

COX ENTERPRISES

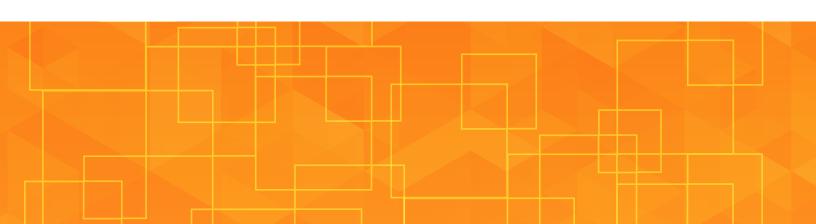


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Technology Business Management (TBM)

is a methodology, community and category of software for datadriven management of the business of IT.





Cox Enterprises and Cox Automotive

TBM @ Cox Enterprises

Cox Enterprises is a group of privately-held companies that have all independently chosen to adopt TBM. Each runs its own TBM systems that interconnect using cost model standards to opportunities for group efficiencies as well as inter-company benchmarking to learn from each other. To help the business avoid later surprises and ensure IT is adequately funded, Cox Enterprises infuses its project funding process with a review of expected five-year run costs based on its service cost model. In its own TBM program, Cox Automotive uses its standard cost model to quickly see how to best integrate technology of companies it acquires, identify opportunities for consolidation such as labor contracts and communications carriers and manage its consumption of public cloud services.

Program Owner	GovernanceArchitecture			
Related Initiatives	M&A Public Cloud Strategy Vendor Consolidation Shared Services Transformation			
TBM Solutions	Cost Transparency Application & Infrastructure Insights Bill of IT			
Areas of Analysis	 Projects Vendor Cloud Storage Network 			
Insight	Well below peer benchmark in FTEs per server 150 different contingent labor contracts Business sees estimated annual infrastructure and support chargebacks for software projects			
Outcomes	Moved 60% of back-office workloads to public cloud Rationalized 150 contingent labor contracts to 5 key managed services partners Project funding decisions by the business include ongoing run costs Made business case for hiring 3 FTEs in IT operations Integrated acquired company's tech costs in 3 days Consolidated communications carriers to save hundreds of thousands of dollars per year			



Cox Enterprises Corporate Overview

Cox Enterprises is a privately-held conglomerate of companies operating under 3 major brands: Cox Automotive (including Autotrader, Manheim, Kelly Blue Book), Cox Communications (including Cox Cable) and Cox Media, (various Newspapers, Radio, TV properties).

Industry	Communications & Media
Headquarters	Atlanta, GA
Revenue	\$17.1B
Employees	50,000

How Cox Plans and Optimizes Technology Across Companies with a Standard Cost & KPI Model

Driving Choice and Value Conversations Through Services

As Cox Enterprises began consolidating and operating more technology capabilities for its subsidiaries Cox Automotive, Cox Media and Cox Cable, its corporate expenses naturally began to rise. The CFO determined that to control costs, Cox Enterprises would charge expenses back to the various business units in its subsidiaries while providing cost transparency to enlist them in decision-making on how they would use shared resources.

Lisa Stalter, senior director of IT planning and governance at Cox Enterprises, remembers that first step toward transparency. "We had to pull something together quickly, and we didn't have systems and processes in place," she recalled. "We introduced some very high level service catalog taxonomy, and some very high level cost allocations."

For example, costs were reported as large lump sums for line items such as "applications," "servers" and "help desk". These costs were apportioned to business units based on methods like headcount which, while easy to maintain, had no relationship to what actually drove costs or choices the business could make. "That initial transparency raised more questions, like 'Which applications are you supporting for me?' and 'What do each of those cost?," Stalter remembers.

