TBM Integration with ServiceNow® CSDM

Authored by The TBM Council Strategy Community:

Mathew Temple
Transformation Excellence Manager, *Accenture*

Michael Enslein
Sr. Business Analyst, *Tenet Healthcare*

Brian Bell
VP of Planning & Strategy, *Church & Dwight Co., Inc.*

Jeroen van Craaikamp
ServiceNow Interim Manager, *JAVC Management & Consultancy*

Wubbe Gelling
IM Manager Service Excellence, *Nouryon*

Justin Mann
Director, Research & Standards, *TBM Council*

TBM COUNCIL

STANDARDS COMMITTEE

TBM COUNCIL

Table of contents

Executive Summary

TBM is a value-management framework instituted by CIOs, CTOs, and other Technology leaders. It provides a standard taxonomy to describe cost sources, technologies, resources, and solutions. The taxonomy provides the ability to compare technologies, resources, and solutions to peers and third-party options.

An ongoing priority for TBM practices is to improve and expand the insights generated from TBM systems for decision support. This is commonly accomplished through data augmentation and integrations with adjacent platforms, allowing for crucial association of assets, resources, and work with cost, consumption, performance and spend data, or even cyber-security categories, sustainability, or location or other contextual data within the TBM system. Each expansion of contextual and relational data within TBM systems greatly enhances the breadth and depth of potential technology value creation, decision making, and the value conversations that are the calling and responsibility of today's TBM practices.

Change Management Databases (CMDBs) represent an ideal opportunity for integration, as they are common and widely leveraged data constructs throughout the IT Service Management (ITSM) and IT Operations function of many organizations, serving to aggregate assets and relationship data from other common sources (asset databases, application portfolios, discovery, etc) into a single view for purposes of change and configuration management. Great CMDBs are often regarded as a key source of truth for technology operations and support, and successful integration of CMDB and TBM systems is often a top priority for TBM practices.

ServiceNow is a widely deployed platform of choice across the industry for operations and ITSM, and as such there is a persistent demand among TBM practitioners for guidance and best practices specific to integrating a range of valuable data in a ServiceNow platform, with their TBM systems. In recent years ServiceNow has increasingly committed to leveraging and maturing the Common Services Data Model (CSDM), a common data architecture to manage the increasingly complex digital landscapes of modern businesses. This creates a key opportunity for TBM practices to establish and manage visibility across numerous tables and data elements within their TBM systems with a single integration effort.

This document provides guidance and best practices for integrating ServiceNow's CSDM with standard purpose-built TBM systems which often leverage master data sets to automate TBM analysis and reporting, including recommended mappings from elements of the CSDM to the TBM Taxonomy. Both the TBM Taxonomy and ServiceNow CSDM undergo regular revisions and updates, and readers are encouraged to check the TBM Councils community resource center to ensure they have the latest version of this guide which is maintained by the TBM Council's Standards Committee. Sections of this document can be quite technical and are meant to support the needs of system administrators and operations. However other sections provide Finance and TBM professionals with additional guidance and insight to better leverage their investments in ServiceNow and purpose-built TBM systems, to enrich their data to the benefit of the business.

1 ServiceNow® Common Service Data Model (CSDM)

The ServiceNow Common Service Data Model (CSDM) is a conceptual model authored and maintained by ServiceNow. The CSDM is a Configuration Management Database (CMDB) framework. The data model provides guidelines for using base tables and relationships within ServiceNow CMDBs. Many other ServiceNow products depend on data referenced by the CSDM.
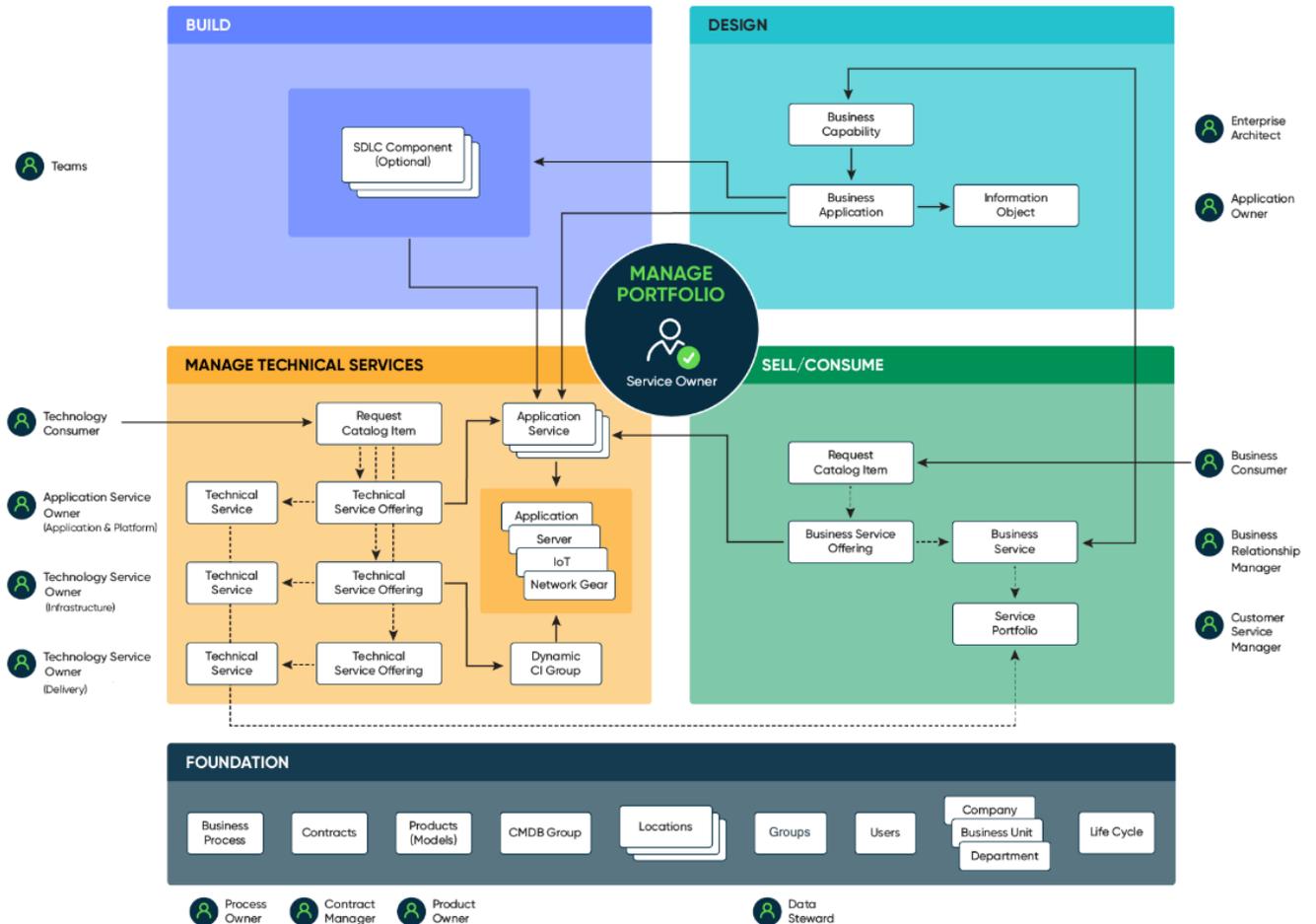
CSDM consists of five domains that group related artifacts:

1. **FOUNDATION** Domain: This domain includes generic master and user data artifacts such as companies, departments, users, locations, asset models, and business processes. These artifacts form the basic building blocks for other domains.

2. **DESIGN** Domain: Artifacts in this domain are used for managing the architecture and digital portfolio lifecycle. Examples include business applications, information objects, and business capabilities. These artifacts help organizations plan and design their digital solutions effectively.

3. **BUILD** Domain: The BUILD domain defines the components and configurations of business applications. It includes fine-grained APIs, microservices, scripts/code, settings, and other artifacts related to the development of applications.

4. **MANAGE TECHNICAL SERVICES** Domain: This domain focuses on artifacts managed and provided by IT for IT or those that comprise the IT infrastructure. It includes the service taxonomy, request catalog items, configuration items in the CMDB (Configuration Management Database), and environment-specific instances of business applications.

