CSDM 5

White Paper

Common Service Data Model

This White Paper provides ServiceNow best practice guidance on service-related definitions and service modeling within the ServiceNow AI Platform.

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CSDM Introduction

This document describes the **Common Service Data Model (CSDM) 5** reference architecture effort, as an incremental and expanded version from the CSDM 4 model. It is imperative to understand this data and delivery model as it will continue to evolve while we collectively expand ServiceNow products and capabilities to increase the value we provide.

At its core, the Common Service Data Model represents a standard and shared set of service-related definitions across our products and platform that will enable and support true service level management while providing prescriptive guidance on service modeling. These service-related definitions span the ServiceNow® product portfolio and the ServiceNow AI Platform®.

The data model is a framework across our products and platform that will enable and support multiple configuration and management strategies. Included are current practices related to the proper modeling of data using out-of-box (OOB) tables, references and relationships. Many ServiceNow products have a dependency on data within this data model.

Common Service
A standard and shared set of service-related definitions across our products and platform that enables and supports true service reporting and management.

Data Model
The data structure that supports ServiceNow and partner products on the platform that enables lifecycle management in support of multiple configuration strategies.

The scope of CSDM will continuously be extended to include prescriptive guidance in the use of the data model that will be future proof.

Note: CSDM is NOT a product/SKU from ServiceNow. The guidance within CSDM is for the standardization and modeling of the CMDB that is used by multiple ServiceNow products. The CSDM is **NOT**…

- A process or implementation guide for ServiceNow products
- A set of reports
- Code to install
- An automatic fix for past implementations

Do I need to purchase a module/product to use the CSDM? ServiceNow provides all objects and core tables documented in CSDM as part of the shipping out-of-box (OOB) data model including free store apps, regardless of licensing. This is one of the principles for CSDM, but you may need to install plugins to add some data model elements.

How did we get here? CSDM started as a grassroots collaboration between the ITBM (now SPM), ITOM, and ITSM product teams to make sure the products worked together out-of-box, and to provide guidance to customers on what the common data model across the respective products areas looks like. The challenge identified by the product leaders in the spring of 2017 was a lack of common definitions for Services and a unified data model that naturally integrates the products we sell. Despite a single platform, several ServiceNow business units maintained siloed data models that restricted better together opportunities.

As a “highly configurable” platform, and in the absence of prescriptive guidance for our clients, both customers and partners invented their own frameworks and data models. Such customizations prevented product teams from delivering sophisticated cross-portfolio product use cases, every customer had a be-spoke data model.

The 2017 collaboration between ServiceNow product leaders resulted in CSDM 1 in 2018, which filled the need for prescriptive guidance from ServiceNow focused on providing both definitions and data model use guidance that would be supported OOTB (out of the box) across business units. The unified data model efforts reduced the complexity of defining services within the CMDB from 127 disparate classifications down to 3 commonly defined service types. CSDM was immediately championed by expert services teams, partners, and customers as “THE” best practice data modeling guidance, and was quickly identified by customers are a key differentiator for the ServiceNow AI Platform. The Common Service Data Model continues to grow as a key differentiator for what’s now referred to as “CSDM compliant” products.

Over time, CSDM guidance evolved to encapsulate greater visibility into digital systems and both the services that provide them as well as the services that depend upon them. CSDM has also grown to be used outside of ServiceNow customers, creating a following greater than ServiceNow customer ecosystem.

What is the vision for CSDM 5?

As ServiceNow and our customers focus on business digital transformation for the enterprise, so too should our data model guidance. The vision of CSDM 5 and later is to mature beyond our historical technology workflow focus. To provide a model that enables the delivery of sophisticated generative AI and business transformation for the enterprise. A unified model that supports all ServiceNow business units and their Better Together use cases. To establish an Enterprise & Operational Service Model (ESM) that encapsulates the Common Service DATA Model and a Common Service DELIVERY Model. To build the Digital Value Network.

To better understand the types or categories of services that are within scope for CSDM 5 we need to look at Digital Business Transformation and the relevant operational processes across a broad set of industry segments:

- **Service Life cycle**: End-to-end service model including design, configuration, operational status, change management, compliance, expansion, etc.
- **Service Operations & Delivery**: Service dependency map, operational impact analysis & impact including risk, service interruption, scale, throughput, etc.
- **Service Support Operations**: pro-active and reactive issue management, workflows and support
- **Service Consumption and Value outcomes**: Usage metrics, adoption, business KPIs

Recognizing different provider & consumer business models, we can apply them similarly/equally to the CSDM based Digital Business Transformation: B2E (Business to Enterprise/Employee), B2C, B2B, B2B2C, B2G, G2C, etc. Given these business models we can then identify the following horizontal and industry vertical segments & services that are considered in scope for CSDM 5:

- *Internal & external Technology Service Providers, incl. Technology, Telecom, media/content*
- *Enterprise Service operations: HR services, Legal Services, Finance, Supply Chain, Risk & Business Continuity*
- *Industry verticals: Healthcare, Financial Services, Manufacturing, Retail, Government & Public Services, Logistics & Transportation, public & private utility providers*

