Executive summary
The Information Systems team at Intermountain Healthcare has harnessed IT cost data to support a portfolio of apps, services, and projects, anchored by a service language that speaks clearly to the business. They’ve secured buy-in and built confidence with business partners by investing in a framework that translates technology costs into both financial and business language, benchmarking against peers, and streamlining IT planning to focus on demand and opportunity. The team is now poised to influence consumption behavior by changing the way they allocate costs to the business—all because they have a handle on their data.

Intermountain Healthcare corporate overview
Intermountain Healthcare is a Utah-based, not-for-profit system of 22 hospitals, 185 clinics, a Medical Group with some 1,500 employed physicians, a health plans division called SelectHealth, and other health services. Helping People Live the Healthiest Lives Possible®, Intermountain is widely recognized as a leader in clinical quality improvement and in efficient healthcare delivery.
TBM solutions

- Apptio® Cost Transparency
- Apptio® IT Planning
- Apptio® IT Benchmarking
- Apptio® Bill of IT

Benefits

- Forecasting to 95% accuracy in a tenth of the time
- Application rationalization immediately frees up $100K per year
- Better benchmarking with real data going in and coming out
- Better governance and buy-in with the ATUM framework and a common services library in place
- Micro-business mindset across Information Systems

Data has been the secret sauce at Intermountain Healthcare for the past 40 years. The organization has one of the largest data warehouses in the integrated health delivery field, and is known for its data-driven approach to improving clinical outcomes and lowering medical costs. Leveraging thousands of data points curated in their own system, physicians are able to rely on fact-based evidence that supports medical decisions. Those decisions have made a lasting impact on the quality of healthcare delivered by the organization in support of the company mission: Helping People Live the Healthiest Lives Possible®.

Information Systems (IS) plays a key role in helping physicians harness that data. “Physicians are bombarded on a daily basis with an overwhelming amount of new information. They need tools—technologies, processes, protocols—to be able to process data-driven insights and make the best decisions possible,” said David Jacobs, Assistant VP, Business Information Systems at Intermountain Healthcare. “Information Systems is committed to developing, maintaining, and evolving technologies that support their ability to provide the highest quality patient care.”

Applying a data-driven approach to IT

Today, Information Systems has harnessed IT cost data to support a portfolio of apps, services, and projects, anchored by a service language that speaks clearly to the business. They’ve secured buy-in and built confidence with business partners by investing in a framework that translates technology costs into both financial and business language, benchmarking against peers, and streamlining IT planning to focus on demand and opportunity. The team is now poised to influence consumption behavior by changing the way they allocate costs to the business—all because they have a handle on their data. But this wasn’t always the case.

Ironically, like the proverbial shoemaker’s son who doesn’t have shoes, Intermountain Healthcare’s IS team didn’t have its own system for leveraging data to manage the business of IT until three years ago. Part of the reason was that IS had been (and continues to be) deeply focused on digital transformation projects that improve patient care and encourage early participation in healthcare decisions.

Intermountain Healthcare developed one of the first EMR (electronic medical record) programs in the country, but the 40-year-old system was fragmented and had become a maintenance challenge. A multi-year, resource intensive project to replace it has been underway for some time. The organization has also been focused on a telehealth initiative, which allows providers to engage patients at remote locations through mobile devices, and other digitalization projects.

Don Franklin, Assistant VP, oversees Infrastructure & Operations at Intermountain Healthcare. “We are a digital organization focused on healthcare, and that ‘digital’ part is so critical to our mission. As a result, the tremendous amount of change we’re seeing related to information systems delivery—SaaS, cloud, mobile, big data, analytics—is having a big impact on our organization and the industry as a whole. We’re seeing these technologies really transform the delivery of healthcare.”