5. **CONSUME & SELL** Domain: This domain covers artifacts managed and provided for the business and external parties. Examples include the business service taxonomy and request catalog items. These artifacts enable organizations to define and deliver services to their customers or business partners.

Enterprises are recommended to use the relevant TBM content to populate the overlapping portion of both models and leverage other areas for their mutual benefit. This alignment will accelerate or improve your ServiceNow implementation, TBM adoption, and standardized practices.

Each enterprise's implementation of ServiceNow's CMDB may differ slightly, so the relevant TBM content and its applicability will vary from one organization to another.

---

2 Integration Guidance

Integration Guidance: Overview

The TBM model shown below on the left represents the scope of information captured. Unlike TBM, ServiceNow's CMDB excludes financial details (eg transactional entries). CMDB records may contain summary cost information from TBM or other sources. By itself, a CMDB is not designed to "cost out", price, recover, or plan for assets to achieve outputs like application, asset, or product TCO views. TBM models are not designed for operational management of infrastructure assets, applications, and services and therefore depend on extracted data (ideally) from CMDBs.
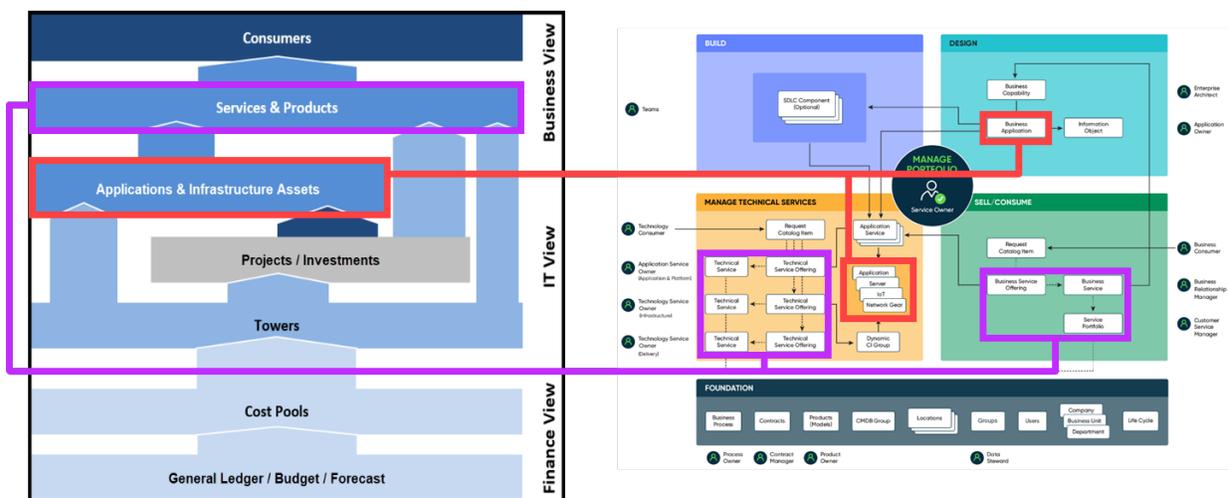

In the models above, areas enclosed by purple boxes contain data for Solutions and areas enclosed by red boxes contain data for Infrastructure and Applications.

The Solutions layer contains a company's Products and Services. In TBM, they are generically referred to as Solutions. This layer also places Solutions into a hierarchal or "family" grouping. Similar to the benefits of grouping used for chart of accounts and investment portfolios, grouping Solutions improves governance, accountability, and insights into the effectiveness of different areas of your enterprise.

TBM works best when integrated with other systems and processes. Consider the quality improvements and increased engagement of colleagues who leverage TBM insights into parts of your Technology organization that could not easily be achieved via other means. TBM relies on data from source systems of records to provide decision-makers with the most accurate information. It's no different when integrating TBM with a CMDB adhering to CSDM best practices.

The graphic below illustrates an example of data flow in a typical TBM model. Data flow begins with actual spend, budget, or forecast details. This information is separated into standard Cost Pools (eg Internal Labor, Software, Hardware) and Resource Towers (e.g., Application, Compute, Storage, Network). Next, data flows into the first area where TBM and CSDM overlap...infrastructure and applications.
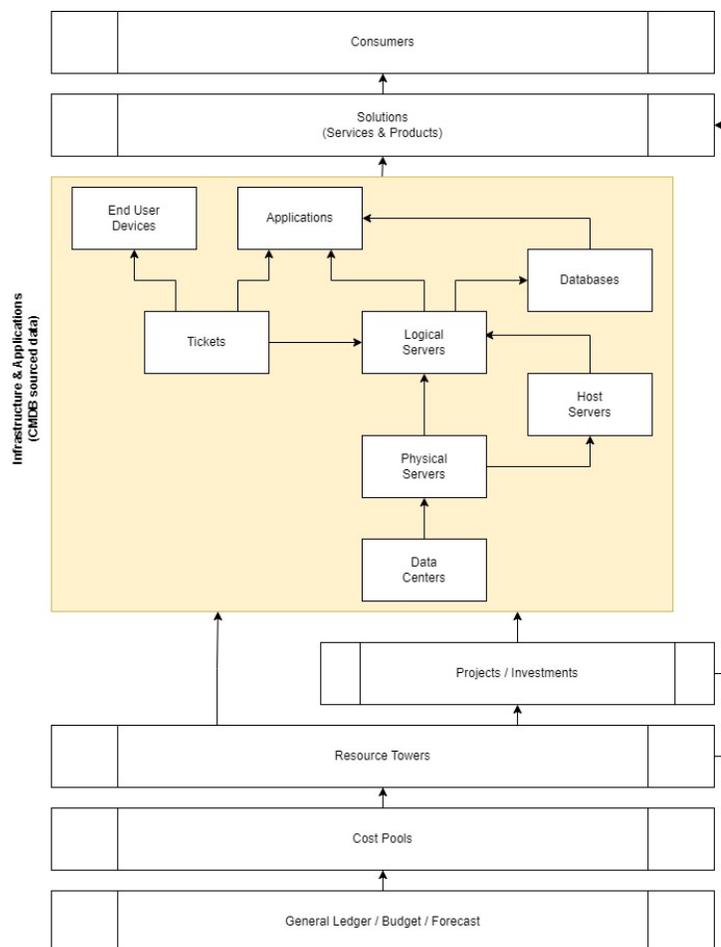
Infrastructure data is extracted from the CMDB and loaded into the TBM tool to identify:

1. tracked asset population types (eg servers, laptops, databases, services, products)

2. asset details for each population type

3. relationships between the assets and applications

Extracted data is also leveraged to determine the best method for allocations. Examples of allocations from Resource Towers include:

*   "Servers" Sub-Tower costs are allocated to Physical Servers and weighted by CPU.

*   "Application Support & Operations" Sub-Tower costs are allocated to Tickets referencing an app and weighted by time worked.

*   "Database" Sub-Tower costs are allocated to Databases and weighted by database size.

*   "Business Software" Sub-Tower costs are allocated to Applications targeting the application related to the tagged software license.

In practice, the appropriate allocation strategies are determined by your TBM team. These examples are for illustrative purposes and do not represent the full options available from any specific TBM tool.
After infrastructure and applications, data flows onto supported Solutions (inclusive of Services and Products) before moving onto Consumers.

If you're including projects or investments in your model, data should flow from Resource Towers to the appropriate project/investment before moving onto the affected infrastructure, application, solution, or consumer.

Other data used by TBM models and typically available from a ServiceNow CMDB include:

*   Solutions (eg Services, Products)

*   Service Portfolios

*   Consumers

In the next sections of this document, you will be provided with steps to obtain and integrate ServiceNow CMDB data for your TBM solution.

Integration Guidance: Obtaining Data

Work with your ITSM Team (or platform owner) to create and grant a ServiceNow account read access to the tables mentioned in the illustration below.

