

How the largest energy provider in the US delivers **RUN-RATE SAVINGS VIA IT OPTIMIZATION**

An Exelon case study

Executive summary

As Exelon has grown in size and scope to become a Fortune 100 company with the largest number of utility customers in the U.S., its IT organization has had to keep pace. Adopting TBM principles and deploying Apptio has allowed corporate IT to deliver over \$150M in run-rate savings by 2018. Exelon IT has used cost transparency to reorganize and retool into a shared services organization serving the company's nationwide network of utilities with backbone IT services and technologies at a substantially reduced cost.

Exelon corporate overview

Headquartered in Chicago, Exelon does business in 48 states, the District of Columbia, and Canada. The company delivers electricity and gas to approximately 10 million customers in Delaware, the District of Columbia, Illinois, Maryland, New Jersey, and Pennsylvania through its Atlantic City Electric, BGE, ComEd, Delmarva Power, PECO, and Pepco subsidiaries. Exelon is one of the largest competitive U.S. power generators, with more than 35,500 megawatts of nuclear, gas, wind, solar, and hydroelectric generating capacity, and its Constellation business unit provides energy products and services to approximately 2.2 million residential, public sector, and business customers, including more than two-thirds of the Fortune 100.



Industry // **Energy**

Revenue // **\$31.4B**

Employees // **34,396**

TBM solutions

- Apptio® Cost Transparency
- Apptio® IT Planning

Benefits

- \$100M in operations and maintenance (O&M) year-over-year run-rate cost reduction by 2018; \$50M in project rationalization savings
- 98% of servers mapped to consuming applications and services
- 90% of storage mapped to consuming applications and services
- Using Apptio to optimize cloud spending and track consumption

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"This is a really, really diverse organization. We are in so many different businesses, it is absolutely critical for us to have our arms around the services we're providing the business and to organize our assets so that our costs are transparent ... that kind of information is so transformational."

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Jeff Coleman, Senior Manager,
Enterprise Architecture

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As is often the case with large, Fortune 100 companies, Exelon grew through a series of large and small acquisitions, as well as organic growth. As a result, the IT assets and services portfolio has become an ever more complicated ecosystem to optimize and manage.

The way many large companies deal with these transitions is to budget a percentage of the company's gross revenues to the IT department, with the expectation that the spending will produce the results the company is looking to achieve.

"We had a strong imperative to optimize following the merger that occurred in 2012 between Constellation and Exelon—two Fortune 150 energy providers that have now combined to be a Fortune 100 company, with six utilities across the United States and one of the largest and cleanest fleets of power plants," said Jeff Coleman, Senior Manager of Enterprise Architecture.

Not coincidentally, 2012 was also the year the company fully embraced TBM-style principles in the form of application portfolio management (APM) and brought on Apptio to optimize IT delivery and costs of the combined organization.

"Both companies were working to capture information around their assets, applications, and services," said Rick Crowley, Senior Manager, IT Finance. "But before TBM, cost savings in IT came in the form of percentage reductions applied to one or more teams—before there was a plan in place for saving that money, projects dedicated to recovering the costs, or an assessment of the potential risk to the business from removing those costs. You got the imperative to 'Just do it.'"

"So when this merger occurred, there was a deep recognition that the two companies had to be managed in a consistent way in order to get the synergies that our investors were expecting. We were going to have to organize ourselves in ways that could be matched up across the acquired companies. So our innovation group at that time did a lot of research and looked at Apptio as a cornerstone technology for financial and business management.

"You can think of it as a 'big data' approach to combining all this information, allowing us to take actions around important things like cost optimizations, application rationalization, financial management, understanding our total cost of ownership across the organization ... all these transformational things."

Recovering server costs

One of the early wins of this effort was mapping applications to servers so Exelon IT could fully recover the costs of running them.

"I remember very specifically when we were really firing up what is now our current-day APM effort," said Nate Bender, manager of Exelon's APM Office. "This is after we had brought in Apptio. We knew we had about 10,000 servers in the company, but it was the responsibility of each team to record what those servers were doing in our asset management system.

"When we did the work in 2015 of linking up our corporate financials with our IT portfolios and with the services the business sees, it actually opened the door for us to start charging these services directly to the applications and, therefore, the specific functional areas that consumed them. When we did that, we were able to change the conversation from 'why has this business unit's consumption of a specific class of server increased?' to 'is this the optimal configuration for this application?'"

The integration of Apptio data into Exelon's Hyperion business finance system allowed IT to show the business units the all-in IT costs on a business function basis. When this bill landed on the desks of the vice presidents in charge of those costs, they took notice.

"When we first started, not all of our servers were identified, in terms of what they were actually being used for," said Bender. "We knew who had originally paid for them, so we were able to bill things back to the right departments, but information was missing. Basically, you knew what each department was paying for, but the bill wasn't framed in terms that a non-IT person could readily understand. Making the application the subject of the conversation with the business, rather than the underlying hardware, provided a strong incentive to map hardware to applications.