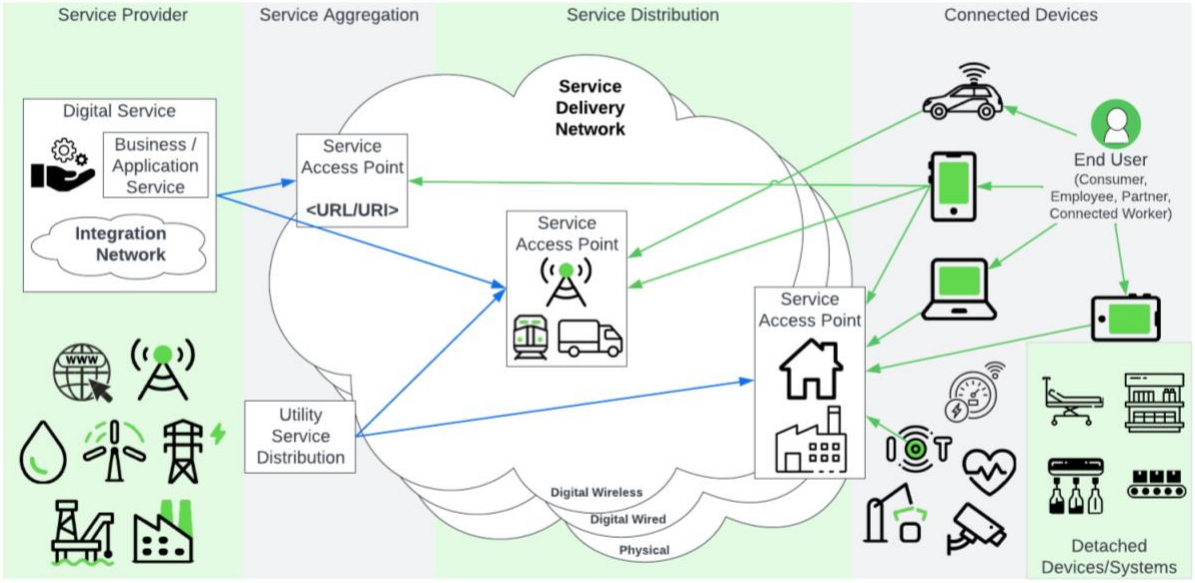


Figure 1. CSDM for the Digital Value Network.

Modeling the various service and business models together brings us to the generalized Business Value Network as shown in Figure 1. Grounded in value streams and customer value outcomes, services are provided and/or distributed over a Service Delivery Network (internal/external, public/private, wired/wireless) to mobile, home, and office/business-based users (employees and consumers) with their connected devices. With CSDM 5, service management expands from technology services to industrial, operational, and utility services connected to end-user, IoT, industrial, medical, production, transportation, etc. types of connected devices and products.

Many stakeholders contributed to the development of CSDM 5 guidance, including product architecture and engineering. Such involvement further cements how intrinsic the common data model and practices are across our growing product inventory and the markets served. Customers may still use their own data models as before CSDM existed, but future functionality and more advanced use cases that work across the many domains will expect to have CSDM-aligned data to work out-of-the box.

In Summary, the CSDM 5 vision is epic as it lays the foundation of Digital Business Transformation and the Digital Value Network for all providers and consumers.

What is new in CSDM 5?

CSDM 5 is an evolution of the model. With CSDM 5 we introduce expanded product modeling, new CMDB classes, data models previously locked behind licensing, a new domain, and some table label updates. These updates are provided through a combination of family and store releases. The intent of this CSDM 5 white paper is to advance the data model in support of digital transformation and the digital value network:

- Ideation & Strategy Domain – new domain
- Software Bill of Material (SBOM) – new capability
- System Component Model – new product model
    - Software Component Model – new product model
    - Service Offering Model – new product model
    - Product Feature – new capability
- Value Stream – new capability with the expanded Business Process model
- Teams – manage multiple contact groups for a CI
- Life Cycle Stage & Stage Status – new Stage & Statuses with definitions
- DevOps Change data model – available from the app store
- Service Instances – CI classes (model only)
- AI Data Model – CI classes (model only)
- Table Label Changes – Technology Management Service, Technology Management Service Offering, Service Instance

CSDM Key Principles

CSDM was created based on key principles that have evolved over time. These principles were established to guide decisions we make regarding what problems we tackle, entity names and definitions, how the model is implemented, and how CSDM is managed for the benefit of products that run on the ServiceNow AI Platform.

Our principles are:

1. **Simplified Concepts:** Concepts are represented in a simple, distinct manner to eliminate duplicates and confusion over data sources
2. **Designed for Reporting & Analytics:** A prime objective of CSDM is to support consistent analysis
3. **Prescriptive Relationships:** The prescribed relationships and references should be leveraged as the main approach to link CSDM tables
4. **Shared Data Model Collaboration:** CSDM identifies a data model that is to be shared across products in support of simplified concepts and collaboration. Collaborating with other product teams will achieve the best shared design
5. **Definitions:** Agreed upon CSDM definitions should be used wherever the table, reference, or attribute is used
6. **CSDM OOB Tables:** Shared CSDM tables will be provided out of box on Z-boot or free app store plugin by default
7. **Consistent Data Integrations:** Leverage prescribed technologies when integrating external data source to ensure data integrity
8. **CSDM Adoption:** Customer impacts per release will be limited by providing automation and guidance to accelerate CSDM adoption and transformations from previous versions if needed
9. **Data Governance & Process:** The presence of data in the model provides little value without governance and effective process to manage the veracity of the data
10. **Product Use Documentation:** Documented guidance on use and/or value of CSDM will be provided by each product team that references CSDM objects

CSDM End-to-End Service Life Cycle

The core model for CSDM 5 is represented in a portfolio-centric, **end-to-end CSDM Service Life Cycle** view. This view provides for greater understanding in the life cycle flow of data as it relates to CSDM domains. The historical view of CSDM is thus updated to represent these core domains as stages in the CSDM life cycle.

Figure 2 shows the new Ideation and Strategy domain as the initial stage of the CSDM Life Cycle. As in previous CSDM versions, the Foundational domain is the layer that supports all other CSDM domains.

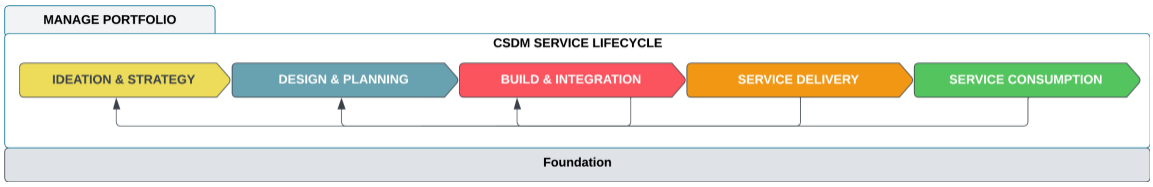


Figure 2 CSDM 5 End-to-End Service Life Cycle.

> **Imagine this**… You have a new *idea* or concept for the business. It may be a new product or an enhancement to an existing capability. Either way, that *idea* and its goals are captured and assessed as part of **Ideation & Strategy**. The idea might be shelved (the story ends, but is fully documented), or the business decides that your new idea aligns to its strategy and agrees to invest. Your idea now enters the **Design & Planning** stage where the details of the idea are enhanced for future development. Development happens in the **Build & Integration** stage where the idea becomes a deployable solution. After passing various gates, the idea is released for others to use as part of **Service Delivery**. Once delivered, your idea may be used by the masses while its value to the business is measured as part of **Service Consumption**. All along the path to consumption, your idea provides feedback to past stages to ensure delivery of the goals that were documented in **Ideation & Strategy**.