To accelerate their transformation into a service provider, Stalter brought in Apptio to provide cost transparency at a more granular level and link charges to consumption. She started the TBM journey with a view into the Total Cost of Ownership (TCO) of each application service and the costs driven by technical services supporting each application. Chargebacks were now based on this granular view, which allowed each business to see what applications it was being charged for and what drivers comprised those charges. "We went from clumsy conversations about whether we had the right numbers to value conversations about what services they needed and which they didn't. In some cases they'd see how much it was costing to run an application and say, 'I didn't realize it was costing so much to run, let's turn that one off."

Around this same time, Cox Automotive was pursuing its own services transformation with TBM. Mark Satterfield, vice president of delivery, operations, risk, and security, was among Apptio's early customers and TBM practitioners at Hilton, in 2010. Then he brought Apptio into Equifax. When Satterfield was brought into Cox Automotive to help drive a services transformation, he already had an approach in mind. "When architects plan a building they need multiple blueprints (e.g. engineering,



mechanical, civil). We also needed different blueprints, different lenses, for how we organized, how we designed, how we deployed and how we delivered services. TBM and Apptio are like a 3D rendering of the building where everything comes together."

Within Cox Automotive, business leaders began to better understand what they were getting from the shared services organization, which for Satterfield meant "being able to have a business conversation, rather than a technical conversation where your customer is Googling the acronyms you're using to try and understand you." It also meant giving business owners information about the cost of different options so they could assess for themselves if the value to them is worth the cost. "If they have no idea what it costs, business owners naturally stick with the technologies they know. Now they can see the cost of different service options, for example, what their non-standard e-mail system will cost them versus how much they'd save by switching to the shared service from corporate."

Running Technology Like a Business: Planning Projects as Services

Delivering business innovation is in the DNA within Cox' technology organizations, but Stalter has learned that funding lots of innovation projects can be a double-edged sword. "The consequence of only talking about 'change the business' is that you take your eye off of what's needed to run the business." she observes.

Many companies without modern IT cost transparency and planning capabilities find that their cost base grows back quickly after being cut, like a weed that's been cut rather than pulled. Often it is because their infrastructure organizations are struggling to keep up with operational demand that hasn't been planned for, or funded. Part of what creates this unfunded mandate on I&O is that those who create the operational demand don't know they're doing it.

"When it came to project planning the business knew their up-front CapEx investment, but not the long tail of OpEx the project would generate," Stalter remembers. "They were looking at return on capital, but couldn't see the run costs to really assess profitability."

To drive better balance between business demand and operational supply, Stalter has instituted a service-based approach to planning. Every year the Cox companies come together to refresh their five-year plan in which project approval, scoping and funding decisions incorporate estimates for their impact on total expected service cost. For starters, business owners are already familiar with the pattern of projects creating run costs because they see it in their chargebacks as well as during the planning process. Because project managers map projects to applications they are associated with, application service cost reports are able to include year-over-year impact of projects on each application's operational cost drivers such as support, disaster recovery, compute, storage and depreciation.

In addition to looking back at historical data, Stalter's TBM office helps the business see forward with projections on expected multi-year operational costs. Rather than require project owners or infrastructure teams to figure out volumes of the various service components needed for a project, the TBM office uses the historical actuals to come up with straightforward weighting factors of planned infrastructure capital to ongoing operational cost.

Stalter says that this holistic, service-oriented project planning "takes away some of the wish-listing that we might have had historically. It really focuses the business on what they need to have, versus what they might want to have."

Stalter's service-oriented project planning process also relieves pressure on the cost base by addressing the companion problem to unfunded mandates, what some IT leaders refer to as the "roach motel" problem: applications check in but they don't check out. By reviewing the costs of the



existing application portfolio, business and application owners include changes to the portfolio in their planning, whether it's to decommission older applications to free up more project funding (as they frequently do) or invest in updating or migrating. After seeing the rising cost of incidents, one application team factored moving onto a new platform into its plan.

As the shared services arm, the Cox Enterprises TBM program runs a process that brings together the independent technology organizations from the three Cox companies to gain an aggregate view of their combined expected requirements, and then strategize what demand could be most effectively fulfilled through shared services and what is best resourced within the subsidiary. This long range view of combined demand helps all four technology organizations right-size contracts with vendors, time their purchases and improve budget and forecast accuracy.