CSDM Object Name	ServiceNow Table Name	TBM Alignment	Comments
Business Application	cmdb_ci_business_app	Applications	Logical (normalized) listing of all applications throughout the enterprise (including Technology).
Incidents Tickets	incident	Tickets	Combine with other ticket data.
Requests Tickets	sc_request	Tickets	Combine with other ticket data.
Change Tickets	change_request	Tickets	Combine with other ticket data.
Problem Tickets	problem	Tickets	Combine with other ticket data.
Tasks	task_ci	Tickets	Combine with other ticket data.
Relationships	cmdb_rel_ci svc_ci_assoc	SEE COMMENTS	Used to identify relationships to other assets, applications, and solutions. Not used as an object in TBM models.
Computers	cmdb_ci_computer	End User Devices	Any computer not tracked as a server is considered an end user device.
Servers	cmdb_ci_server	Servers	
Databases	cmdb_ci_database cmdb_ci_db_instance	Databases	
Data Centers	cmdb_ci_datacenter cmdb_ci_computer_room cmdb_ci_zone cmdb_ci_rack	Data Centers	
Other Infrastructure Cis	* - various	(various)	Additional assets can include network components, storage, mainframes, and others. Identify and use tables that meet your needs.
Technical Service	cmdb_ci_service_technical	Solution Name	Register standard TBM Solution Names for technical solutions into this CMDB table.
Technical Service Offering	service_offering	Solution Offering	Filter data rows where [Service Classification] equals "Technical Service".
Business Service	cmdb_ci_service_business	Solution Name	Register standard TBM Solution Names for business solutions into this CMDB table.
Business Service Offering	service_offering	Solution Offering	Filter data rows where [Service Classification] equals "Business Service".
Service Portfolio	service_portfolio	Solution Type & Category	Register standard TBM Solution Category & Type into this CMDB table.

Other data to consider adding into your TBM model to support your organization's TBM objectives:

ServiceNow Table Name	TBM Alignment	Comments
alm_asset	Fixed Assets	Recommend obtaining from Financial system and augment with ServiceNow data.
cmn_location	Locations	
cmn_costcenter	Cost Centers	Recommend obtaining from Financial system and augment with ServiceNow data.
cmn_department	Departments	Recommend obtaining from Financial system and augment with ServiceNow data.
cmdb_ci_netgear	Network	
cmdb_ci_storage_device cmdb_ci_storage_volume cmdb_ci_msd cmdb_ci_storage_server	Storage	
cmdb_ci_mainframe cmdb_ci_mainframe_lpar	Mainframe	
svc_ci_assoc	Additional Relationships	Usually not needed.
cmdb_ci_app cmdb_ci_app_server	Middleware	

Data extracted from these tables may benefit your TBM model, but are typically not required for TBM success:

- Application Services
  ServiceNow table names = cmdb_ci_service_auto & cmdb_ci_service_discovered

- Application (configuration item records)
  ServiceNow table name = cmdb_ci_appl

- Software Product Model
  ServiceNow table name = cmdb_software_product_model

NOTE: May contain additional applications not registered in the Business Application table. The table is available from ServiceNow's Software Asset Management product and not included as a standard CMDB table.

Access to export data from the tables into your TBM tool is granted by following these steps:

1. Create a new role on your ServiceNow platform with the "snc_platform_rest_api_access" role.

2. Create a new non-administrative account and assign it the new role created in step #1.

3. Enable the [Active] option for Table API access control.
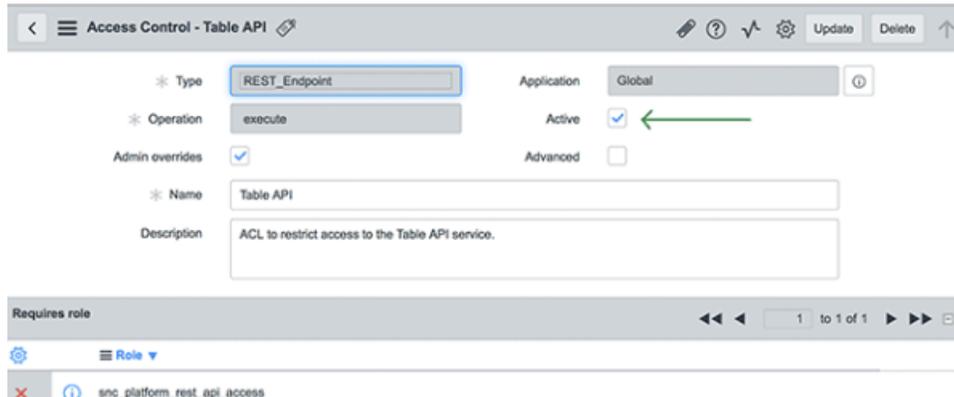
4. Apply read permissions for each ServiceNow table listed above (including others not specifically listed and used to support your TBM model).
   a. Create a read access control level and assign it to the role created in step #1. Leave the dropdown list control (located to the right of the table name) value set to "None". This will grant access to read the table.
   b. Create another read access control level and enter an asterisk into the dropdown list control (located to the right of the table name) to grant access to read all fields in the table.

After obtaining login information, verify access by using Postman, a web browser, or other method to test connection to each of the tables. Then, set up data import jobs to obtain snapshots of ServiceNow data as of the first of each month. For some tables (e.g., tickets), consider using other criteria to limit the data rows to those with activity during the past month.

To determine where to start flowing data out from the Resource Towers in your TBM model, review cost volumes for each Resource Tower.

Application	Compute	Data Center	Delivery	End User	IT Management	Network	Output	Platform	Security & Compliance	Storage
$5,633,266	$2,341,526	$1,038,315	$281,939	$984,714	$737,581	$868,757	$125,170	$645,489	$542,332	$1,228,671

In the example above, the "Application" and "Compute" towers have the largest spend, so focus on building the Applications object, Tickets object, and Servers object in your TBM model. Then, leverage extracted relationship data to help identify which servers' cost should be directed to supporting applications.

As you complete parts of your TBM model, revisit the Resource Towers to determine the next area to build out by looking for the next largest spend volume. If a Resource Tower's cost is too small compared to all others (eg Output), consider skipping its build out for a later iteration when advanced maturity is desired. When iterations are complete, you will find all Resource Towers' costs flow into an appropriate object representing an infrastructure asset, application, project, or solution (where products and services are found).

Integration Guidance: Applications

ServiceNow's CMDB contains three application record types:

1. **Business Application**
   (cmdb_ci_business_app)
   The table contains a logical listing of applications. A single record represents all software and infrastructure environments configured to provide business functionality. Business Applications records are not directly linked to Incidents, Problems, or Changes, and are not version specific. For this reason, they are considered non-operational records. Examples of Business Application records are "SAP Concur" and "Informatica Test Data Management".

2. **Application Service**
   (cmdb_ci_service_auto)
   A logical representation of a deployable Business Application and all related software and infrastructure assets. Examples of Application Service records are "SAP Concur – Prod", "SAP – Concur – Dev", "Informatica TDM – Prod – NA", "Informatica TDM – Prod – EU", and "Informatica TDM – Dev".