Ideation & Strategy

The **Ideation & Strategy** domain is a new CSDM domain. It represents the ideas, concepts, and considerations for both the creation of new/additional services as well as improvements and enhancements to existing (CSDM) services. These capabilities are part of Strategic Portfolio Management (SPM).

Design & Planning

The **Design and Planning** domain represents the tables currently used by Enterprise Architecture (EA, formerly Application Portfolio Management, APM).

Build & Integration

The **Build & Integration** domain represents the tables that provide visibility in the build and integration effort of digital products including, but not limited to, the DevOps process.

Service Delivery

The **Service Delivery** domain represents the overall end-to-end Service Delivery System that includes the infrastructure, technologies, integration patterns (infrastructure, systems, data, processes, dependency

models), service delivery networks, and operational models. Together, these items deliver the CSDM-compliant services to internal and external users and/or organizations.

Service Consumption

The **Service Consumption** domain identifies both internal and/or external business services that may be impacted by items in the Services Delivery domain. The service consumption tables are currently used by Service Portfolio Management and Customer Service Management (CSM).

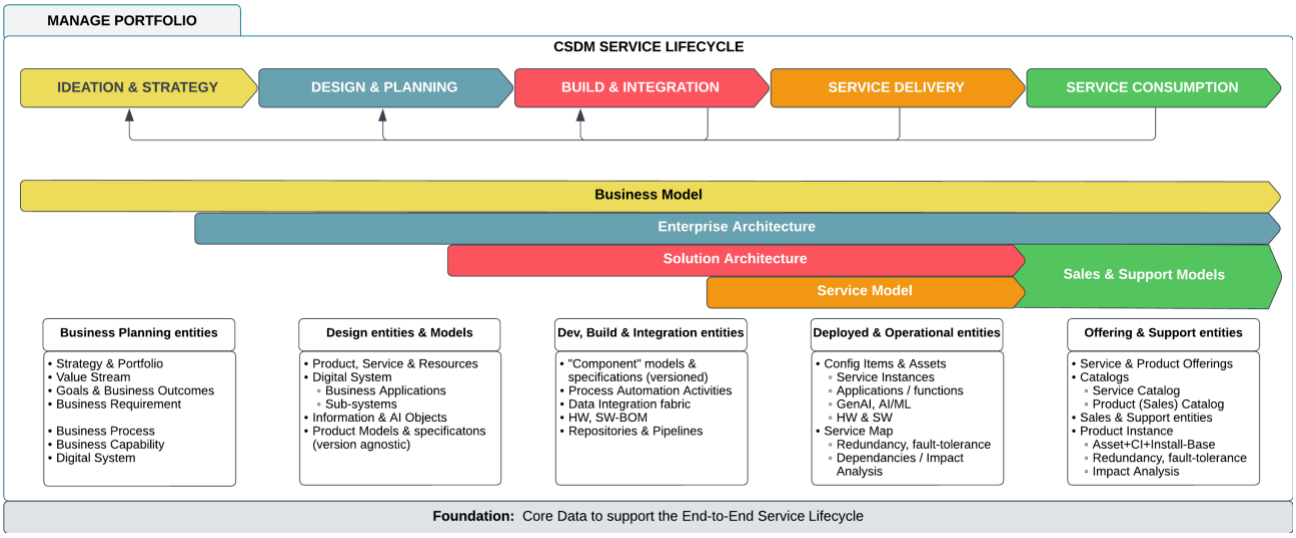


Figure 3. Domain entities across the seven CSDM domains.

It is important to understand that the domain-specific and foundational data entity categories support the end-to-end Life Cycle model *within* and *across* the domains. As shown in Figure 3, the Business Model as established in the Ideation & Strategy domain and represented by the Business Planning entities that drive the Enterprise (and/or Digital System) Architecture. The Enterprise Architecture, through design, planning, and product modeling, drives the Solution Architecture that gets built, integrated, and delivered. The Solution Architecture determines the various Service Delivery deployment and operational models as represented by the product CIs, Assets, and Install Base Items (IBI) as part of the Service (Dependency) map, ultimately in support of the Service Consumption domain for both internal and external service consumption.

CSDM Conceptual Model (historical view)

The **Common Service Data Model 5 Conceptual Model** (shown in in Figure 4) now includes seven domains whereby the Foundational domain supports all of the other domains.