Cox Automotive also uses Apptio for its own planning. Combining Web properties like AutoTrader.com and software providers like DealerTrack, Cox Automotive is essentially a technology business, fueled by a mixture of business strategy and acquisitions that is sparked with innovative software development. Ed Smith, CTO for Cox Automotive sees the link between investment planning and long-term costs as key to executing his technology business strategy. "Our strategy is to change the way the world buys, sells and owns vehicles," states Smith. "The industry is changing at a tremendous pace and we're meeting those demands through acquisition and really creative engineering solutions. That requires a significant investment in technology. Apptio and our TBM discipline helps us manage investment and shape demand consistent with our long-range plans."

One of the ways Smith and his team shape demand is with a monthly view to bring predictability into how investment and operational spending come together. "The decision to bring Apptio into Cox Automotive was ultimately mine. I was sitting with the CFO, looking at the technology spend of AutoTrader and Kelly [Blue Book], and I could see we'd need better insight into the cost of all the things we were doing in order to really leverage acquisitions and grow this business. I couldn't chase people at the end of every month to make sure that the numbers fit. The transparency we've put in place with Apptio allows me and the CFO to have a lot more confidence in the numbers. So that's actually been a big success, and I'm happy that we invested ahead of the curve on TBM because we've grown faster than we expected."

Autonomy and Collaboration: Four Models, One ATUM

The use of Apptio and adoption of TBM were not mandated by Cox Enterprises. Far from it, according to Stalter. "We're very autonomous. We don't collaborate if we don't need to, because we want to focus on each of our individual businesses."

Cox Automotive had brought in TBM veteran Satterfield, so no selling was necessary there. Stalter did champion the TBM approach to both Cox Cable and Cox Communications, who each independently decided to bring in Apptio for the benefit it could bring to them. On top of those independent benefits would be collective benefits, including an aggregate view of spend for more purchasing power with vendors, and inter-company cost benchmarking to learn where to be more efficient.

Since all four entities were using Apptio, they would be able to connect their cost models – technically – but they didn't all speak the same cost language. Each belonged to a company with its own unique general ledgers, with its own accounting structures and conventions. Each had different ways of organizing IT, different mixes of technology, different methods for delivery and support to very different businesses. And each had its own way of composing and calculating costs.

"When I started, and TBM was brand new, everyone would make up their own IT towers in Apptio," recalls Hollie Potts, TBM manager for Cox Enterprises. "Apptio is very powerful, so you could do just about anything you wanted. But when you're building out a model it's hard to decide sometimes where some pieces of IT cost fit."



The TBM Council endorsed the new ATUM (Apptio TBM Unified Model) taxonomy in Fall 2013. By early 2014, all four Cox technology organizations decided to standardize on ATUM. Cox Media and Cox Cable had later starts so reworking the model wasn't a factor. Stalter and Satterfield had invested fully custom models but decided that, in addition to the benefits of aligning to the same taxonomy, each would ultimately benefit from spending less time maintaining their own custom version of the Apptio Cost Transparency Foundation model. "Our services are different," Stalter admits, "but the building blocks underneath them really aren't. There's really nothing valuable or strategic about defining towers and cost pools a different way."

Potts says that ATUM has helped her normalize cost data between the models by being prescriptive. "ATUM gives you the categories and it gives you the underlying allocations and data infrastructure to compile different costs in a more standardized way. It's more than just a language, it's a methodology. You don't have to guess where pieces should go because ATUM tells you where they go."

Today all four models are using ATUM and sharing data into one uber-model maintained by Potts. "We don't have a lot of reconciliation between the four because the reconciliation has already been done by ATUM," she explains.