As facilitators of this change, it became increasingly clear to Jacobs, Franklin, and their team that the pursuit of efficiency required an investment in technology business management (TBM). “We needed a better system to understand the demand generated by these initiatives. We needed better tools to help us organize and facilitate a proper prioritization of that demand, and to help us understand how can we plan and budget for it,” said Jacobs. “It wasn’t just about managing our
different cost centers—we also needed to better manage initiatives. TBM helped us focus our resources to better meet the needs of our customers, so that we complete those projects that ultimately impact patient care.”

The IS team had been working for decades to help physicians and other business leaders use data to provide higher levels of clinical care. But they had not given the same level of effort or time to collecting data they could use to more efficiently and effectively run information systems as a whole. “To truly benefit our customers, it was important that we applied that same data-driven strategy to IS,” said Jacobs.

**A roadmap for TBM success**

Given the company’s maturity around data, TBM wasn’t a hard sell. In fact, familiarity with how to organize and optimize data systems proved to be an advantage for implementation. But the CIO wanted to take a measured approach, one that wouldn’t detract from other projects and interrupt workflows. So, the IS team outlined a practical step-by-step guide for harnessing data to understand costs, promote analysis, and provide insights back to the business.

The TBM roadmap was divided into five areas of focus for each phase of implementation: technical, operations, services, governance, and transparency. Each area had a specific objective:

- **Technical**: determine how and from where to pull in data, and manage the functional set up
- **Operations**: put processes in place around the data
- **Services**: develop and manage a list of IT services
- **Governance**: manage service, app, and project portfolios
- **Transparency**: communicate costs and value to the organization

This roadmap outlined a new vision for the IS team: evolve the relationship with each customer into a partnership that allows IS to better meet changing technology demands. Today, the goal is directly tied to the corporate mission: to improve the value of information systems in helping people live the healthiest lives possible.

**Year 1: Capturing the data and defining services**

In the first phase of TBM implementation, the IS team focused on creating a common repository for IT cost data. The team stood up Apptio Cost Transparency, implemented some basic cost allocation rules in place of a CMDB, began to identify a service library, and developed a TBM “playbook,” defining roles and responsibilities and outlining an operational model.

These investments represented a big shift for an IS department that was used to keeping everything in-house, relying on very few vendors for support.

“When I first came to Intermountain Healthcare nine years ago, I heard Information Systems referred to frequently as a black box. So, we created our own version of an allocation model to be more transparent,” said Jacobs. “We used consumption-based metrics in some areas, but we could only take it so far. We simply weren’t able to fully vet all of our assets, all of our servers, etc. There were these big buckets for things like maintenance contracts and depreciation, and we did our best to make it work. But we couldn’t get down to the level we needed to provide levers—for ourselves or the business."

The TBM team put a new allocation model in place, using the Apptio TBM Unified Model (ATUM)—a system designed to translate cost information into standard categories—to aggregate and organize data. The model captured the cost of a server, for example, and moved that cost into appropriate IT services, then attributed that to the business unit(s) using previously defined metrics. This enabled deeper analysis and reporting on IT services.

The IS team then established a business relationship manager program, defined user groups, and connected services to a list of reconciled apps. They also began to outline role-based training and link all IS delivery tools and systems to the service library.

Getting services in place was key to ensuring the IS team could translate what they were doing into things that were meaningful for the business. Said Steve Morley, TBM Manager, “Before cost transparency, we all had our own perspectives on what we meant by services, whether we were tracking time differently or presenting cost one way and tracking incidents another—it was all from different perspectives. Cost transparency united us around what it is we provide and allowed us to communicate effectively with the business.”

Governance and buy-in became much easier with the ATUM framework and a common service library in place. “Because we no longer needed to invest specialized resources and time to manage the data, we had better governance of the data and we could focus on the alignment of IT to service, application, and project activities and plans,” said Morley. “Our primary objective was to make sure we were all communicating at the same level and in the same language about services, so that we maximized the value we were providing. Without this governance, we’d definitely have risked the project’s success.”