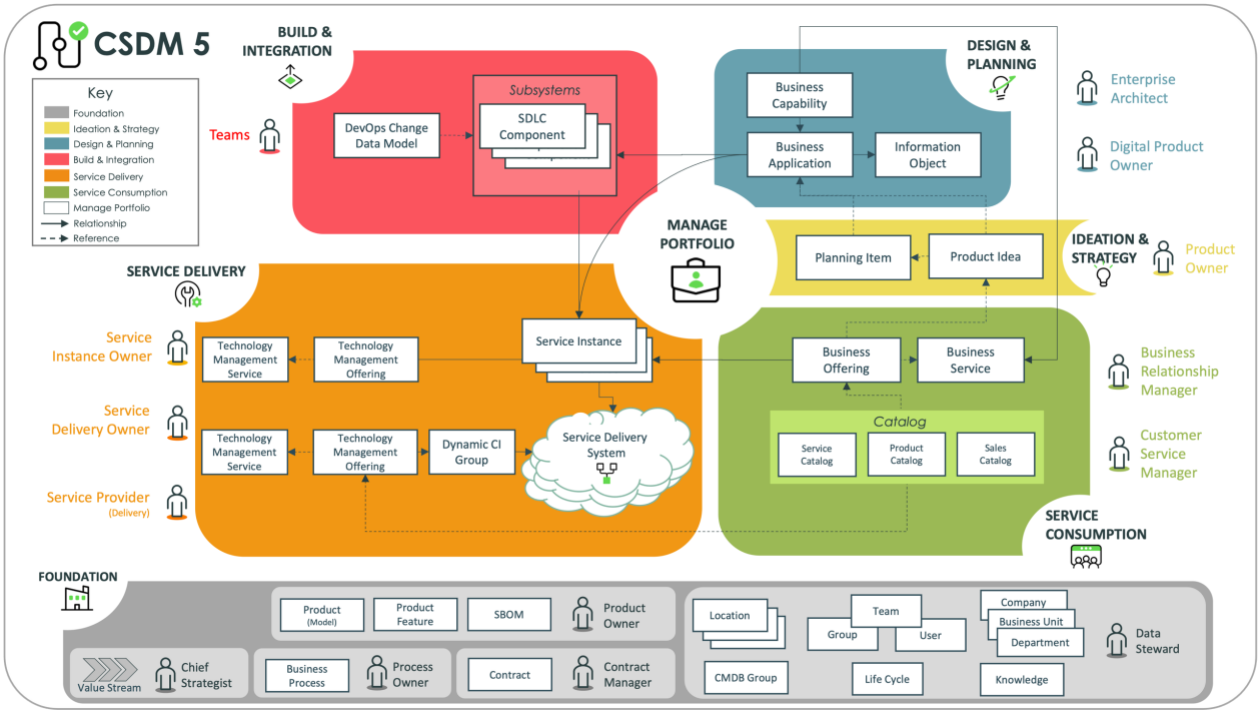


Figure 4. CSDM 5 conceptual model.

Detailed descriptions, conceptual-to-physical mapping, and mock-up examples of data model implementation guidance are provided later in this document.

While the intent is to provide prescriptive guidance, the model was designed with extensibility in mind so that customers could extend it as needed (for example, add “clinical” as a service classification type of a Service).

The various domains are how we describe and group the objects in the data model, largely based on common function. The functions help support how ServiceNow AI Platform products work and work together. Additionally, we introduce the concept of Manage Portfolios that encompasses portions of all five domains. This representation also accounts for how different roles and persona architypes may consume, view, and populate the model.

What is a Service?

> *"A service in CSDM or **CSDM Service**, is a business (or utility) service that provides a specific outcome or business value to its consumer, end-user or business. A CSDM Service has a standards conforming **Service Definition, Service Delivery model, Service Delivery Network model and Service Consumption model**, such that standardized digital workflows can be applied for build, integration, validation, change-management, operations, delivery, incident handling, remediation, service impact analysis, service*

outcome metrics & KPIs, service quality, knowledge management as well as customer & user support regardless of the specific CSDM service category."

Services typically have three aspects: the interaction, the offering, and the service system. While the ServiceNow AI Platform ships with three OOB base-system service types, you can extend these service type classifications to align with the service types in your organization. The three OOB service types are application, business, and technical.

- A **Business service** is a service type that is published to business users, and it typically underpins one or more business capabilities as it provides specific value and outcomes.
    - Business Service are the most abstract and will represent the highest value level in a CMDB (see CSDM Service). A Business Service is how the customer sees the service being delivered not what IT calls it.
    - A Business Service type is related to a *Business Service CI*, and it's associated with a service owner and has one or more *Business Service Offerings*.
    - Single Level; not a hierarchy
    - Is an Operational CI (cmdb_ci_service_business), used for impact analysis in Incident, Problem, Change (IPC). Also used for Approvals for Change.
- A **Technology Management Service**, previously documented as a **Technical Service,** is a service type that is published to service consumers, and that provides the administrative and operational functions to manage the technologies that are typically layered under one or more Business and/or Application Services.
    - A Technology Management Service type is related to a *Technology Management Service* CI, and it's associated with a service owner and has one or more *Technology Management Service Offerings*.
    - Users can view and manage the technologies that are provided to the business, and as such should be Provider focused.
    - Event Management enables monitoring of service performance and identifies health issues for related infrastructure CIs and application services.
    - Technology Management Services can be managed as part of the Service Portfolio in the Service Consumption domain (that is, a Service Portfolio hierarchy can be referenced from a Technology Management Service).
    - Single Level; not a hierarchy
    - Is an Operational CI (cmdb_ci_service_technical), used for impact analysis in Incident, Problem, Change (IPC).
- A **Service Instance**, previously documented as an **Application Service,** is a service type focused on the instantiation of a Service. We have added several new Service Instance siblings to the preexisting Application Service table. An Application Service remains a logical or designated instance of a Business Application or Application Function based on the deployed and operational system + application/software stack.
    - An instance may be designated by environment such as Development, Test, Production, Prod1, Prod2 etc.
    - An instance may be designated by region, line of business (LoB) or otherwise. Instances can be regional or cross-region as well.
    - Is an Operational CI (cmdb_ci_service_auto), used for impact analysis in Incident, Problem, Change (IPC).
    - Application Service (Instances) can be created through Manual Mapping, Service Mapping with Entry Point, Tags or Dynamic Query.

- Data (incl. genAI), Connection, Network, Facility and Operation Process Service Instances are siblings of Application Services, with specific functional focus and typically segregated management & operational control and organizations. See also Service Instance section.

What is the system model for CSDM Services?

One of the other key objectives for CSDM 5 is to drive alignment and digital transformation of the Business Strategy as expressed as Value Streams, Enterprise Architecture, Solution Architecture, Service Model and Sales & Support models (as shown in Figure 3). While Business Application thus far represented the core of the Business Model, going forward a more expanded and explicit Digital System Model is needed to model the overall digital transformation for processes, services and technologies across an expanded scope of industries and services.

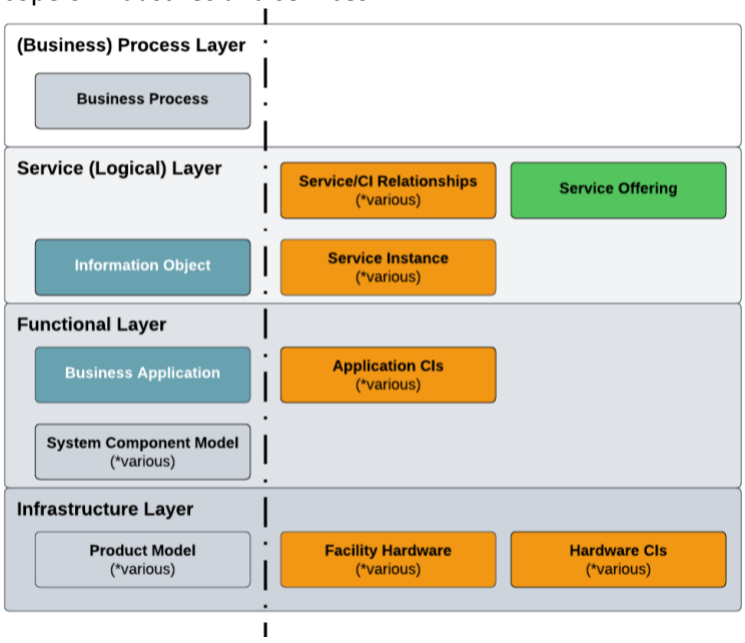


Figure 5. CSDM Digital System Model.