The companies are beginning to better leverage their collective advantage. "We do internal benchmarking now," Satterfield says. "We can compare and contrast, which leads to conversations about what we might be doing differently from the other in a particular sub-tower or with a particular vendor.' So together as a Cox family of companies, using a standard model really does help us gain efficiencies, really work the model."

Accelerating Acquisition Synergy

To accelerate its strategy to change the way people buy, own and sell their cars, Cox Automotive has developed a corporate competency around acquiring and integrating companies. TBM is a core part of this strategy.

Over the past several years, Cox Automotive has acquired over a dozen companies to assemble an enviable collection of brands including AutoTrader, vAuto, DealerTrack, HomeNet, Kelley BlueBook and Manheim. The company's recent \$4B acquisition of DealerTrack is expected to put Cox Automotive in the range of \$8B in revenue. This rapid growth also means more diversity and complexity, with business models ranging from digital marketplace platform (AutoTrader.com) to SaaS solutions for dealers (DealerTrack) to wholesaler and auctioneer with inventory (Manheim). Business units have grown from 8 to 23 and employees from 3,500 to more than 24,000.

Two common threads running through all these businesses give Cox Automotive tremendous potential for innovation and market advantage: cars, and technology. As CTO, Ed Smith and his team count on Apptio to provide the instrumentation needed to simplify, control and steer the complex subsystems as one digital business.

"If you look at NASCAR and see how fast but also how precise those pit crew teams work, I feel a lot of times that's how our engineering teams are," Smith explains. "We're constantly under pressure to make really good decisions, really fast. Before Apptio we spent most of our time around key decisions just trying to find and pull together data. Today TBM is integrated in line with our rhythms for operating the business."

Analytics provide decision-makers with point-and-click access to costs, resources and Key Performance Indicators (KPI) from many different perspectives. Vertical views can show an individual brand with drill-downs and pivots through its business units, applications, underlying towers that drive cost like application support and storage, down to individual server assets. Horizontal views cut through all the brands and business units as a single service portfolio with the ability to slice through



portfolios of applications, towers like application development or storage, or by managed service provider or other vendor.

"I can see each underlying business in Apptio as well as how their pieces fit together to make up Cox Automotive," continued Smith. "They're all integrated into the same ATUM model, so the way we make decisions about applications or network or storage is the same at Kelley Blue Book as it is at AutoTrader.com. I've got all the data, so I can spend more time thinking about the important things."

The time required from acquisition to integrated operational view is also accelerated by ATUM and the TBM skills developed within the TBM Office and across Cox Automotive. "When we added Manheim to the AutoTrader group of companies to form Cox Automotive, the hardest part of integrating financial models was learning the structure of an unfamiliar general ledger," explained Satterfield. "After that, ATUM had already given us an industry-standard set of categories and compositions, and we already knew how to use Apptio to map GL cost centers and accounts into the ATUM model. This used to be something we'd need outside consultants to come in and do, but we were able to onboard millions of dollars in spend and normalize it into our unified model in just 72 hours."

"We had planned on months of work to integrate Manheim into our overall operating model," says Smith. "The TBM team, with Apptio, put it together in just a few days. It gave us a consolidated view so we could start comparing and finding opportunities to better leverage our spend. It was a huge win. We expect Apptio to really accelerate our ability to integrate our [pending \$4 billion] DealterTrack acquisition."

Smith adds, "TBM is a necessary business competency for our strategy. The automotive industry is changing tremendously. We are going to wind up acquiring companies and we're going to have things that don't necessarily fit together naturally on their own. So one of the underlying capabilities that you have to be really good at is how you manage your technology spend to build and integrate products the right way."

Managing Public and Private Cloud Mix

Formula One, Indy and NASCAR racer Mario Andretti once said, "It is amazing how many drivers, even at the Formula One Level, think that brakes are for slowing the car down." An over-simplified translation: "brakes are another control to help you go faster."