"Before the Hyperion alignment, we didn't have a way of charging our corporate groups in a direct fashion, so each service was treated independently. For example, a Unix server running a database cluster was recovered as a Unix server, instead of through the price of databases. We now have a bill-back model in which services are billed to other services, so that even the hardware that's used to deliver the rest of the infrastructures services is part of the cost of the delivery of those services. Once that alignment between apps, services, and business functions was reflected in the financial system, we could track specific decisions to specific costs."

The net result of this initiative, called the *IT Financial Conversion*, is that IT has successfully mapped 98 percent of its servers and 90 percent of the storage (up from 40 percent) to the applications they support. This transparency into who is consuming what services and in what quantities has allowed IT to become a shared services organization, complete with chargeback and monthly scorecards to keep track of where the money is going and how well everyone is performing.

"We are the largest utility by customer count in the country," said Bender. "As a result of the work that we were doing in unifying our portfolios with our services with our financials in 2015, last year our utility IT organization was able to reorganize their entire reporting structure, from the VPs on down, behind their portfolios. Now the entire back-end IT organization is run as one unit for all of the utilities. I think that's a fairly unique achievement. Nobody's ever done anything like that with a utility organization on this scale."

Cutting through the maze

Another program underway is rationalizing IT's managed services contractors. With \$31.4 billion in revenue, Exelon consumes a lot of outside services. Tracking multitudes of contractors is tough work so the company reduced that number to just three tier-one managed service contractors. The total savings to date is \$24 million, but they are just getting started.

"Another program that we have is something called the Strategic Partnering Program," said Crowley. "We have simplified our tier-one managed service contractors into three big contracts. All of the buildup and the negotiation of those contracts was heavily reliant upon the data that we were able to generate about our applications and our labor within Apptio. There's multiple phases but it's over \$100 million of pre-tax O&M [operations and maintenance] savings over the five-year contract term."

Accounting for cloud

Cloud is another area of outsourcing where Apptio has helped Exelon organize and manage its consumption. Even though Exelon relies on one cloud provider exclusively, understanding the monthly statement can be like translating Hieroglyphics.

"It is one of the more innovative things I think we have been able to do with Apptio," said Bender. "Not long after the first few applications were migrated to the cloud, we were approached by our Cloud and Infrastructure (C&I) group. They said, 'We think this is going to grow by leaps and bounds. You are already handling all of our cost recovery, is there something you can do for us? Because we see this quickly becoming unmanageable.'"

Why unmanageable? Because their monthly bill was 70,000 rows—not human-friendly stuff.

"We figured out that Apptio would actually be perfect for processing the cloud bill," continued Bender. "So what we are actually doing is getting in the raw bill from Microsoft, running it through a number of business rules, and then telling the vendor exactly how to split all of their charges between different contract releases. Now we can tie together what the vendor is doing into our entire framework of applications and portfolios. We have this seamless end-to-end process."

The upside of this effort, given their monthly bill is still relatively small, is cost transparency. And, as cloud continues to grow in adoption, understanding these billing statements will also grow in importance.

"Today, we are looking at moving to remote data centers, infrastructure-as-a-service, which is not something that we use right now," said Bender. "So one of the big questions on everybody's mind is what the exact set of decision criteria should be for, say, going on-premises versus cloud."

"This is the kind of problem that we are going to be tackling very directly now that we have the data appearing right in the Apptio model, right next to everybody's on-premises data, and we are actually able to get a true A/B, scientific study done on this."

According to Brian Capoferri, Senior Manager, Portfolio Operations, the question they need to answer is, "What is that perfect blend of cloud-based storage, versus data center as a service, versus on-premises? What is that perfect blend that provides optimal return? That's the sort of thing we are getting involved in now, in terms of the financial analysis and decision making, to ensure that we are getting the biggest bang for our buck."

Cost optimization provides new levers for reducing spend

A third program underway is aimed at improving understanding of the O&M financial tails of capital projects. In its third year, the program is expected to return \$100 million to the company's bottom line by the end of 2018.

"We are always working to better understand how projects increase our recurring expenses over the years," said Capoferri. "We've had a program called Cost Optimization that has been running for a few years now. The data from this program and portfolio management and TBM has provided us a set of levers portfolio owners can throw in order to meet those cost optimization challenges and reduce our O&M spend."

"We also don't want to have to do this every five or 10 years. We manage our portfolios and our services now so that as new things come in, old things go out. And we just don't have the tail that creeps up and causes you to have to take those measures."

From cost center to change leader

The savings and the IT portfolio rationalization and reorganization have been very important for Exelon IT. But perhaps the biggest and most significant change brought about by TBM and Apptio is the transformation away from a cost center to a change leader.

"It doesn't begin and end with Apptio," Bender said. "But Apptio sits at the center of a whole group of systems that we run out of the same team, that allow us to track IT data, not just financial, but operational, security, architectural, compliance ... so it is all tracked centrally and then it all informs our financial model."

"When we first started, nobody would have tolerated us putting out a scorecard by which they're judged based on the data that we had. Now the data in our systems is the standard for how IT is measured."



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