3. **Application**
   (cmdb_ci_appl)
   A Configuration Item (CI) record type representing a deployed instance of an Application Service. The installed bits & bytes. For each deployment of the Application Service, a separate CI record is created and related to the server or end user device asset that it's installed on.
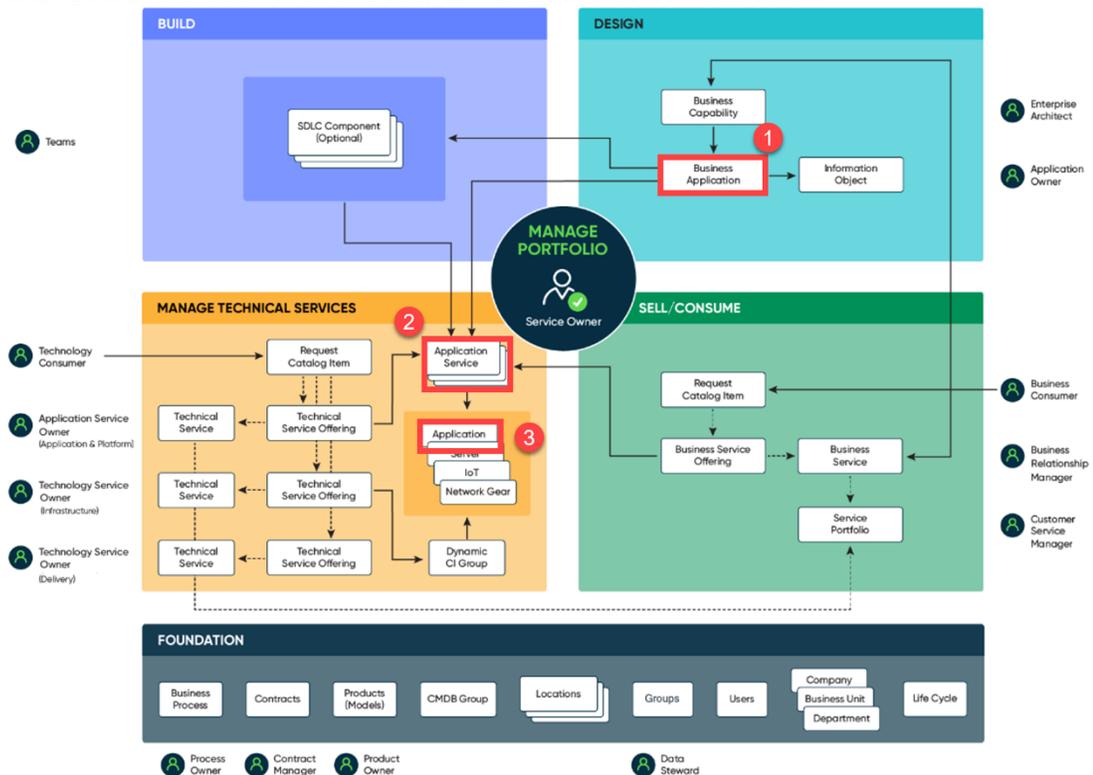
Applications represented in TBM models are identified by querying the Business Application (cmdb_ci_business_app) table. Underpinning infrastructure assets are identified from the CMDB's Relationships table. It may take some time and advanced skill to query through the Relationships table's data.

Referencing the illustration below, the following steps outline how to identify the Business Application an underpinning server supports:

- Identify the Server's Configuration Item.
- Find the Application's Configuration Item related to the Server's Configuration Item.
- Find the Application Service related to the Application's Configuration Item.
- Find the Business Application related to the Application Service.
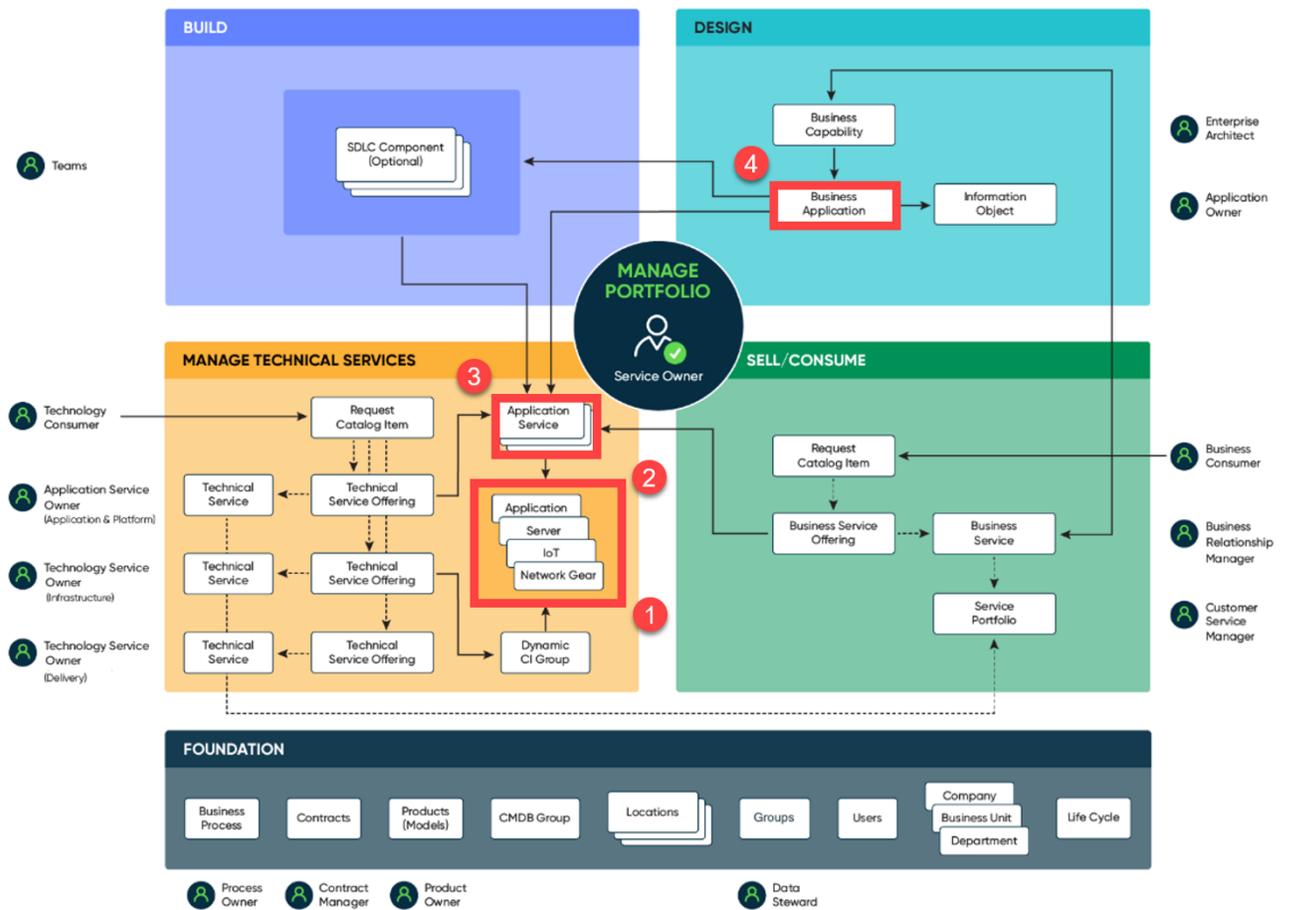
Alternatively, consider working with your ServiceNow administrators to create and provide access to custom reports designed to show relationships between Business Applications and the assets in your TBM model. Data from custom reports can be exported instead of or in combination with the more detailed Relationships table's data.

The illustration below shows an example of the "SAP Concur" application, two deployment packages, two supporting production environment servers, and the roll-up into a service portfolio. Querying the tables and identifying the relationships to each will allow you to identify the application, the infrastructure assets, and the service/product portfolio the application belongs to. Not shown in the illustration are the additional Application Configuration Items associated with the "SAP Concur – Dev" Application Service.

