

TECHNOLOGY BUSINESS MANAGEMENT PLAYBOOK

This playbook is designed to assist federal agencies as they **start Technology Business Management (TBM)** implementation. While each agency should tailor its TBM implementation to their organization's current state and desired outcomes, the playbook **offers guidance and lessons learned** from the **U.S. General Services Administration (GSA)** and the **U.S. Department of Education**.

Each play here is a plan of action or strategy used to move toward a goal or objective. **The 7 plays in this book will improve your chances of beginning a successful TBM implementation.**



The TBM Basics

TBM is a **methodology designed to communicate the value of information technology** to agency stakeholders. TBM focuses on **cost transparency, delivering value, identifying the total cost of IT, and shaping demand for IT services.**

To gain alignment between IT, finance, and business stakeholders, TBM provides a standard taxonomy with three different perspectives:

- **Finance View:** The lowest layer of the model begins with the general ledger. It has **cost pools** such as hardware, software, and labor.
- **IT View:** The middle layer includes a set of IT **towers** and sub-towers, such as servers, storage, and applications.
- **Business View:** The taxonomy provides a standard set of application and **service** categories along with higher-layer **business units** and **business capabilities**.

Why TBM?

TBM **is a way to manage IT like a business, support value conversations, maximize the benefit achieved through IT spending, and align with business needs and strategy.**

Some key benefits of TBM include:

- ✓ Optimizing uses of funding and rationalizing portfolios such as platforms, applications and vendors
- ✓ Aligning technology spending and investments to business priorities
- ✓ Discussing budget in terms that business partners can understand
- ✓ Shifting IT into the role of a service broker instead of an order taker
- ✓ Reflecting total costs with supporting detail
- ✓ Providing a better understanding and method to communicate the IT budget to customers
- ✓ Supporting Federal efforts to promote cost transparency and improve IT management

The 7 plays...

1) Identify key players and stakeholders

An effective TBM program consists of business stakeholders, financial analysts, and IT and acquisition professionals. Together, this team drives change through collection, analysis, reporting, and informed review of IT data.

2) Determine current state

To understand what the TBM journey will look like for your agency, it's necessary to understand current data collection and aggregation methods, financial systems, business processes, and models your agency already has to support TBM. No matter your current state, TBM can bring value.

3) Identify measurable desired outcome

Identify how your agency can deliver the right IT services for the best possible price as you work with stakeholders to identify priority areas to focus your TBM efforts.

4) Start aligning data

Based on your agency's current state and desired near term outcomes, it's time to start working with financial data. Starting from the bottom up is recommended - aligning financial data to cost pools before moving to tower and service mapping.

5) Look for insights

Now that you have started mapping your data, where does that data lead you? Focus on examining the data to see how it provides insights into issues or benefits around the identified outcomes.

6) Rollout and adoption

Now that you have completed the first iteration of your TBM implementation, start integrating TBM principles, data, and value discussions into meetings and funding reviews.

7) Keep maturing the TBM implementation

Assess your maturity and identify opportunities to maximize your TBM implementation.

Play #1 - IDENTIFY KEY PLAYERS AND STAKEHOLDERS

An effective TBM program consists of **business stakeholders**, **financial analysts**, and **IT and acquisition professionals**. Together, this team drives change through collection, analysis, reporting, and an informed review of IT data!

Target Output: Dedicated TBM team with support from a broad set of stakeholders and data stewards.

Build your TBM Implementation team. The TBM Implementation Team has dedicated staff that generally consists of these key roles and responsibilities:

Resource	Typical Background	Responsibilities
Executive Sponsor	CIO, CTO, CFO	Takes personal ownership of the TBM transformation; ensures resources are available, articulates a compelling vision, removes barriers, and drives accountability.
TBM Program Manager	Budget or Resource Management	Leads the TBM implementation team and works with leadership to identify desired outcomes and set strategy for the TBM project.
TBM Analysts	Financial Management, IT Analyst	Manages the TBM cost model, transform data, build reports, and trains users; Work with stakeholders to improve reporting and analyze output.

Grow your TBM resources. Identify agency personnel outside the TBM Implementation Team that will provide data, review TBM reports for insights, and assist with maturing the TBM implementation.

