

VELOCITY TO VALUE

A mature IT services transformation enables IT to continually simplify and innovate

A Cisco Systems case study

Executive summary

For over a decade, Cisco IT has applied business data to transform IT services strategy and delivery, garnering the support of C-suite executives and inspiring supply chain and HR teams to follow a new model for understanding costs holistically. Today, TBM and Apptio are embedded into the organization, providing a mature framework for enabling new business capabilities, delivering IT value with speed, and empowering decision-making beyond the IT organization.

Cisco Systems corporate overview

Cisco designs and sells broad lines of products, provides services, and delivers integrated solutions to develop and connect networks around the world. For over 30 years, Cisco has helped customers build networks and automate, orchestrate, integrate, and digitize IT-based products and services. In an increasingly connected world, Cisco is helping to transform businesses, governments, and cities worldwide.



Industry // **Networking and Communications**

Revenue // **\$49.2B**

Employees // **73,711**

TBM solutions

- Apptio® Cost Transparency
- Apptio® Business Insights
- Apptio® IT Benchmarking
- Apptio® Bill of IT

Benefits

- Understanding cost elements improves engagement with Finance
- Speaking a common language drives shared goals and shared wins between IT and business owners. Among them:
 - › Reduced the application portfolio by 40%
 - › Reduced the data center footprint by 35%
- A services framework allows IT to implement a successful agile DevOps/continuous improvement environment.

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"Getting the taxonomy in place and having the capability Apptio has been able to provide—enabling us to speak in a business language that enables appropriate tradeoffs—has been extremely powerful. It's really been the accelerator of the transformation we've accomplished."

Guillermo Diaz,
CIO

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The IT leaders at Cisco work at the forefront of technology innovation and see firsthand how IT is changing the way businesses operate, on multiple fronts. This digital revolution isn't only affecting Cisco's customers; it's had a dramatic impact on the way the company manages and articulates the value of IT.

Cisco was one of the first organizations to embrace technology business management (TBM), helping to shape new standards to manage the business of IT. Initially led by Rebecca Jacoby, former CIO turned COO, the organization today is a model for the long-term application of cost transparency in an IT services environment. The company uses TBM to both categorize the cost of assembling technologies to deliver capabilities to the business and demonstrate how that cost relates to business value.

In the beginning...

Nearly a decade ago, the steady rate of change within IT presented a unique set of benefits and challenges: on one hand, IT automation, integration, and analytics offered tremendous opportunities to deliver better value to the business. But managing change and ensuring IT had the right cost structure to deliver value to the business was challenging.

Drawing on an extensive background in business operations and manufacturing, in addition to more than 15 years in a variety of operations and IT roles at Cisco, Jacoby recognized that the IT challenges the company faced were comparable to those facing modern supply chains. "Cisco has had a broad transformational strategy in IT to move to a services organization, and when we looked at the transformation agenda, it struck me as a great analogy to the supply chain," she said. "It was really about putting the pieces together, just like in manufacturing when you need to put together a bunch of parts."

For Jacoby and her IT team, the way forward was clear: before Cisco could effectively manage IT services, the company needed to improve the way it accounted for the cost and performance of its IT parts. The organization adopted an early version of Apptio Cost Transparency and worked with the Apptio team to refine and evolve the platform, and then operationalize TBM in a highly structured way.

Today, service owners present a quarterly balanced scorecard, which includes current total cost of ownership and cost per use of each service. As part of this cost model approach, service owners also complete benchmarking exercises and meet periodically to ensure they are operating with a coordinated roadmap and to evaluate performance collaboratively.

According to Jacoby, operationalizing TBM in this way has changed the value conversations regarding technology at Cisco. For example, her team can now articulate the specific services IT delivers at every level—component, product, and capability levels, all in terms the business understands.

"This is a very high value to IT because there was a lot of ambiguity around this in the past," said Jacoby. "By applying the cost model, it gave us a foundation for the service owners—really, for everyone in the organization—to understand how to clearly define a service."

Not only does this give everyone a single version of the truth from which to make spending and forecasting decisions, it saves business units from losing budget because they were unable to spend it.

TBM enables IT shift to services

Guillermo Diaz was there for much of the TBM and Apptio implementation and has assumed the CIO role today. "Our vision now is to accelerate the secure digital business. That's what we do, and that's what we're being asked to do through technology and culture," he said. "Setting the foundation with an 'architecture led' and 'service is everything' mindset was key to moving faster, which is what the business needs us to do.

Today, a key IT strength is the ability to quickly organize internal teams and enable services that respond to constantly changing customer needs.