The colored tables represent data directly used in a TBM model. Notice the Application table is not used. This may seem odd since a TBM model includes an Applications object, but in ServiceNow the Application table is a collection of Configuration Items (records representing an installed copy of the application) and not a logical listing of applications.
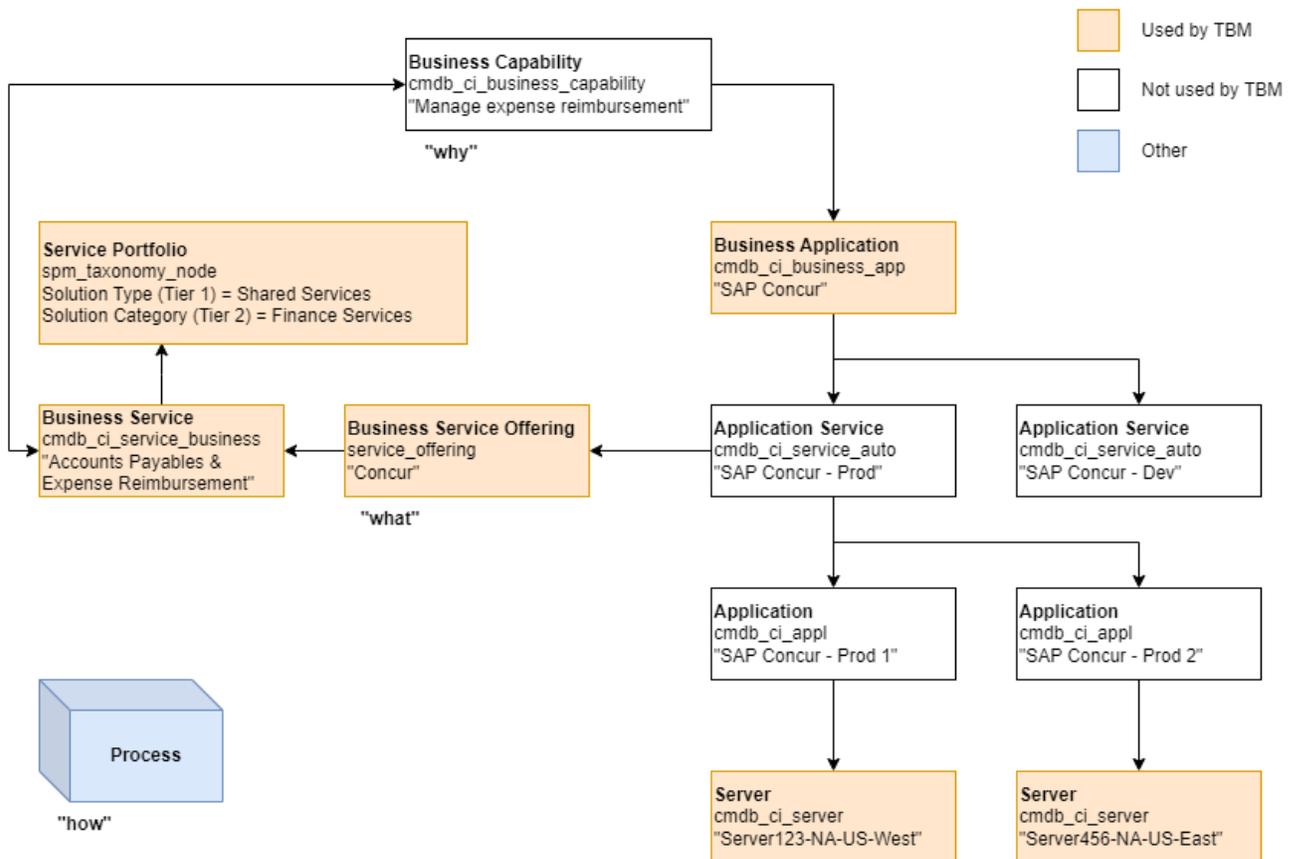
Data from the uncolored tables above are typically excluded from TBM tools. Although a CMDB may need these tables to perform its functions a TBM model only needs data to represent a population (eg Applications, Servers, Data Centers) and any supplementary data necessary to establish relationships, cost drivers, or enrich the population with additional metadata. For example, TBM models generally don't need to export data from the [cmdb_ci_aix_server] because it would have sufficient information from [cmdb_ci_server].

In the graphic above, notice the additional monikers "what", "why", and "how" attributed to Business Service Offering, Business Capability, and Process, respectively. To create better understanding about the relationship between these domains, think of the service offering as "what" is consumed, the capability as "why" the offering consumed, and the process describing "how" the offering enables the capability.

Integration Guidance: Solutions

Before flowing costs into the Solutions layer, your TBM model should be loaded with your Solution Offerings (or your products and services). Remember, TBM generically refers to products and services as Solutions. The hierarchal structure of the Solutions layer is illustrated below.

Hierarchy

1. Type
    2. Category   — Standardized TBM Taxonomy
        3. Name

        4. Offering   — Internal Organization-specific Offering (custom-named offering)

Example

- Delivery
    - Operations
        - Event Management

            - Logging Analytics

The first three levels of the Solutions hierarchy, if not customized, are standard dimensions published from the TBM Council. The fourth level is populated with your Technology organization's Solution Offerings. In the above illustration, the fictitious company's "Logging Analytics" product is a Solution Offering and assigned to the standard "Event Management" Solution Name.

The latest standard Solution hierarchy details are available from the TBM Council's website: https://www.tbmcouncil.org/learn-tbm/tbm-taxonomy

Exploring the first two levels of the standard TBM Solutions hierarchy in the graphic below you'll see a separation of Business Solutions (colored in light blue on top) and Technical Solutions (colored in gray on the bottom).
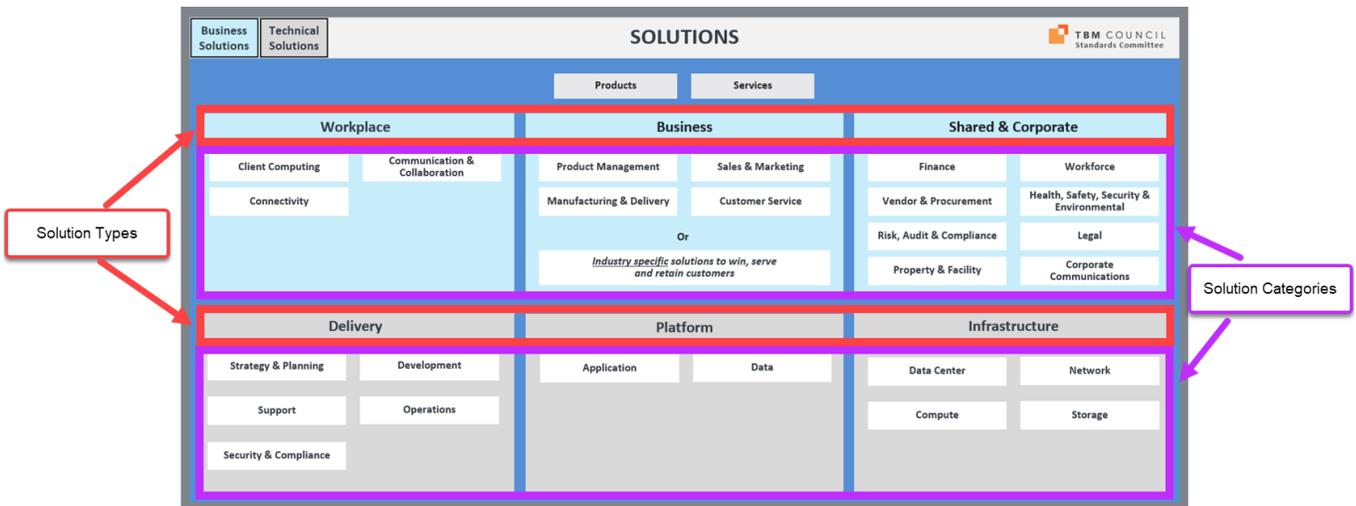
The below graphic shows the alignment of TBM's Technical Solutions into the Technical Services and Technical Service Offerings tables in the CMDB. It also shows the alignment of TBM's Business Solutions into the Business Services and Business Service Offerings tables in the CMDB.
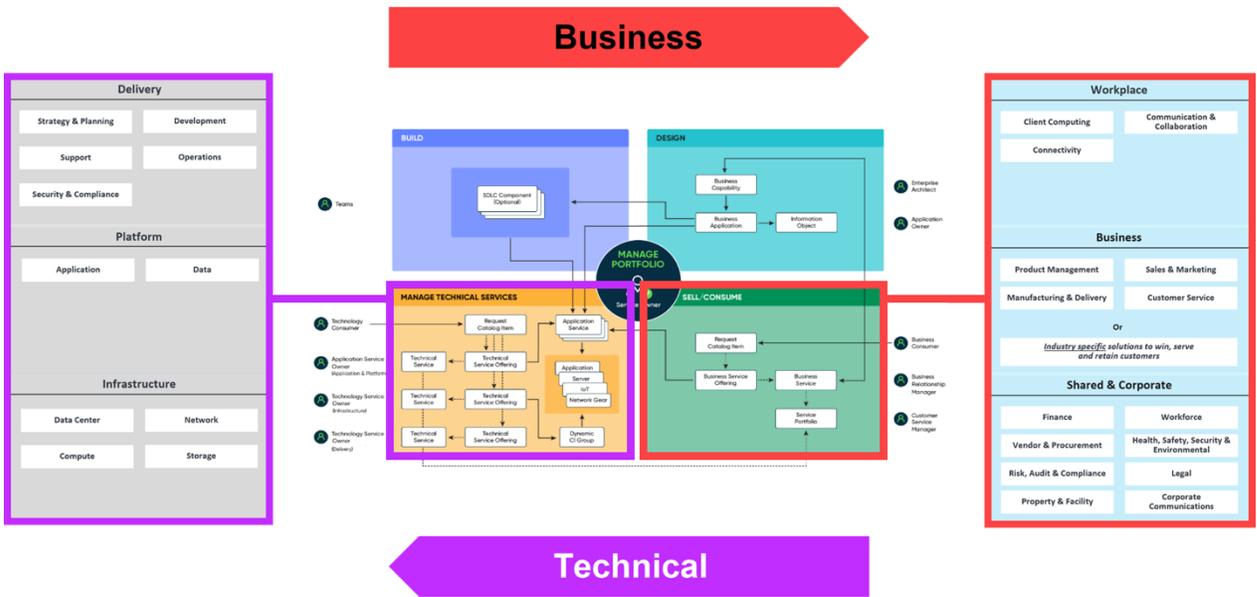