In addition, providing educational opportunities to key players and stakeholders will help everyone understand common TBM terminology and definitions. This can be done through TBM “101” courses that provide a basic foundation or deeper dives into TBM models and data. The government-wide TBM Community of Practice has also developed templates to assist agencies with TBM training.

Resource	Typical Background	Responsibilities
Agency Stakeholders	CHCO, CAO, Senior Leadership, Others	Reviews the TBM outputs and holds the decision-making responsibility around how business and IT will work together to complete the agency mission and fund IT requirements.
Data Owners	Finance/Budget, Contracts, Infrastructure, Applications, Services	Responsible for providing data required to implement TBM.
Subject Matter Experts (SME)	Specialized analyst	Provides input and guidance; execute planned activities; identify issues as they arise.



LESSON LEARNED

“Pull from existing resources”—When building your TBM Implementation Team, you do not have to look far. There are often people on your team who have the right background to help based on the use cases you need to fill. If you do not find the right resources the first time, don’t be afraid to course correct. Take a look at budget/capital planning and enterprise architecture as a starting point with at least 2-3 dedicated resources.



“Don’t go it alone”—Instead of redesigning and generating things from scratch, plug into the TBM Community of Practice, use TBM resources, and talk with other agencies about how their TBM implementations are progressing. This will shorten your implementation time.

Play #2 - DETERMINE CURRENT STATE

To understand what the TBM journey will look like for your agency, it's necessary to know what **data, financial systems, business processes, and models your agency already has available** to support TBM. **Most importantly, no matter your current state, TBM can bring value.**

Target Output: Document current state, identify gaps and areas for improvement, define scope of implementation.

It is important to get a handle on your agency's financial system and business processes as part of the current state analysis. Some agencies may budget at an organizational or object class level with less financial detail, while others may have greater transparency by budgeting at contract level, project level, or similar line item level. Understanding this granularity will help you start building out the initial taxonomy layers and linking disparate data sets.

Scope. Select a scope for your initial implementation. A broader implementation may include IT spend across the agency, while a more focused implementation may start with direct CIO spend before including additional data. A more centralized IT organization may better support a broad implementation versus a federated model.

Organizational Structure. Identify how the IT organization is structured within your agency. This knowledge will help your team understand functional mappings, like IT towers. It will also help identify valuable points of contact to retrieve and aggregate data throughout your implementation.

Data. Based on the detail level of your agency's financial data, there are **different approaches you can take to get started with TBM:**

- **If your agency only has data at a high level**, identify other systems or business processes that will improve data granularity to support TBM modeling.
- OR**
- **If your agency has more granular data**, begin mapping financial data to cost pools, towers, and services to identify gaps.

While your initial implementation will be based on your agency's financial structure and rules, keep in mind that government-wide policies could impact your implementation. While the foundation of TBM is financial data at the cost pool level, other data will be needed to understand how IT funding supports towers, services, systems, and stakeholders. Identify your agency's processes and data collection for budget planning, invoiced/actual expenditures, contracts/vendors, personnel, fixed assets, usage (e.g., help desk tickets or licenses usage), system inventories, and enterprise architecture data (see the [Appendix](#) for a list of notional data sources).

Tools. Whether your agency needs a specific TBM tool depends on the desired outcomes of your TBM implementation. If you decide to purchase a tool, utilize existing schedules or procurement opportunities when practicable. For some agencies, **a detailed spreadsheet** could be a reasonable approach to mapping data and gaining insights to IT spend.



LESSON LEARNED

"Start with a spreadsheet"—Two dimensional spreadsheets can take you a long way by helping to develop an initial mapping to cost pools, towers, and services along with other identifying data such as related projects, investments, or organizational owner. This will help you to start connecting the data needed to support TBM. Eventually, a relational database will be needed to establish complex relationships between financial data, infrastructure data, and business data.

Consider what tools are already available or in use at your agency

Is there a financial system at your agency that can be modified to collect TBM data and provide reporting? If funds are not available immediately to purchase a new tool, continue working with current resources and demonstrate value or insights from TBM to support further funding.