Where Figure 3 shows the domain entity types across the different CSDM 5 domains, Figure 5 shows the CSDM layered Digital System Model and its primary domain entities. The model is broken into four layers for separation of concerns, operational control and entity life-cycle progression in each of the layers. Accordingly, the layered model also shows both design and operational entities (left-to-right), to reflect the CSDM Life Cycle:

(Business) Process Layer

The Business Process layer encapsulates the people and system action automation entities (internal and external to ServiceNow) that realize the desired value outcome.

Service (Logical) Layer

The Service Logical Layer is the heart of the CSDM service model whereby underlying system functions can be designated or represent the various Service Instance classifications and their operational purpose (Dev, Test, Production, Regional, etc.). The Service Layer also represents the service dependency map (underlying functions and infrastructure, both internal and external) that then can be mapped to specific Service Offerings.

Functional Layer

The technical & functional capabilities that are delivered as part of a service instance. Typically associated with applications, software, Software-Defined functions, Data processing & persistence and process automation.

Infrastructure Layer

The Infrastructure Layer represents both physical and virtual infrastructure entities to host, run, contain and/or provide the functional capabilities, as well as the facility infrastructure in which they operate.

What reporting comes with CSDM? Short answer – none. At this time, CSDM is a framework focused on identifying where to place data that ServiceNow AI Platform products depend on. In the future, more visualization, reporting, and analytics will be made available through the product teams that use the ServiceNow Data Model.

Leverage the CMDB query builder to structure complex queries across multiple elements and relationships. The query builder supports traversing Application Services automatically and using CMDB Query Builder queries for reporting and PA analysis.

The CMDB query builder enables you to easily build complex infrastructure and service queries that span multiple CMDB classes, non-CMDB tables, and that involve many CIs that are connected by different relationships.

CSDM Domains

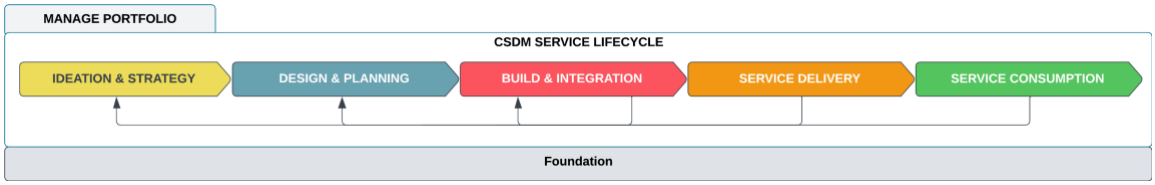
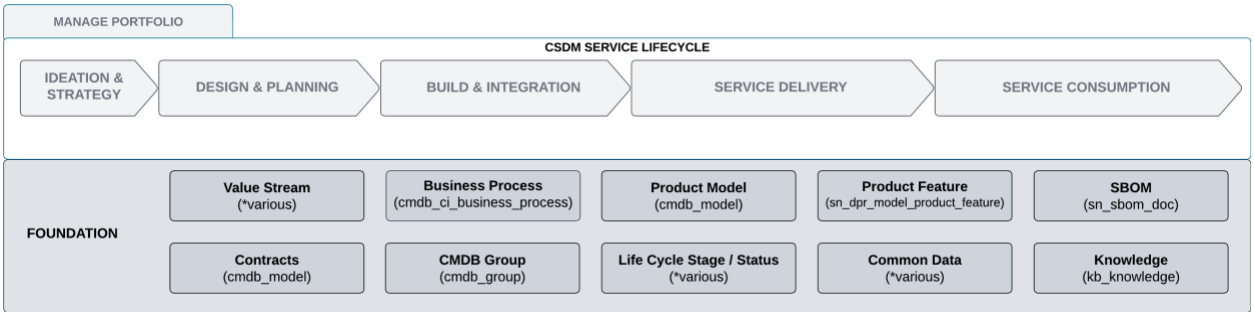


Figure 6. CSDM 5 End-to-End Service Life Cycle.

CSDM domains are groupings of the data model that support activity within the ServiceNow AI Platform. As shown in Figure 6, CSDM has seven domains: Foundation, Ideation & Strategy, Design & Planning, Build & Integration, Service Delivery, Service Consumption, and Manage Portfolios. Each domain is supported and enhanced by one or more products on the ServiceNow AI Platform. The combined access to quality data across domains, strengthens your day-to-day efforts to achieve value on the ServiceNow AI Platform while enabling Business Digital Transformation and its realization in the Digital Value Network.

Foundation Domain



The Foundation domain represents tables that contain base data referenced from or to objects in the other CSDM domains. The tables identified in the Foundation Domain are not used in CMDB relationships. Instead, they are critical referential data. In some scenarios, Foundation data is required prior to the implementation of ServiceNow products and/or buildout of the CMDB. The Business Process table is a CMDB table, while the remaining tables exist outside of the CMDB. Common personas in this domain are Process Owner, Data Steward, Product Owner, and Contract Manager.

Value Stream

ServiceNow AI Platform workflows deliver value throughout the organization. Value is a unit of measure that represents a desired outcome while a Value Stream is how work really happens across the organization, including all the activities to deliver value (a product or service) to a customer.

The following core objects in the ServiceNow AI Platform represent a value stream:

- **Value Stream** (cmn_value_stream), represents the Value Stream
- **Value Stream Category** (cmn_value_stream_categories) represents the categorization of the Value Stream. These categories might be foundational to all businesses and organizations or might be specific to an industry. The base system includes foundational categories as listed below.