"Before TBM, our team thought we were already running services," said Diaz. "If you looked at applications, that was a service. If you looked at infrastructure, that was a service. But in reality, those were just components of the overall structure we needed to drive."

"The only way we could be successful in transforming IT and delivering the value and scaling the business needs was to make sure we were effective across all aspects of IT," said Eleanor Tullis, Senior Director, IT Business Operations. "That ability to do continuous planning, reprioritize our resources, drive optimization...all were critical reasons we embraced TBM. We had to stand up a new IT organization: one that teaches and encourages our IT team to run services holistically: like general managers."

"We have to be the general managers of our service, and I have to be able to articulate to our CEO, CFO, and COO the value of IT and the speed and value that it brings to our digital transformation. I call that velocity to value."

Guillermo Diaz, CIO

That general manager mindset is pervasive today, embedded into the way IT works internally and the way it works collaboratively with business owners and other stakeholders. At the heart of that shift has been a move away from IT as an expense center delivering independent technology functions, to a provider of services that support the business units' ability to run and grow.

"I think of our business as the business of IT," said Diaz, "and we need to run it just like we were running a large or small business."

Moving from complex to simple

Diaz recalls one of the first projects his team tackled in service transformation: data center capacity. "We were bursting at the seams. And we applied TBM to that challenge, which helped us evolve into a service-oriented organization, one that really understood the assets of applications, infrastructure, people, and process, and one that could pull that all together into a total cost of ownership view. We used TBM to become more transparent with the business with respect to how we were running the business of IT. And we used that to help them understand what it would take to run their services better and really bring them value."

Part of demonstrating the cost structure via transparency, providing that value, meant recognizing where there was unnecessary complexity and where IT needed to simplify. Said Diaz, "Our infrastructure was very complex, our application portfolio very complex. And we had service owners that said, 'Well, we can't take costs out of the business.' But with visibility, we learned there were things we actually could simplify."

To that end, every service owner was asked to take 5-7% out of their service every year. The application portfolio was reduced by 40%. The data center footprint was reduced by 35%. And because costs were more transparent, IT found more and more opportunities to drive the cost structure down and simplify the architecture. "Our focus is 'architecture led, service is everything.' Using that mindset, we continually improve the architecture and improve our cost structure," said Diaz.

Communicating end-to-end services costs

Jeremiah Penny, Senior IT Analyst, recalled, "When I first started at Cisco, the relationship between IT and business was like that of a call center. Our transformation really started by looking at the money we were spending on a service from end-to-end, from the actual people cost to software cost to the infrastructure cost associated with a specific service. We started to allocate those costs to those groups individually and moved into an accountability framework."

Whereas in the (now distant) past, IT may have been a black hole at Cisco, today IT leadership has a seat at the business table and is focused on communicating both the scope and value of IT services. TBM and Apptio are vehicles IT, business owners, and other stakeholders use to align around IT usage, cost, and value.

"IT professionals often struggle," said Tullis, "when it comes to understanding and communicating the cost of the services they manage. TBM gave us the common language to shift the IT organization into becoming general managers of services and the data-driven information to understand where we need to invest."

"Now if I look at so many of our businesses, from procurement to supply chain to commerce across the board, there's a joint partnership. They have an agreed upon taxonomy about how we talk about things, and we have an agreed upon roadmap."

"Apptio Cost Transparency has been absolutely fundamental in terms of giving us that view of the end-to-end cost of a service, looking at where we can rationalize, where we can streamline, where we can eliminate assets, software, infrastructure, headcount, OS, and reuse those assets for other things within our organization," said Tullis. "It gives our service owners the ability to drive optimization in our run-the-business costs, and the ability to prioritize the 'order of battle,' in terms of the change-the-business efforts we do. It allows us to make sure that our resources are focused on the right things at the right time."

Robert Virden, Service Costing Program Manager, added. "Today, the IT conversation has moved past point solutions and functional views of the organization. We've aligned IT to the services provided to the businesses that we support. The services framework moves the conversation, and gives us a way to understand the work we do, and to clearly communicate the value story to our customers."

Developing an agile approach to continuous improvement

From using TBM to generate a holistic understanding of the end-to-end cost of services, the IT function has evolved culturally into embedding agile processes and continuous improvement into every corner of IT and across the enterprise. "True agility is the ability to adapt instantly to changing business needs. It's the ability to look at a plan and say 'Is this still valid?' And if it isn't, to quickly find a new plan that makes sense in the environment you're in," explained Penny.