Models. What models are your financial, enterprise architecture, governance, CIO, CFO, CAO or CTO using already? For example, service models that are similar to the TBM taxonomy could be leveraged.

Play #3 - IDENTIFY MEASURABLE DESIRED OUTCOMES

Identify how your agency can deliver the right IT services for the best possible price as you work with stakeholders to identify priority areas to focus your TBM efforts.

Target Output: Identification of near- and long-term outcomes. Selection of initial project and scope.

While TBM provides a common taxonomy applicable to all organizations, the use cases and outcomes should be tailored to meet the needs of your organization. What are the big questions commonly asked of IT by its customers, stakeholders, or business partners?

→ Agency Stakeholders

- ◆ Why are IT costs on the rise?
- ◆ How does our IT spend compare to other organizations?

→ CIO

- ◆ What is the total cost to run my applications?
- ◆ Can I save money by migrating my applications to the cloud?

→ CFO

- ◆ Is IT spending aligning with the financial plan and agency strategy?
- ◆ How do current spend patterns affect future budget projections and needs?

→ CAO

- ◆ What is total spend across similar vendors?
- ◆ What is the mix of internal and external labor that supports each IT function?

Once you have identified an initial list of key questions, work with agency leadership to validate and confirm the list. This could be done through surveys, workshops, or focus groups. Think about whether increased cost transparency, automation, and access to data could help IT leaders field these questions more effectively. Whatever these questions are for your organization, they should be used to inform and prioritize the outcomes of your TBM implementation and can help develop a TBM Roadmap. This will provide a clear vision and plan to execute the priorities of the TBM implementation. TBM Community of Practice has developed a sample roadmap for agencies.



LESSON LEARNED

“Level set expectations early”—Some outcomes will be more complex and difficult to achieve than others so talk with leadership and stakeholders about effort level and milestones.

Comparing the cost of on premise infrastructure versus migrating to the cloud may be one desirable outcome, but it is likely a long-term effort. Instead, your agency could focus first on a short-term outcome to find a “quick win” to show the value of TBM. For example, selecting a large contract, system, or service to analyze using the TBM taxonomy could support a value discussion with a key stakeholder. This could lead to a change in approach or a better understanding of current costs.



LESSON LEARNED

“Don’t try to boil the ocean”—Implementing TBM is a complex initiative that will take multiple resources. Breaking down the implementation into smaller, more achievable milestones is more manageable.

Play #4 - **START ALIGNING DATA**

Based on your agency's current state and desired near term outcomes, it's **time to start working with your data. Starting from the bottom up is recommended** - aligning financial data to cost pools before moving to tower and service mapping. There will be data challenges. Make valid assumptions as you work through the taxonomy and develop a plan to improve this over time.

Target Output: First draft of IT costs mapped to the TBM taxonomy

Before starting your mapping effort, ensure the TBM team has reviewed and gained consensus on TBM definitions. This will unify your communication with stakeholders and minimize discrepancies as multiple team members work on data mapping.

As you map financial data to the TBM taxonomy, you will likely identify some categorization challenges. Note that there is no requirement to use every element of the taxonomy and some elements may not be relevant to your agency and its mission. Instead, consider which elements are feasible for your agency to capture and provide the most transparency into your IT operations. It is important to map data to a meaningful level based on your desired outcomes, so consider what level of the taxonomy will be implemented initially versus when you mature your implementation.



LESSON LEARNED

“Avoid numerous piecemeal data calls”—Instead consider working as an integrated team with data owners to make sure all key elements are included in the most efficient way possible. One approach we have found helpful is to provide data owners with pre-populated drafts of how their budgets map to the taxonomy as opposed to asking them to start with a blank slate.

Assess how well the financial data are aligning to the taxonomy, then work with the team to make decisions on how to improve alignment. Approaches include:

- Make assumptions in order to map more data. Examples of common assumptions include using the 80/20 rule, e.g., if an expenditure is mostly for external labor, map to that cost pool versus spending time trying to break apart the line item into many cost pools.
- Meet with data stewards and financial processing subject matter experts to get help with complex mapping of existing taxonomies to the TBM taxonomy. Through discovery, you may find that business processes and/or data structures may need to be altered to gain your desired reporting outcomes.
- Determine if a data call may be needed to improve amount or quality of data.