- **Value Stream Stage** (cmn_value_stream_stage), a distinct grouping of activities within a value stream represented as flow relationships
- **Value Stream to Capability** (cmn_value_stream_capability) and **Value Stream Process** (cmn_value_stream_process) are mapping tables to create references to Business Capabilities and Business Process respectively.

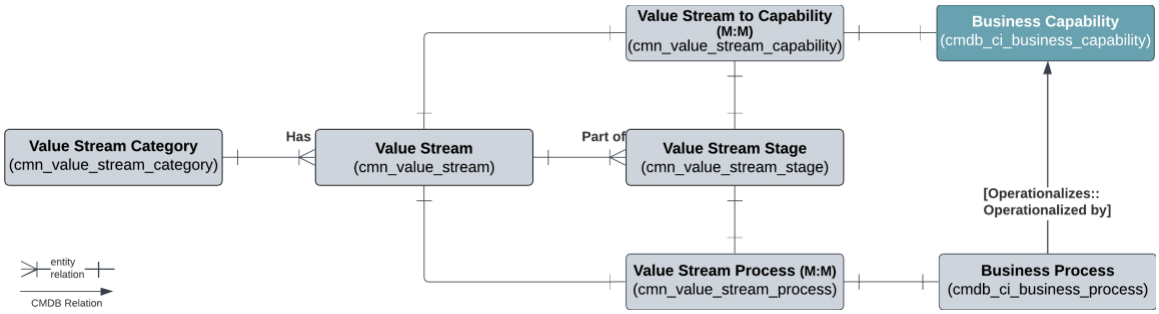


Figure 7. Value Stream and Value Stream Stage mapping to Business Capability and Process.

The 16 value stream categories provided as part of the Value Stream data model are as follows:

- Customer Engagement - Acquiring customers, determining their needs, selling, ensuring they are pleased (Business)
- Order Fulfillment – Receiving orders, fulfilling orders, collecting payments (Business)
- Customer Service - Providing customers with services such as help using the product, planning, and consulting (Business)
- Manufacturing - Production of goods, maintenance of inventory, interaction with suppliers (Product and Business)
- Procurement Service – Assistance in supplier selection, contracting, and management (Business)
- Product & Design Engineering – Designing products and the facilities for manufacturing them (Business)
- Research – Exploration of potentially valuable science and technology (Business)
- Marketing – Determining customer needs, products to build, features needed, advertising (Business)
- Market Information Capture - Information about sales, competitive intelligence (Business)
- Product Maintenance - Repairing products and preventative maintenance on customer sites (Business)
- Legal – Solving legal problems, writing contracts (Business)
- Digital Product Development – Developing and modifying systems and software (Product)
- Technology Enablement - Building the corporate network, databases, and facilities for distributed computing (Business)
- Human Resources – From recruitment to termination (Business)
- Leased & Capital Asset Management – Management of buildings and capital resources (Business)
- Financial Management - Accounting, banking, cash management (Business)

With the help of Enterprise Modeling and Visualization from the Enterprise Architecture solution team (formerly known as APM), you can visually design and commit your Value Stream data model within the ServiceNow AI Platform.

Note: Each value stream stage may be related to one or more Business Processes and Business Capabilities through m2m tables: Value Stream to Process and Value Stream to Capability.

With the help of Lenses from the Strategic Portfolio Management (SPM) team, you can relate Value Streams to the strategic management of your business.

Business Process

A Business Process is a method of related steps that stakeholders take to achieve a business goal. The Business Process is a manually maintained CI that can identify criticality, both declared and determined, as well as impact to confidentiality, integrity, and availability. The review frequency of the Business Process can be set to Monthly, Quarterly, Semi Annual / Half Yearly, Annually, and none. Additionally, the next review date can be specified.

Business Processes are recorded in the **cmdb_ci_business_process** table. Business Processes may be identified in a parent/child relationship using the parent attribute as a reference to a parent Business Process.

With the help of Enterprise Modeling and Visualization from the Enterprise Architecture solution team (formerly known as APM), you can visually design and commit your Business Process data model within the ServiceNow AI Platform.

Contract

A contract is a binding agreement between two parties. In the ServiceNow AI Platform, contracts contain detailed information such as contract number, start and end dates, active status, terms and conditions statements, documents, renewal information, and financial terms.

Contracts are recorded in the **ast_contract** table. A Contract is *NOT* a configuration item. Contracts use Contract Model types from the Product Model module. Service contracts may support hardware CIs in support of SLA and Vendor Management. Additionally, Service contracts may be used by Customer Service Management (CSM).

Product (Models)

What is a Product? Everything is a product! Depending on your perspective …

- Products are goods or services that your company sells and supports in exchange for something of value
- Products are the services you develop and release for your own organization to consume
- Products are what you purchase that may need to be tracked for potential risk to the organization
- Products are core to your organization