Instrumenting the cost of different forms of cloud as well as traditional delivery models helps Cox Automotive accelerate and steer through its adoption of public cloud. "The great thing about public cloud is how quickly people can spin things up," Satterfield says. "That can also be a problem because usage can get away from you. We need to see how much we're spending on what cloud services, in which parts of the business, where it's for development or testing or production. So we wired Apptio into our private cloud and public clouds."

Autotrader uses Apptio Cost Transparency's cloud adapters to download invoices directly from providers like Amazon Web Services (AWS) and Microsoft Azure. The adapters translate tens or even hundreds of thousands of charge line items into recognizable products from cloud providers that fit categories in the ATUM model so customers can compare apples to apples both internally and externally.

"We put TBM and Apptio at the center of our cloud strategy," says Satterfield. "It gives me a single place to compare the total cost for Cox to provide services versus the real-world cost of consuming similar services from AWS or Azure." In some cases Satterfield says it is worth what they often see as a cost premium to quickly spin up a public cloud instance "but if you can wait a couple weeks we might provide it at half the cost. The transparency gives people the information to make the right choice for the business."



Smith explains that he needs to track how his growing investment in AWS and Azure is impacting the overall cost structure, including captive data centers and investments in network. "One of the secret sauces in Apptio is the underlying ATUM framework that allows us to put all of the costs into consistent categories. This really helps us when we want to compare costs for delivering out of our own data centers versus Amazon or Azure."

Smith acknowledges that there are many point solutions that specialize in tracking cloud usage. "I need all those costs in one place, in one cost model, so I can explain our financial plan and performance to the CFO, where we're investing in our own capabilities, what we're making good use of, where it makes sense to ramp down. Apptio brings together usage and costs from all our public clouds, private clouds and data centers to help us make those important decisions." Smith believes the automation and regular cadence of reporting and trending in Apptio is also key. "Without that, you would just lose sight of the context of your cloud spend, and if a big decision comes up around data center or capacity we'd all scramble through with spreadsheets to try to come up with an answer that we can't really track or defend over time."

Benchmarking Supports Added I&O Headcount

Cox Enterprises engages benchmark consultants on an annual to bi-annual basis. This last year, the consultant was able to use Cox's unit costs from Apptio to compare costs to similar IT organizations, saving both the extra time and cost to manually model and calculate Cox's unit costs and other KPIs. "Because both we and the consultant used ATUM to define the same sub-towers, we cut down our benchmarking efforts by half, at least," said Stalter.

The benchmarking effort looked not only at cost but also productivity and quality KPIs using underlying data and calculations from Apptio. Among the 40 KPIs in Apptio that Cox used in its benchmarking:

	Cost	Productivity Metric	Quality Metric
Application Maintenance / Development	Average cost per: support request defect fixed functional enhancement technical enhancement	Average hours per: support request defect fixed functional enhancement technical enhancement	 % projects delivered on time % projects delivered on budget Avg. budget variance % Defects in user acceptance period per 100 man-days
End User Computing	Avg. cost per workstation	Workstations per FTE	
Service Desk	Avg. cost per contact	Contacts per month per FTE	% calls abandoned % first calls resolved
Windows Compute	Avg. cost per logical server	Logical servers per FTE	
Storage	Avg. cost per addressable GB	Addressable GB per FTE	% platform availability
Database	Avg. cost per instance	Instances per FTE	% platform availability
LAN	Avg. cost per active port	Active ports per FTE	% platform availability
Voice	Avg. cost per handset	Handsets per FTE	-



Among the findings: their server and storage unit costs were far below peer average. Meanwhile while their labor productivity, as measured by as servers per admin, for example, was far above average. In other words, both seemed to be very good results. Maybe too good. Instead of celebrating the company's infrastructure frugality, Stalter advised IT leadership that this benchmark result exposed a risk. "It's an indication that we don't have a good balance of people to support the increase in infrastructure we've deployed over the years. It has really illustrated to leadership that perhaps we need to make more investment on the operations side to reduce business continuity and quality risk and protect the operational value of investments we've made."