Looking more closely into the Technical Solutions (Delivery, Platform, and Infrastructure), we can see examples of a fictitious company's products and services along with their respective parent hierarchy levels. For example, the company's "Central help desk" service (registered in the CMDB as a Technical Service Offering) maps to the "Service Desk" Solution Name (registered in the CMDB as a Technical Service) contained in the "Support" Solution Category and rolling up to the "Delivery" Solution Type.
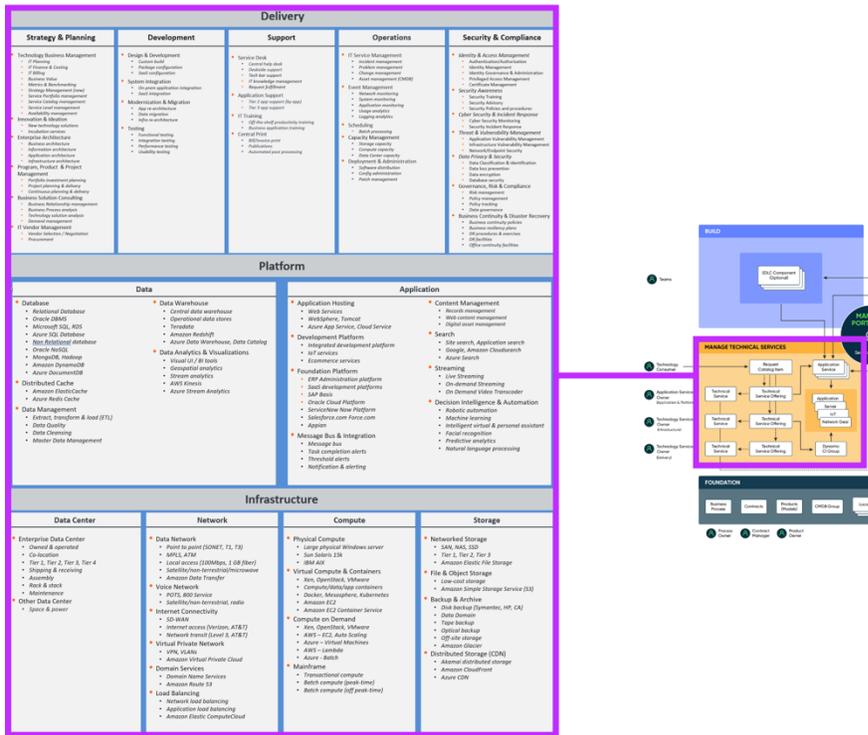
Here's another look at the CMDB's Technical Service Offering table populated with additional sample products and services and their relationship to the parent Technical Service table's records.

Technical Service Offering [service_offering] table
Offering Name
Central Help Desk
Deskside Support
Tech Bar Support
IT Knowledge Management
Request Fulfillment
Tier 2 App Support
Tier 3 App Support
Business App Training
Bill/Invoice Printing
Publications
Automated Post Processing

Technical Service [cmdb_ci_service_technical] table*
Service Name
Service Desk
Application Support
IT Training
Central Print

* Available as of the Tokyo (2022) release. If on earlier version, use the "cmdb_ci_service" table with appropriate filter to differentiate from Business Solutions.

TBM Solution Taxonomy:

Category = Support

Type = Delivery Solutions

Looking at this from the other side, the company's "Standard desktop" service (registered in the CMDB as a Business Service Offering) maps to the "Computer" Solution Name (registered in the CMDB as a Business Service) contained in the "Client Computing" Solution Category and rolling up to the "Workplace" Solution Type.
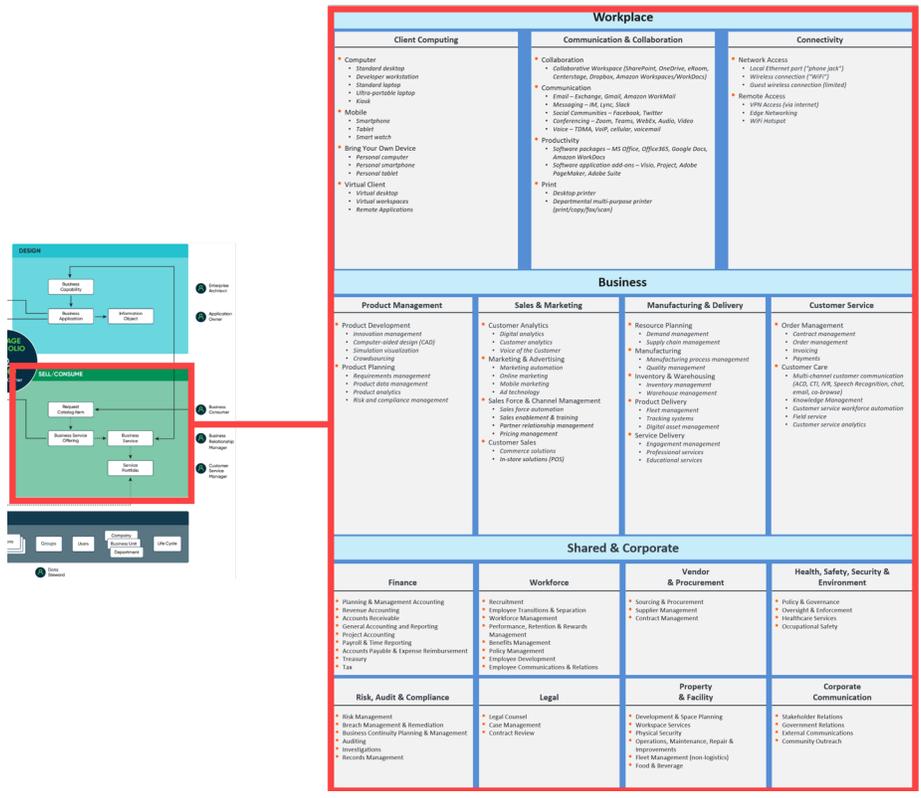
And, here's another look at the CMDB's Business Service Offering table populated with additional sample products and services and their relationship to the parent Business Service table's records.
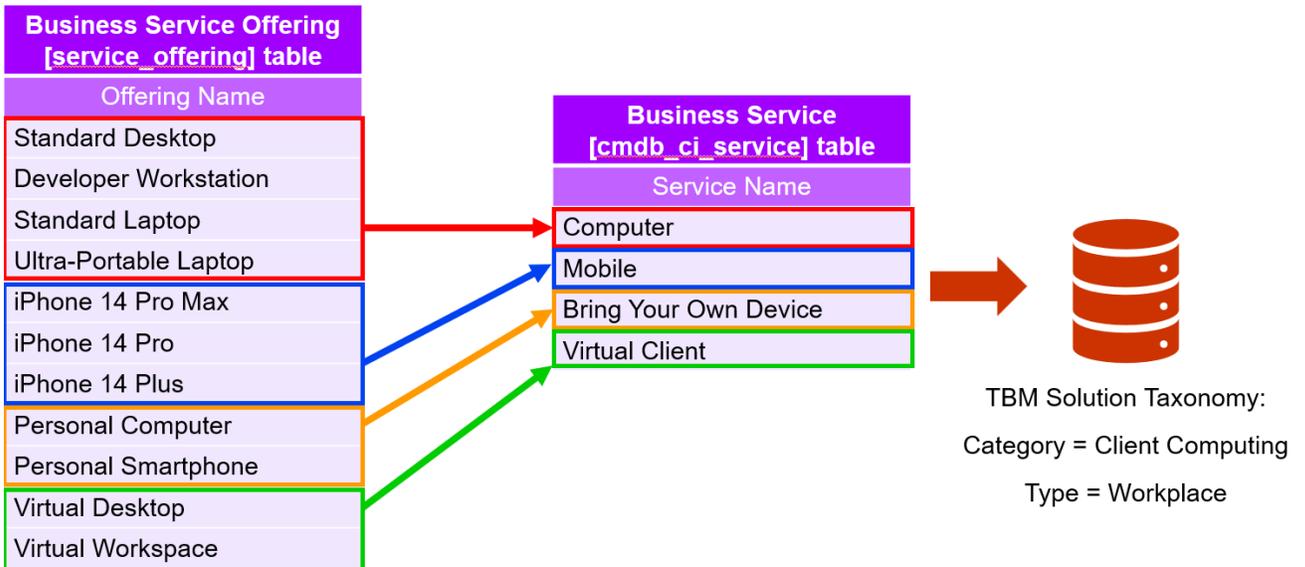
In a typical TBM model for a full-service Technology organization, the Solutions layer will receive cost flows from applications, end user devices, projects and investments, or Resource Towers. Costs may flow into the Solutions layer from other assets, so take the time to map appropriately for your company's needs.