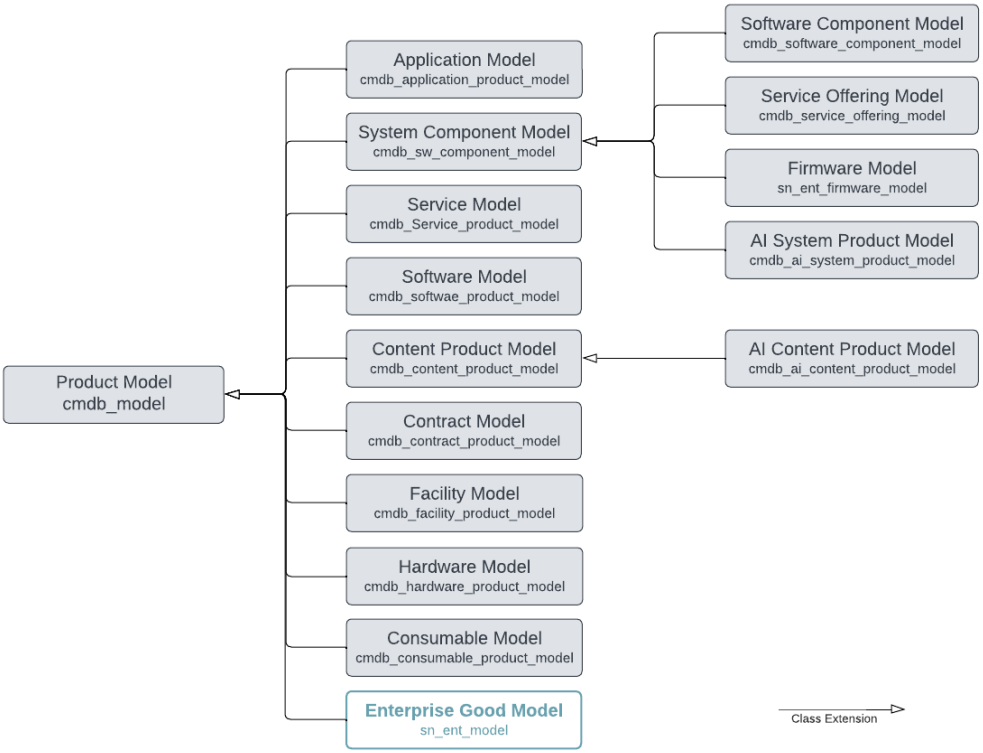


Figure 8. Ten base Product Models class model.

In the ServiceNow AI Platform, products are recorded as Product Models (**cmdb_model**). Product Models enable you to identify a product owner, the status of a product within your organization, compatibility with other products, reference to product catalog, and reference to a list of objects that represent the details of various stages of a product's life cycle. Additionally, you can identify the end-of-life details of your products as established by third-party providers and/or internal product owners. With product models, you can document bills of materials (BOMs) with other products as components to represent the set of products that your organization develops, sells, and/or consumes.

Historically, the ServiceNow AI Platform has managed technical product models. In recent years, Product Models have grown to include enterprise good models as part of the licensable Enterprise Asset Management (EAM) solution. EAM product models support various industries including retail, transportation, medical, industrial, wearable, construction, tactical equipment, and more. CSDM focuses on the core product models with visibility into the enterprise good models from EAM.

Product models are extended into ten base types:

- Application Model (version-agnostic)
- System Component Model (version-specific)
    - Software Component Model
    - Service Offering Model
    - Firmware Model
    - AI System Product model
- Service Model
- Software Model – for Software Asset Management (SAM), entitlement specific use only (version-specific)

- Content Product Model
- Contract Model
- Facility Model
- Hardware Model
- Consumable Model
- Enterprise Good Model

The System Component Model and its children are important additions to CSDM 5. The tables replace previous guidance in referencing versions of software (in source, build/binary and packaged/deployable forms) and other versioned products such as services. The System Component Model structure provides visibility into the development, release, deployment, and consumption of versioned products as well as components of aggregate products (and services). Current ServiceNow AI Platform solutions that use the Software Component Model include EA, Digital Product Release, SAM and ITAM/OTAM & Software Security Vulnerability Response with SBOM. With SAM Foundations, the Software Component Model can be populated with normalized discovered values.

Product Models are recorded in the **cmdb_model** table via its extended tables known as product model classes.

NOTE: product model classes are not the same as CMDB Classes

The product model tables are *not* CIs. CIs reference product models using the "Model ID" attribute available on all CMDB tables. For example, a Service Offering CI may reference a Service Offering Model, while a Windows Server may reference a Hardware Model.

Product Feature

A product feature represents *what* a Product (model) does. Its use is to support the release of products. Through product enhancements, the product feature connects to stories, code, testing, etc. the product feature object is a core element of Digital Product Release (DPR).

Software Bill of Materials (SBOM)

SBOM is a new addition to the CSDM 5 data model. The SBOM represents a detailed inventory of all components that make up a piece of software. In the ServiceNow AI Platform, the SBOM is a core element for Security Operations and the tracking of possible vulnerabilities within your operations. The concept of an SBOM or BOM (bill of materials) is important to ServiceNow as we expand its use from Service Delivery into the stages of Design & Planning and Build & Integration.

The BOM data model is available on the ServiceNow Store as SBOM Core **sn_sbom_core.**

App scope	Pricing	Custom table count	Latest version	Compatibility
sn_sbom_core	FREE	0	6.0.3	Yokohama, Xanadu, Washington DC, Vancouver

CMDB Group

CMDB Group is a collection of CIs based on one or more of the following items:

- Saved Query Builder queries
- Encoded queries

- Manual entries

A CMDB Group is *not* a CI. The purpose of the CMDB Group is to enable useful groupings of CIs that can be used throughout the ServiceNow AI Platform.

In the CSDM, a Dynamic CI Group (part of the model) includes criteria that specify which CMDB Groups to include. Dynamic CI Groups are discussed on page 43.

CMDB Groups are recorded in the **cmdb_group** table. A CMDB Group can contain one or more saved queries from Query Builder, encoded queries, or manually added CIs. For some customers, a CMDB Group can replace the spreadsheet grouping of CIs where automated solutions are either not available or not yet implemented.

CSDM Life Cycle

Life Cycles are standard fields and values for tracking life cycle stages and stage statuses for Products, Assets, Contracts, CIs, Locations, and more. Consistent use of these standard values help to effectively track objects through their life cycle process transitions.

The CSDM Life Cycle Stage and Life Cycle Stage Status attributes are an end-to-end process method of managing status on CIs, assets, and other ServiceNow AI Platform objects. The combination of Life Cycle Stage and Life Cycle Stage Status uniquely specify an object's status.

This chart illustrates how the CSDM domains use of life cycle stage status values.