“Governance for us is about managing resources, providing visibility, and working on the right things on an ongoing basis,” added Franklin.
Year 2: Benchmarking and IT Planning

TBM enabled IS to begin tying services to business capabilities and processes and establish service metrics linked to the business. As the IS team moved into year two of implementation, they initiated a format and test for demand management and established a plan to align and improve the data used to run IS. This plan included goals aimed at creating the ability to rationalize each service, from the application level down to the server, and provision storage for each.

Better benchmarking

At this point, Intermountain Healthcare was ready to create new engagement opportunities with the business, establishing quarterly business reviews, as well as internal service reviews. Better benchmarking capabilities provided a welcome tool for engaging with the business. New benchmark automation significantly reduced time spent gathering data, and ATUM-based alignment made the data more relevant, focusing the team on areas of opportunity.

Said Morley, “Benchmarking gave us a tool we can use to help our managers look for those opportunities where they can improve—and where we can improve the value of services with the resources that we have.”

Increased confidence in benchmarking has made the IS team more eager to share benchmark results with senior leaders, including the CIO. As they look at the data and present it, they’re able to focus more on supporting their interpretation of the data.

“Storage is a good example. We’re not only better able to understand the benchmark, but to explain why we are high or low,” said Morley. “The interpretation of that benchmark is just as critical as the benchmark itself, and we are working hard to ensure we can help interpret the information correctly.”

IT planning

IT budgeting and forecasting became a key focus in this phase, as testing transitioned to adoption of the Apptio IT Planning application.

“Planning used to be a very manual and cumbersome effort here. Much of our time was spent working with department managers to understand and capture their needs, and translating them into a financial language we could manage in spreadsheets and pass up into the corporate budget system,” reported Morley.

Intermountain Healthcare uses a corporate budgeting system built to capture hospital-type data, a necessary model built for the healthcare industry. But communicating IT financial data to corporate and then back out to the business felt at times like trying to force a square peg into a round hole. “We have to fit in, and it’s very financial-language driven, as you would expect. It’s just not very user-friendly for our 70 department managers,” said Jacobs. “But the ATUM framework allowed us to translate technology language into both financial and business language.”

Apptio IT Planning allowed IS to put the budget in the IT department manager’s hands, where they were able to build a zero-based budget and justify everything from maintenance contracts to consulting, and everything in between. “IT planning has been really exciting for our users. We moved from a collection vehicle that didn’t help them tell their stories to a planning environment that lets them speak in a language they understand,” said Jacobs. “And now, we go back and forth much more easily than we can in spreadsheets, where we were constantly worried about losing something in the translation.”
“With Apptio IT Planning, we cut down the amount of time spent capturing the budget and trying to make it an accurate statement of what we expect and anticipate. And that allowed us to spend more time analyzing the link between the budget and the demand for information systems services,” said Morley. “We’re actually able to get a forecast to 95% accuracy in a tenth of the time in IT Planning versus what it took in a spreadsheet.”

TBM has given IS leaders new confidence in budget presentations and other meetings in which they are fielding questions from managers or senior leadership. Said Morley, “It allows us to have the confidence to explain and answer questions with true and relevant information. And if there’s an opportunity for improvement, we know that we can actually make those improvements versus it being a guessing game.”

**TBM successes**

Intermountain Healthcare’s IS team realized benefits from TBM early in the implementation stage. One of the first pilots was conducted with the pharmacy group, a team IS was already meeting with on a regular basis. As the IS team discussed cost transparency and its benefits with the business unit, the group asked for details. Specifically, they asked to see a list of applications.

“We had a preliminary list with us, though we cautioned the group that the data wasn’t ‘perfect’ yet,” said Franklin. “They scanned it right there in the meeting and immediately identified an application they were no longer using and said, ‘You can turn that off.’ That application was costing us $100k per year. Being able to provide some transparency in that one meeting resulted in immediate savings. That’s when we knew transparency was going to be a good thing.”