The outcome? "The benchmark data supported the case for adding two people onto the infrastructure team this year and three more next year," Stalter says.

Rationalizing Network Carriers

Cox Automotive's rapid acquisitions naturally created duplication across its enterprise. Satterfield remembers that, before loading their costs into Apptio, it would be hard to understand or quantify. "These bulk numbers would come in from their GL showing they spent \$500,000 a month with this or that WAN (wide area network) vendor, but we didn't have any granularity we could compare."

Today Satterfield uses a TBM lens to compare and contrast to rationalize capabilities from vendors. For example, Satterfield's TBM office looked at network and telephony unit rates by location and by vendor to highlight inefficiencies. "It was actually very easy and quick for us to be able to compare and contrast the value of the services that we were getting across the carriers. We could see redundancies where we had multiple network drops in some places."

Satterfield's TBM Office compiled Apptio data to run a bake-off that would rationalize carriers. It took less than 60 days to generate a Request For Proposal (RFP) saying 'Look. Here's the new world. We only need two carriers, not 10.' The volume and data gave us leverage to start saving tens of thousands of dollars a month."

Rationalizing Contract Labor

Another area of vendor redundancy created by Cox Automotive's acquisition was contract labor. At one time there were as many as 180 contractors, a diverse mix of contingent labor contracts and professional service statements of work. "For 15 years AutoTrader.com posted double-digit growth, even through the downturn. They didn't worry so much whether this contract labor was \$180 or \$350 an hour. They needed the capacity fast."

Satterfield was concerned not just with excess cost and margin pressure, but also complexity that could impede productivity and speed, as well as introduce more business risk. "With 150 small firms, many with maybe two or even just one person, you get no innovation sharing, no long-term relationships, [and] no bench strength."

Satterfield's TBM Office delivers labor rationalization reports out of Apptio each month. They monitor monthly trends in the average daily labor rates for each of their vendors as they're being used at each of Cox Automotive's 26 development organizations. In addition to cost, these reports fold in productivity KPIs such as the percentage of developers versus project management.

With help from Apptio labor rationalization reports, the TBM Office has reconfigured its contract labor portfolio over the past three years from 150 companies to just five. "Now instead of one or two contractors per firm I have 50 or 60," says Satterfield. "I have access to more people who understand our needs. It gives me burst capabilities also at a global level, and a lot of rate card standardization. They're involved in strategy now, not just the tactics.



Promoting Sustainability with Transparency into IT's Carbon Emissions

As part of its corporate "Cox Conserves" campaign, Cox Enterprises has a goal to reduce its carbon emissions 20% by 2017. Cox Enterprise's shared technology services is doing its part by tracking its own carbon footprint.

"For the Cox companies, Apptio is a core application for tracking KPIs and metrics, not just cost, and not just IT," Stalter says.

Stalter's TBM Office uses Apptio to bring together data from multiple data sources to track its carbon emissions. Asset inventory data contains information about the make and model of racks of servers, storage devices, switches, routers, load balancers and other assets in the data center. This is correlated with manufacturers' rated power consumption for each make and model to approximate each asset's proportion of the actual power consumed in the data center as a whole. Actual power consumption is supplied by billing detail from energy bills for the data center.

Cox is starting with 2015 as a baseline and tracking progress against reduction targets. Knowing which assets are responsible for the most carbon will help in decision-making on when and which infrastructure to install, retire and refresh. It also provides more detail for the transparency campaign.

"Cox owns a data center, and we are accountable for its carbon emissions," Stalter affirmed. "We want to provide some specificity around IT's progress and open up another level of transparency in the Cox Conserves campaign."

Beyond Technology

Cox's success with Apptio has spread beyond managing technology services.

At Cox Automotive, for example, Satterfield's TBM Office is working with business leaders to connect its technology model with business operations data to understand the relationship between business activity, technology demand and ultimately the total business cost for revenue-generating transactions.