LESSON LEARNED

“Use what data you have and keep going”—Many agencies have data that does not easily translate to TBM or may not be detailed at a useful level, but working with your data will increase understanding of what data you have and will help identify what gaps to address first. Utilize resources available to you - from the TBM Community of Practice and in the public domain. Remember, start with what you have and work to fill the gaps over time!

Play #5 - LOOK FOR INSIGHTS

Where does your data lead you once you start mapping it? **The TBM Implementation Team should review the data** to see how it **provides insights into issues or benefits around** the identified outcomes.

Target Output: Documented insights that lead to decisions or I further analysis.

The purpose of TBM is to give decisions makers the data needed to have value-driven discussions around the cost and value of IT. Starting the conversation and integrating TBM principles into your agency's culture is the foundation that will lead to insights. Transparency and increased understanding lead to strengthening the trust between business and IT stakeholders. If the TBM data does not provide immediate insight, it will at least help your team select a focus area or direction that will lead to new insights. Business and IT stakeholders should review the data with the TBM team to explore data and identify insights. TBM data should be provided to end users in the way that best fits how it is housed (ex. through spreadsheets, briefings, or tool-generated reports for end users).



LESSON LEARNED

"Provide visual, easy to use reports for stakeholders" — Allow stakeholders to view, drill down into, and ask questions about these reports. Stakeholders are more likely to get involved if you walk them through the reports. Follow up with stakeholders to keep the momentum going.

Common Insights

- ✓ Is the percentage of spending between the different cost pools and towers expected?
- ✓ Are several offices spending similar amounts on the same towers? Should they be?
- ✓ Are there large gaps in data that data owners could fill in the next iteration?

Highlight insights that could lead to actionable decisions for leadership. Once insights are gained, document what led to the decision and what the outcome was - cost savings, change in process, change in IT strategy. This will help keep up the momentum for the next TBM project or sprint. During this play, refer back to the expectations set during Play 2, Identify Desired Outcomes. If there are not many initial insights or the insights do not lead to significant or immediate change, communicate with stakeholders on how TBM activities are progressing and continue communicating goals and activities that are underway to identify additional insights.



LESSON LEARNED

"Consider your approach in stakeholder discussions" — Consider a top down approach or service delivery approach when talking to business stakeholders as the business tends to think about services they offer versus detailed cost data.

Play #6 - ROLLOUT AND ADOPTION

Now that you have completed the first iteration of your TBM implementation, **start integrating TBM principles, data, and value discussions** into meetings and funding reviews.

Target Output: Share awareness of TBM goals, terminology, and achievements across the agency. Increase active participation in TBM discussions and activities.

You can socialize TBM with your stakeholders - IT, business, and financial - in several ways:

- ✓ Use the terms cost pools, towers, and services when discussing IT spending
- ✓ Provide links to reference documents that contain visuals and definitions
- ✓ Show reports in TBM format so stakeholders can look for insights and review data
- ✓ Demonstrate and document how decisions have been made using TBM data
- ✓ Discuss what the TBM team and larger stakeholder team are working on next
- ✓ Ask for ideas for the next TBM sprint
- ✓ Invite stakeholders to be active participants in TBM activities



LESSON LEARNED

“Keep focus on the why you are doing this”—It’s easy to get buried in data and modeling so continue to emphasize the outcomes the TBM effort will achieve so stakeholders continue to champion the effort. Avoid letting TBM become a compliance exercise versus a new way to discuss, consider, and talk about the value of IT.

Stand up a governance team to ensure the TBM model and data decisions make sense for your agency. This team may fit within your agency’s current governance framework or be a new entity. This group will focus on the TBM cost model to:

- Determine how data will be allocated to the TBM taxonomy through cost pools, towers, and services
- Provide decisions on customizing your TBM cost model
- Recommend methods and approaches for IT systems, processes, and organizational structure to mature TBM implementation



LESSON LEARNED

“Establish robust stakeholder communication early”—Leverage organizational change management practices to provide a variety of methods to inform and engage stakeholders.