There are many intangibles too. “A lot of our teams are working more closely together than before. They’re rallying behind TBM. They see the need and the vision for where we want to go, and they are willing to put in the time and resources to help get there,” said Franklin. “IS teams are excited to collaborate to build out TBM tools, capabilities, and processes, so that when we’re having conversations with the business, we can take feedback and actually do something with it. We want to make it real as soon as possible.”

One of the biggest changes Franklin has noticed in his department is heightened awareness around decision making. “A lot of our service owners want to know who’s using the data and what it means, and they’re starting to think about their costs from the perspective of their customers.”

“For some of them, it’s scary at first,” Morley added. “One of our service owners confided, ‘What if they see the list of 10 things I’m doing for them and they don’t want me to do those things?’ Well, it’s on us to make sure we’re providing value, and only spending resources on things that matter. We have to prove the value. And we’re asking our service owners to do that very thing.”

The team currently has 20–30 users logging in to the TBM tool on a month-to-month basis, many of whom are active multiple times per month. “What’s validating to me is that they’re not just going in once for two minutes and leaving, they’re logging in multiple times. They’re actually looking for those insights. They’re looking for how they can to use that data to better run their business,” said Morley.

**What lies ahead in Year 3: closed loop planning + chargeback for IT consumption**

As the roadmap evolves, the IS team continues to foster a strategic connection between the team’s technical activities and the delivery of patient care. “We have such an important role in helping people to live the healthiest lives possible,” said Franklin.

By establishing a bridge between IT service delivery and business demand, in the form of service, apps, and projects, today the IS team is better positioned to gather input from the business, orient their agenda, and plan and allocate budget for those priorities. Franklin and Jacobs share a desire for app and service owners to be able to plan effectively in these portfolios in the future.

“Our organization continues to sharpen the pencil,” said Jacobs. “We want to make sure we know what our teammates are planning for, and that we understand the value to the business. We want to have confidence that our plans aren’t just accommodating new, cool technologies but instead, technologies that will help deliver those outcomes the business wants. And as they are delivering those things, they can look at chargebacks to the business for their consumption of those things.”

Intermountain Healthcare currently allocates an annual budget, dividing it by services and allocating primarily on a flat rate. But in coming years, as business units are consuming services, IS wants to make sure not only that the services make sense, but that they include levers partners can pull to impact their costs. They’ve invested in Apptio Bill of IT and plan to leverage Apptio IT Planning for this purpose.
“We are planning to have our service owners on the IT side assigned to each area, whether that’s around pharmacy, cardiology, laboratory, or financial services,” said Franklin. “As they have regular reviews with the business, understanding the plan is critical to aligning the IT strategy with the business strategy for that particular area. As we get that info, we can formulate our plans—the budget needs, the FTEs, the new apps that are coming on, etc.—and make sure we’re prepared to meet the upcoming demand.”

Moving from defense to offense

“TBM helps us to be great stewards of this delivery of digital, and delivery of digital is huge in terms of the care that we’re going to be giving to the community,” said Franklin. “Because of the digital aspects of care, it’s critical that, as IT leaders, we are around the leadership table, helping to improve healthcare. And TBM gets us a seat at that table because of the value we can demonstrate and the trust we earn as a result.”

Franklin continued, “Without TBM, we continued to be in defense mode. With TBM, we’ve moved to offense. We are able to supply data that helps the business increase trust in what we’re doing, and improves the delivery of healthcare. Without TBM, there’s a lack of trust. With TBM, we increase trust, which gives us the capability to truly impact clinical outcomes.”

Become a member

Founded in 2012, the Technology Business Management (TBM) Council is a nonprofit organization governed by an independent board of business technology leaders from a diverse group of the world’s most innovative companies like AIG, Aon, Cisco Systems, DuPont, ExxonMobil, First American, Microsoft, Nike, and more. The Council is focused on developing a definitive framework for managing the business of IT by establishing standards and providing ongoing collaboration and education opportunities. Learn more and become a member at tbmcouncil.org.