. One of the most powerful benefits of Alation is that it is a platform that allows for exchange of information openly. It allows for you and I to contribute and share information. As analysts use this platform – whether they're sharing SQL code that they've developed and making it available to every other analyst in the business or if they've written an article to share information about something they understand because they are the subject-matter expert – all of this is

fully searchable and easily accessible through the Alation platform. The key is that democratizing data is important. Today in most organizations, data sits in the technology group and is very difficult to gain access to. I think the statistics show that analysts typically spend 75 to 80 percent of their time collecting data and 20 to 25 percent of their time analyzing data. Alation allows the analysts to quickly find the data and now spend 80 percent of their time doing analysis on the data.

**That sounds terrific. Pat, I want to thank you for discussing with us how Avista has created a unique data-driven enterprise to meet the needs of all your customers in the Pacific Northwest.**