If you have not established an inventory of your products and services, start with areas with the largest costs in your TBM model's Applications & Infrastructure layer, Projects & Investments, and any unmapped Resource Towers. If your Applications represent the bulk of costs, focus on applications with the greatest cost volumes and map them to Solution Offerings. In some cases, a Solution Offering can be named the same as the Application underpinning it. Regardless, an Application record is separate from a Solution Offering record. This is also true in a ServiceNow CMDB adhering to CSDM best practices.

You may notice some areas of the standard TBM Solutions hierarchy are not used. This is expected since each company's Technology organization may not have a product or service aligning to standard options. It's also possible you may have unmapped services and products that could not align with a standard TBM Solution element. In such cases, you'll want to extend the Solutions hierarchy to match the needs of your company. More about that is described in the next section.

3 Other Considerations

Other Considerations: Expanding the Standard TBM Solutions Taxonomy

This document provides guidance to integrate your solutions into the TBM Solutions Taxonomy. But what happens if you're unable to map your solution to one of the standard options found in the TBM Solutions Taxonomy?

In these instances, consider expanding the TBM Solutions Taxonomy using one or both of the following options to meet your organization's needs:

1. Incorporate one of the TBM Taxonomy Vertical Extensions. As of this document's publish date the following extensions are available for download from the TBM Council (www.tbmcouncil.org/learn-tbm/tbm-taxonomy):
   - State Government
   - Insurance
   - Banking
   - Healthcare
   - Manufacturing

2. Create new elements to reflect your organization's unique solutions.

   It's unlikely you would create a new Solution Type, so the best place to start is to classify the type of your unique Solution Offering. In most cases, your Solution Offering would be best placed somewhere within the "Business" Solution Type.
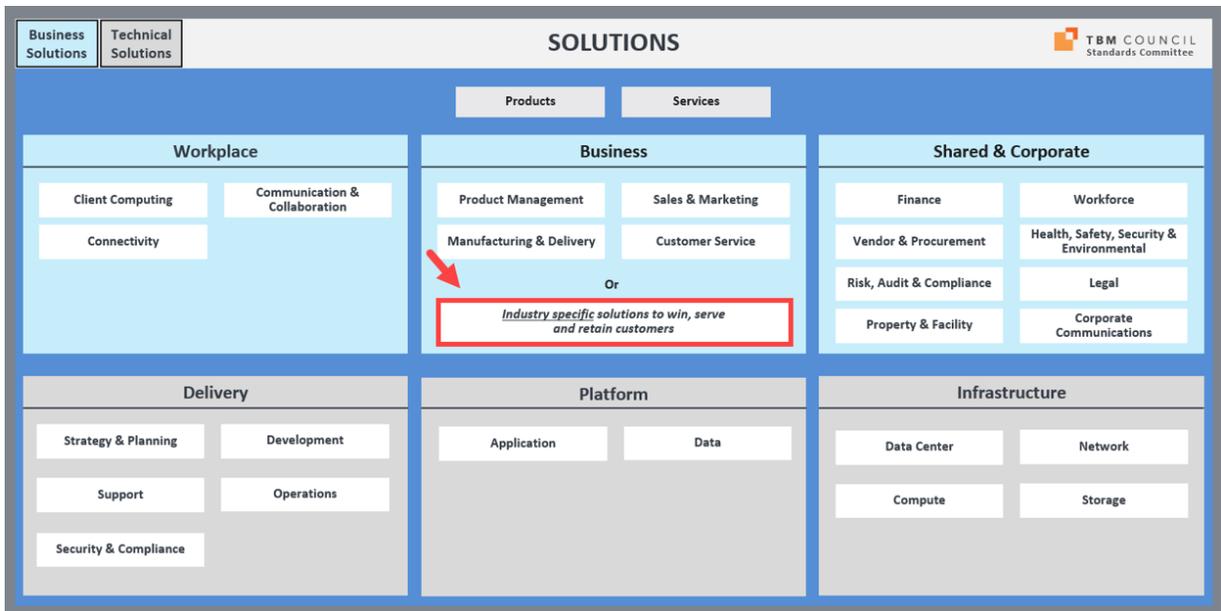
Many of the TBM Taxonomy Vertical Extensions add new Solution Categories and Solution Names in the "Business" Solution Type while some also extend the "Shared & Corporate" Solution Type.

Before we continue, let's make sure everyone is aware of the tiered hierarchy of the Solutions Taxonomy:
Level 1 = Solution Type
Level 2 = Solution Category
Level 3 = Solution Name
Level 4 = Solution Offering

Here's another way of looking at it:

The Solution Offerings are shown as the items offered to the organization to consume. Think of the Solution Offerings as the items you see on a restaurant menu. Each item appearing on the menu would appear within a section (eg Appetizers, Soups, Salads, Main, Dessert, Beverages). In the same way, your organization's Solution Offerings (when associated to the TBM Solutions Taxonomy) will appear as a member of a singular Solution Name. In the above example graphic, Microsoft SQL is a member of the "Database" Solution Name rolling up into the "Data" Solution Category and rolling up into the "Platform" Solution Type.

Now, let's step through how a law firm may approach extending the "Business" Solution Type. First, the law firm identifies categories of services it provides to their clients which we'll use as the new extended elements for the Solution Category tier since standard options are not specific to law firms:
- Corporate Law
- Private Law
- Litigation & Dispute Resolution
- Administrative & Government Affairs

Next, we need to consider the groups of services within each category. Exploring the "Litigation & Dispute Resolution" Solution Category we find the following candidates for Solution Names:

- Alternative Dispute Resolution
- Arbitration
- Commercial Litigation
- International Dispute Resolution
- Mediation
- Supreme Courts and Appellate

Lastly, we can now identify the individual service offerings performed and associate them as Solution Offerings to their respective Solution Names that may look something like the following.

The key to incorporating the TBM Solutions Taxonomy into your organization is to allow it to grow when and where needed to foster success. And, don't forget to add your extensions into your CMDB and register relationships to applications and other assets.

Other Considerations: Service Portfolio in ServiceNow's CMDB

Earlier, we described where to register Solution Offerings and Solution Names into your CMDB. ServiceNow's CMDB also supports registering your TBM Solution Categories and Solution Types via Service Portfolio Management. Follow the steps below in your CMDB to achieve this:

1. Create a new portfolio by navigating to **All > Service Portfolio Management > Service Portfolios**.

2. Complete and submit the form with the new portfolio's **Name** set to "Solutions Portfolio" (or your preferred name for the top-most level).