Satterfield explains, "We don't talk about servers and storage so much as we talk about demand that's hitting the website, how many people are coming in, how is that driving cost? What does it cost to place an ad on AutoTrader.com? What is the profitability per car going into an auction at Manheim? So we're talking in business terms and we can drill through the model if we need to in order to gain transparency or gain some specificity."

At Cox Enterprises, a consolidation of shared services for HR created an Apptio opportunity unrelated to technology.

Up until 2014 each of the Cox companies had its own recruiting staff and contractors. At the beginning of 2015, to drive an integrated talent management strategy, Cox Enterprises merged them into a new shared service for recruiting. It was decided from the beginning that, like shared services for technology, Cox Enterprises would charge 100% of all recruiting costs back to the various business units across the Cox companies.

A consultant was brought in to create a chargeback model that the HR staff was left to support on their own. They were soon overwhelmed. "They were attempting to do it all in spreadsheets, and they couldn't keep up," Stalter recalls. "There are multiple variables that can change how costs are calculated, and the structure of the consumption data itself was changing month after month. It was virtually impossible for them to update the model with the resources they had."



Both the technical challenge and the business pressure they were under to prove out a shared service model were familiar territory for the TBM Office at Cox Enterprises, so they offered to help. Potts helped them build their own financial model to understand their cost drivers and manage their costs overall, as well as a chargeback model to apportion recruiting service costs to the business units consuming them. "With Apptio they have their own HR business office and a business management approach to providing shared services."

Adopting TBM and Apptio

At Cox, TBM processes and data are threaded throughout technology decisions and operations, and "technology" is often inseparable from the "business." While TBM can be practiced many ways, Smith advises that the selection of a system can be key to the program's success.

"From an engineering perspective, your technique follows tools. If you don't have the right tools, you're not going to build great furniture. If you don't have the right tools, you're not going to build great software. When I look at the technology organization, if you don't have the right tools, your ability to really manage your spend and deliver the kind of transparency is going to be limited."

Apptio is a core business system at Cox. Among the characteristics that Cox values in its TBM system:

Cadence. Automation of the entire analytic value chain, from raw data extraction to business-ready dashboards, provides consistency and predictability of information to fold into business operations. "First and foremost is the operational cadence," says Cox Automotive CTO Ed Smith. "We need to know on a month over month basis how well we're doing. It's just how you run a business. You have a plan, you forecast, you measure performance."

Consistency. Automation means the same data sources and calculation methods are maintained over time. "If you're asking the same question every month or quarter, and you don't have a system, then you're reassembling everything," explains Satterfield. "The approach to the answer changes a bit because there might be someone new pulling the data, or using a different set of assumptions. So you have inconsistencies, and people are less likely to rely on the data"

Trust. When Cox began its service transformation and started practicing TBM, conversations shift from defending the data to what it means when decision-makers see data directly in a system, especially when there is visibility into the full chain of custody from original system of record to cost drivers and consumption methods. "When we use Apptio as the vehicle to view the data, versus a PowerPoint or Excel [document], it's real time. The confidence is there. They understand that we're not manipulating the data."

Relevance. By modeling raw GL costs into applications and other services the business cares about, Cox technology organizations can better engage the business. Satterfield explains, "When you're sitting down with a line of business president and they're clicking through dashboards on their own and they understand what they're seeing, you know you've reached a certain level of TBM maturity. We don't print anything out anymore. They're all in Apptio."

Understanding. Real-time cost and KPI analytics provide Cox TBM users with interactive dashboards to slice, dice, filter and drill-down through different angles to better understand cost and KPI drivers. Satterfield says "It gives you a better opportunity to drill through and have a conversation. If I'm presenting to a business owner and he wants to know why his application is so expensive, he can click to show them what drives those costs, and if needed he can click again to show what drives those. So you have a natural conversation that gets to a decision faster. You don't have to say 'Well, let's have another meeting because I don't have that piece of paper."