"Service management," added Tullis, "is the foundational layer that enabled us to transform ourselves from being a waterfall type of organization to now being one driven by continuous delivery and agile DevOps. We couldn't have done that without a foundation of services sharing a common taxonomy.

"For example, supply chain is one of our stakeholders, supported by an IT service owner. With TBM, the partnership between supply chain and IT makes it simple for the two organizations to agree on the service order, share a common taxonomy, and understand both the services and the end-to-end cost all the way to the business.

Now, instead of talking about this function or that system, IT looks at services as a whole. Using supply chain as an example, the IT team is more likely to ask things like "What is our current performance? What do the metrics look like together? What is the improvement opportunity?"

A true partnership with finance

When the Cisco team speaks about stakeholders, they generally refer to the business owners and other IT services users. There's one organization however that's not focused on any particular service, but rather the cost and investment value of all those services: Finance.

"Our engagement with Finance and the clarity of understanding between Finance and IT on cost composition, cost structures, fixed and variable costs, is at a level it's never been before. It's because of our services-based approach, because of understanding the different elements of cost. You just don't get that from a general ledger."

Eleanor Tullis, Senior Director, IT Business Operations

The best example might be the team's most recent quarterly review with Finance, the CIO and COO, in which data and insights from IT's TBM-driven transformation helps the team more easily articulate the composition of costs. Said Tullis, "We're pulling data from information that shows how much we were spending by architectural service grouping, what services were the top spend, identifying the cost pools, head counts to OS, depreciation to equipment, and so on. We have levers that enable us to make better decisions around what we do from an optimization perspective, and also from a prioritization, value and outcome perspective."

From a TBM perspective, IT's stakeholder community has shifted drastically from being very internally focused to now being enterprise-wide. "Even our COO is very much an advocate for how we drive a services-based mentality across the organization, in terms of how we deliver value faster, how we optimize services, and how we continue to operate on an ongoing basis."

TBM expands the impact of accountability

These “point benefits”—communications, accountability, cost transparency, and more—come together to deliver core strategic value to the enterprise. For Cisco, that value touches the entire enterprise—setting up an ongoing drive to not just run the business but to keep it in a perpetual state of growth and transformation. This has enabled the IT team to shift from “just” accountability and metrics to a broader, more strategic focus on planning and delivering ongoing value, in terms of both cost management, collaboration, and (especially) continuous improvement.

Tullis explained that accountability “is still our practice today and it’s very much ingrained in our culture where quarterly, every service owner is required to come and talk about six key metrics. But that accountability checkpoint became much broader in terms of its focus and its scope and it became not just about the accountability to metrics and how you run your service on an ongoing basis, but how you deliver value on an ongoing basis.”

Virden added, “Cisco IT has completely changed over the past four years. Today, when our IT team analyzes a metric they want to understand, they ask ‘what does this mean to my business stakeholder? What does this mean from a value perspective? And how do I improve this metric?’ We’ve moved far beyond just asking, ‘Is this metric correct?’ Now, it’s ‘How do I make a better experience for my stakeholders?’ I’m so proud of how utterly embedded TBM is across the organization.”

Collaboration leads to new opportunities to innovate

With the adoption of TBM, Cisco opened opportunities for supporting not just IT, but the business as a whole. The TBM approach is now embedded across IT, enabling IT to operate

more strategically and collaboratively across the enterprise and transforming how the enterprise views and uses IT services.

“Initially, the fundamentals were all about accountability, transparencies of costs, and driving optimization,” said Tullis, “Then it moved on to an architectural planning strategic view. And now it’s really about making sure that we’re operating together with our business so that we can deliver speed and value in terms of the business outcomes that our organization needs.”

That perspective has even expanded outside of the IT department. “Operations are now also in this transformation with us,” said Tullis. “They are looking at the services they own. We are connecting with them and making sure that we understand both the business services as well as the IT services, so that we can ensure together, as an organization, we’re delivering value with speed and quality.”

Taking into account both technology and operations costs, Diaz and team are focused on creating a realistic view of total cost of ownership. “That’s how we’re driving more value, by being able to show and drive out additional cost structure, not just at the IT level, but at the business operations level. Running operations as a service, and extending that across the business organizations, continually improving the architecture, simplifying the process, automating the analytics, and always innovating.”

Diaz’ advice to his peers in the C-suite? “Jump in with both feet, because it’s your responsibility to lead in this new digital age. We’re moving fast. The business is requiring us to move fast and be more secure. Driving the transparency, understanding that you’re running a business, the business of IT, the business of technology—that’s what TBM is all about.”



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