3. Create three Taxonomy Layers by navigating to **Service Portfolio Management > Taxonomy Layer Definitions**.

    a. For the first layer, set the form values to the following and submit it:

    Name = "Solution Type"

    Order = 100

    Service Portfolio = "Solutions Portfolio" (or the alternate name you defined in step 2)

    b. For the second layer, set the form values to the following and submit it:
    Name = "Solution Category"
    Order = 200
    Service Portfolio = "Solutions Portfolio" (or the alternate name you defined in step 2)

4. For each TBM Solution Type (and any custom Solution Types crated), create a new Taxonomy Node by navigating to **Service Portfolio Management > Taxonomy Nodes**. Example form values to use for a "Shared Services" Solution Type node:
   Name = "Shared Services"
   Service portfolio = "Solutions Portfolio"

Taxonomy layer = "Solution Type"
…fill in other fields appropriately

5. Repeat step #4 for each remaining TBM Solution Type changing the Name to match the TBM Solution Type's name.

6. For each TBM Solution Category, create a new Taxonomy Node by navigating to **Service Portfolio Management > Taxonomy Nodes**. Example form values to use for TBM Solution Categories found in the "Shared Services" Solution Type node:
Name = "Finance Services"
Service portfolio = "Solutions Portfolio"
Taxonomy layer = "Solution Category"
Parent = "Shared Services"
…fill in other fields appropriately

7. Repeat step #6 for each remaining TBM Solution Category changing the Name to match the TBM Solution Category's name and the Parent to the related TBM Solution Type.

When done, return to **All > Service Portfolio Management > Service Portfolios** and click on the "Solutions Portfolio" link to confirm all Solution Type and Solution Category records are members of the portfolio. For reference, populating the service portfolio with standard TBM Solution Taxonomy values should take approximately 30-45 minutes.

To connect a Business/Technical Service into the new portfolio, edit the Service record in your CMDB and define the following fields:

Service portfolio = "Solutions Portfolio" (or your preferred name used)

Taxonomy node = The name of the TBM Solution Category node

Afterwards, the roll-up of computer related Service Offerings may look similar to the graphic below. For example, the "Standard Desktop" Service Offering rolls up to the "Computer" Service, onto the "Client Computing" Solution Category (layer 2 of your new service portfolio structure), and onto the "Workplace" Solution Type (layer 1 of your new service portfolio structure). The CMDB tables corresponding to the service portfolio elements are shown to the right of the graphic.
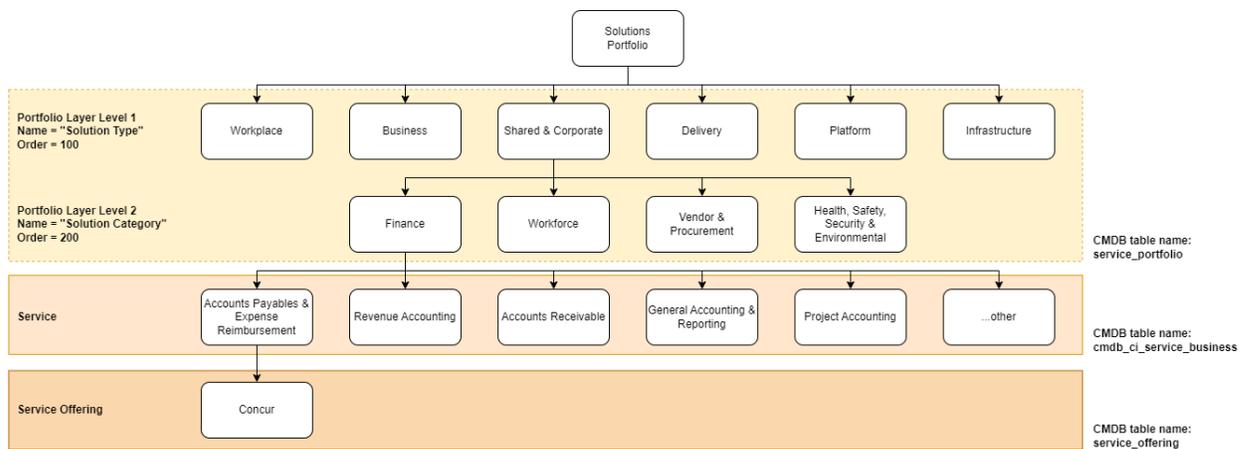
Incorporating your TBM Solutions hierarchy into your CMDB will ensure perfect alignment between it, your TBM program, and all other systems and processes. When creating custom Solution Categories or Solution Names, be sure to add entries into the appropriate area of your CMDB:

- New Solution Type or Solution Category => Go to Taxonomy Nodes in CMDB
- New Solution Name => Go to Services in CMDB
- New Solution Offering (inclusive of new products and new services) => Go to Service Offerings in CMDB

By leveraging TBM's Solutions hierarchy, your ServiceNow CMDB will be more complete and provide more value...faster!

4 Additional Guidance

Incorporate the following into your TBM strategies when integrating with a ServiceNow CMDB following CSDM best practices:

1. Register your company's products and services into the appropriate Technical Service Offering and Business Service Offering tables. Identify which table is the best fit by mapping your product and service to an existing TBM Solution Name and determine if it rolls up into a Business or Technical classed Solution Type. For example, an "Email" service would likely fall within the "Workplace" Solution Type…a Business class type, so the "Email" service would be added as a Business Service Offering.

2. In your CMDB's Technical Service Offering and Business Service Offering tables, consider adding a Sub-Classification custom attribute (or other attribute) to define the record as a "Product" or a "Service". This will help distinguish your CMDB's Service Offering record as a product or service.

3. In TBM, products and services are generically referred to as "Solutions" and found in the CMDB's Technical Service Offering and Business Service Offering tables.

4. Any application represented as a service should minimally include the following record types:
    Business Application (the primary record of the application)
    Application Service (a conceptual representation of a deployable application instance)
    Service Offering (the consumable view of the application…name can match the Business Application record)

5. Treat Applications as part of the Infrastructure domain not part of the Solutions Taxonomy (where Services and Products are found) because Applications underpin Solutions.

6. Retain your product hierarchy, if established, and create additional mappings of your products into the TBM Solutions Taxonomy.

5 Appendix

TBM Definitions

Additional TBM definitions are available in the latest TBM Taxonomy publication at the following web address: https://www.tbmcouncil.org/learn-tbm/tbm-taxonomy

Application

Identifiable software or tightly coupled software components providing functions required by a Solution. An application is ran or hosted on one or more Servers or Clients. In a CMDB, an application is a component of one or more Solutions. An application is not equivalent to a Solution, but can be a component of a Solution of the same name.

Product

An alternative label used for a Service. Typically, Product is used by Technology organizations who have adopted agile or DevOps methodologies.

Service

The means of delivering value to customers by facilitating outcomes customers want to achieve without ownership of specific costs and risks nor awareness of underlying resources and processes needed. Services can comprise of none, one, or many Applications and/or other Services. An Application is not a Service, but may be a component of a same-named Service.

Solution

A generic reference to a Service or Product.

ServiceNow Definitions

Additional definitions from ServiceNow applicable to its platform are listed below. We find these terms apply more in describing structures of the ServiceNow platform than to the broader industry.

Application
Any deployed program, module, or group of programs, that is designed to provide specific functionality on a compute infrastructure.

Application Service
A service type that is a logical representation of a deployed system or application stack.

Business Application
Represents all software and infrastructure environments configured to provide business functionality.

Business Service
A service type that is published to business users and it typically underpins one or more business capabilities.

Technical Service
A service type that is published to service owners and typically underpins a business or application service.

About the TBM Council

Founded in 2012, the Technology Business Management (TBM) Council is a nonprofit business entity dedicated to advancing the discipline of TBM through education, standards, and collaboration. Governed by an independent board of both global and regional business technology leaders, this diverse group represents some of the world's most innovative companies, including Mastercard, Wells Fargo, State Farm Insurance, Nike, Stanley Black & Decker, Equifax, ANZ Group, Commonwealth Bank of Australia, Adidas, Mercedes Benz, and more. The TBM Council provides best practices for leaders to leverage so they can react quickly to changing market dynamics and optimize cloud and agile strategies to deliver on business objectives.

Learn more and become a member at **tbmcouncil.org**

About the TBM Council Standards Committee

The Standards Committee, chaired by Atticus Tysen, SVP Product Development, Chief Information Security & Fraud Prevention Officer at Intuit, maintains and governs the TBM Taxonomy as well as the extensions and other deliverables created by the TBM Council Strategy Communities. As part of our standardization initiatives, the TBM Council Standards Committee hosts community open forums to share information and seek feedback.

Learn more at **tbmcouncil.org/get-involved/standards-committee**