Speed. Analytics and a flexible model enable the TBM Office to be highly responsive to questions. Smith says that in his career experience, "When someone asks IT 'How much do you spend with Oracle?' or 'What do we spend on data center hosting?,' it can take people a couple of months to pull a reliable and useful answer together. But my team can pull it together that day. Then you have to ask yourself, what can you do with all that extra time?"

When asked about how Cox Automotive assembled a business case to justify the expense of Apptio itself, Smith challenges the premise of the question.

"I actually think people make a mistake in creating granular business cases for core capabilities. What is the business case for running technology well? What is the business case for making better decisions? To make that business case, you would have to admit that you don't do it very well today, and you're not going to find very many people in my position who are going to admit that."

"The truth is, we do struggle with it," Smith confesses. "We have to work quickly on incomplete, imperfect data. Investing in the ability to work more closely and transparently with your finance organization, to quote a MasterCard commercial, is priceless. I can't put a number on it because I have to manage my budget well and if I don't, somebody else probably will."

Championing TBM as a Strategic Function

Stalter and Satterfield have actively championed TBM as a strategic capability for technology organizations both throughout and beyond Cox by advocating how and where it can be applied to drive better strategy, plans and outcomes for the business.

"TBM is a core capability at the CIO level. It really has to be core to how we go about delivering our services. It's strategic, but it's core to how we execute, to how we deliver services and value to the business. It's how we evaluate how well we're doing, to improve, to anticipate risks. So my goal is to keep it at the forefront of the CIO's agenda.

TBM has helped Satterfield's TBM Office drive a shift in mindset and culture at Cox Automotive. "We've removed "IT" from existence. We don't use that term anymore. We're technology, which is an integrated part of our service offerings to our customers, which could be dealers or car-buying consumers. There is no IT. To a lot of people IT sounds like the guy that changes toner in the printer. That doesn't resonate here anymore."

"The impact of Apptio, of TBM overall on Cox Automotive, is a pretty big deal for us. It's an organization. It's a way of life for us. It gives us the credibility to partner across technology and business leadership. Technology people no longer run from "governance" people. We're sought out because we can help. We are at the table, participating in business initiatives for growth and expansion as well as cost-optimization and cost take out. So Apptio gives us data to participate in decisions at a very senior level in this company."

Advice for Those Starting Their TBM Journeys

The TBM team at Cox offers this advice for those just starting out with TBM or considering doing so.

Put TBM under your CIO. "I think TBM needs to be at the heart of what the CIO is focused on," Stalter explains. "We need to work with all stakeholders. It wouldn't work for us to be buried in one group in operations or finance."

Start now with the data you have. "Don't be scared that you don't have the data," says Potts. "Nobody has the data when they start. It is a journey. You don't start over every month. You



incrementally get better and better, over time. You're never done because the business changes and there are always more questions to answer."

Load in raw data. "In a previous life, we had to massage the data outside of our tool before you could get the data in. Some people will be embarrassed by their data, or think they're doing you a favor by cleaning it up, so let them know they can use Apptio to pinpoint where to fix data issues at the source."

Start Small. "Try not to boil the ocean," warns Potts. "I feel like that's what I did in my first iteration, and it wasn't sustainable. So start small, but start with something that you really need to understand and do it right. Do it so that you can sustain it going forward. And then add to it as you have the buy-in from your partners."

Leverage the TBM movement to drive internal change. "You don't have to stand up and say 'follow me!' You have this seal of approval from the TBM Council, all these companies showing that it works. You get a lot of leverage when the industry lines up on a common framework, as it did with ATUM, and shares their learnings and best practices."

Asked about the personal impact on Satterfield's career, he says "It's not very often that you can be a part of an industry movement from the beginning. It's still young as an industry but it's come very far, very quickly. To see technology evolve in the eyes of the business from IT people that change the paper to a business leader making difficult investment decisions has been an incredible experience. It's fun to be on this TBM journey."