The TBM team should develop **a communications and change management plan** that addresses how the TBM implementation will impact:

- **Processes** - Will financial transactions be processed differently? Will contracts include new requirements or formats to support TBM?
- **Tools** - Will new systems be used? Will fields in current systems have new rules or usage?
- **People** - How will stakeholders be educated about TBM? Who will attend TBM meetings? Who will be involved in TBM governance?

The plans can be updated through the implementation to reflect maturity of the implementation and decisions made by your agency.

Play #7 - KEEP MATURING THE TBM IMPLEMENTATION

Assess your maturity and **identify opportunities to derive greater TBM impact.**

Target Output: Established metrics and review cycle to identify how data and models are maturing and improving.

Based on your initial TBM rollout and adoption, you will **quickly identify your agency's strengths and areas for improvement.** A key way to mature your TBM implementation is to **establish target TBM metrics and measure progress routinely.** The metrics should be related to both the outcomes identified by leadership in Play 3 as well as any insights gained in Play 5. There may be aspirational metrics that cannot yet be measured, that instead map to gaps that will be filled as you mature your TBM implementation.

Metrics may include:

Metric	Rationale / Actions to Improve	Calculation
Cost of IT Service/User (Year over year trend vs. target)	Important for internal IT team to bring together the Capital expenditure/Operating expenditure side of IT costs and for business to understand their cost usage; aim to reduce this year-over-year	\$: IT service total cost of ownership spend / # Users
% central IT cost vs. total IT cost	To understand centrally managed IT spend vs. IT spend that is embedded within the business lines	\$: Total IT cost / Central IT cost

You can also mature your TBM implementation through the following ways:

- ✓ Continue change management activities including outreach and training activities
- ✓ As you achieve an acceptable level of maturity with TBM data for a particular area or data set, then select the next data set, focus area, or sprint
- ✓ Improve the data you already have based on feedback from stakeholders
- ✓ Conduct an assessment of TBM activities semi-annually to determine what is working well or when a change in direction or focus is needed



LESSON LEARNED

“Practice continuous process improvement”—Your implementation will mature and improve as your agency works with the TBM model and discovers how it can illuminate information. Instead of holding information until it's perfect continue to show stakeholders progress and incorporate their feedback.

TBM is a journey. Use this playbook as a guide and be prepared to work through the steps...and re-work through the steps. Utilize other resources - like agencies currently implementing TBM. In addition to the steps laid out in this Playbook, the government-wide TBM Community of Practice has also developed templates to assist agencies with TBM training. Please refer to their MAX page for those resources.

Appendix - TBM Data

Data Type	Description	Data Source	Used for
Financials	Detailed financial records including budget, obligations, and expenses	Agency financial system, planning spreadsheets, congressional justifications, CPIC data	Reporting and metrics
Fixed Assets	List of agency assets and their depreciation schedules	Configuration Management Database (CMDB), enterprise asset management system, subject matter expert (SME) spreadsheets, general ledger data	Cost allocation, reporting, and metrics
Labor	Labor tracking including salary, headcounts and job function	Human resource system, work load spreadsheets	Reporting and metrics that involve personnel costs
Vendor and Contract Information	Contract information including identification number, vendor information, type of contract, and dollar amounts	Agency's vendor management system or vendor management office spreadsheets	Cost allocation, reporting, and metrics
Infrastructure	Consumption/utilization of infrastructure resources including: Servers, Storage, Network, and Cloud	Monitoring tools, CMDB, cloud invoices	Cost allocation, reporting, and metrics.
Applications	Application inventory including such things as name, business owner, technical platform, technologies, interfaces, users, and description	CMDB, license management tools, enterprise architecture repository	Cost allocation, reporting, and metrics. Application Total Cost of Ownership (TCO)
Service Catalog	Listing of IT services provided with related descriptions	IT service management (ITSM) system	Cost allocation, reporting, and metrics. Showback/chargeback
Business Units	Name, descriptions, codes, and hierarchy of business organizations	Organizational charts, spreadsheets, financial code hierarchies	Cost allocation, reporting, and metrics. Showback/chargeback

NOTE: This list is not comprehensive and is only a sample of data that may be required.