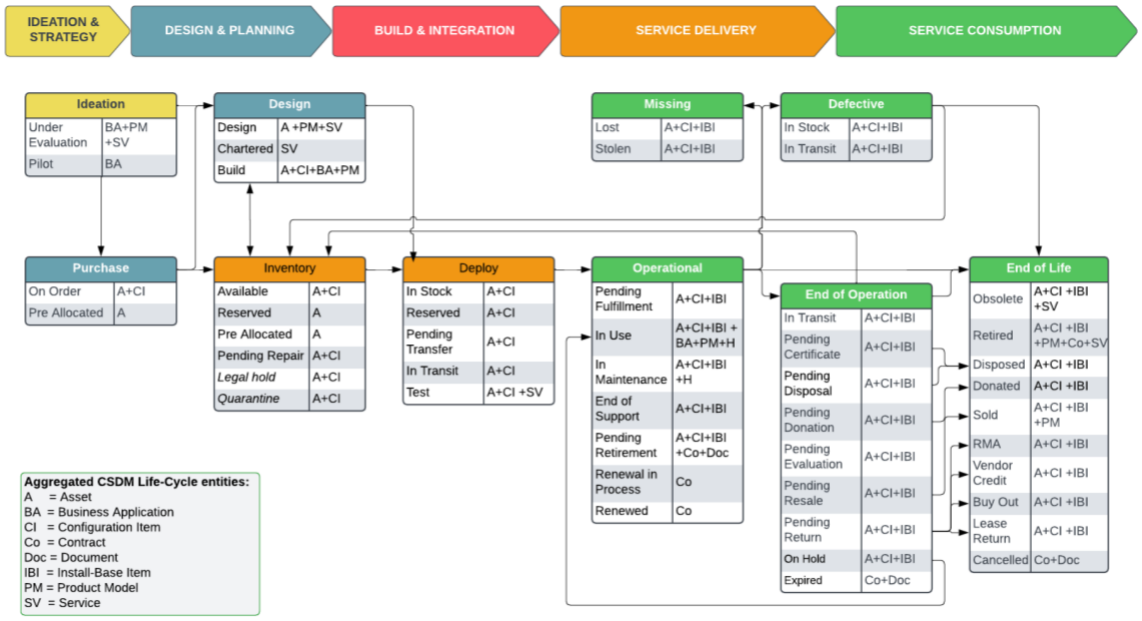


Figure 9. Aggregate CSDM Life Cycle model

With the introduction of Product Instance 2.0 (PI2.0) in the Xanadu family release, optional activation of PI 2.0 will eliminate synchronization efforts between legacy configuration item statuses (intall_status, operational_status, hardware_status) with Life Cycle Stage and Life Cycle Stage Status. Because this

synchronization process was problematic and failed to deliver consistently positive user experiences, the legacy synchronization was eliminated. In its place, ServiceNow implemented synchronization of Life Cycle Stage and Life Cycle Stage Status between CI, asset, and install base item (IBI) from CSM.

NOTE: Once enabled, PI2.0 will DISABLE any previous synchronization efforts between *legacy CI* statuses and Life Cycle Stage & Stage Status on.

NOTE: Disabling PI2.0 synchronization after activation is not a simple exercise and may result in loss of data. Test PI2.0 in non-prod environments before activation in production environments.

Historically, no less than eight attributes existed across various record types within the ServiceNow AI Platform as State or Status choice lists. These data elements did not work together and were not effectively aligned to the objects they were meant to support. After careful consideration, these legacy attributes were deemed ineffective for long-term success. In the Paris release, new Life Cycle Stage and Life Cycle Stage Status attributes were born as two new attributes on every CI.

The Life Cycle Stage represents the stage or phase of an overall life cycle process. A Life Cycle Stage Status represents the status or step within a Life Cycle Stage. Together, these data elements provide an overall place within a life cycle process.

- A **life cycle stage** is one of the broad phases that an object moves through, from inception or procurement to operation and then to end of life.
- **life cycle stage status** is the particular status of an object within its current life cycle stage.

For example, a hardware CI in the **Operational** stage might change stage status over time from **In Use** to **In Maintenance** to **End of Support**. A different hardware CI might go from **In Use** to **End of Support** without ever having been in **In Maintenance** status.

NOTE: Life Cycle Stages and Stage Statuses are *not* editable. They are provided by ServiceNow in a manner that allows for data integrity, accountability, and consistency across the different entities.

Unlike legacy state/status values, the new Life Cycle capability will display only those choice values that align to the object you are managing. For example, tangible Assets and CIs will not display any choices that do not align to tangible objects.

NOTE: There is no rush to use/migrate the new Life Cycle functionality. A mapping capability from/to the legacy state/status attributes is available to populate the Life Cycle fields from legacy values but no ongoing synchronization will occur after the Xanadu family release. It is recommended to evaluate your dependencies on the legacy state/status attributes prior to enabling and migrating into the new CSDM Life Cycle capability. These dependencies may include but are not limited to reporting, scripts, business rules, and third-party integrations. Some product features such as CMDB Data Manager do require the mapping to be enabled, v. Verify requirements with the features and / products you intend to use.

Life Cycle Processes

There are five life- cycle processes that use the new Life Cycle fields:

- Product Life Cycle Process

- Tangible / Physical Life Cycle Process
- Intangible / Logical Life Cycle Process
- Document Life Cycle Process
- Location Life Cycle Process

Product Life Cycle Process

The product life cycle process focuses on the Life Cycle Stages and Life Cycle Stage Statuses that would be needed to manage the overall life cycle of a product. For more information on products, see "Products (Models)" documented above in this white paper.

Products have a process where the Life Cycle Stages are Ideation, Design, Build, Operational and End of Life. These Life Cycle Stages are further classified into Life Cycle Stage Statuses. The Life Cycle Stage and Life Cycle Stage Status settings for the product life cycle process are visible only on Product (Models) tables.

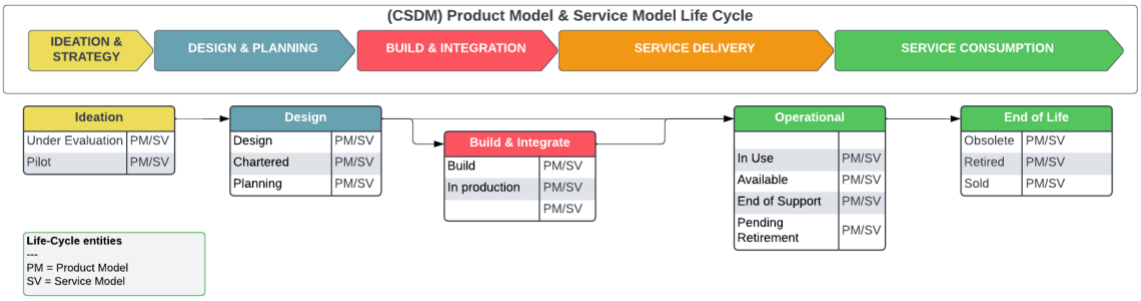


Figure 10. CSDM Life Cycle for Product Model and Service Model.

Product Life Cycle Definitions

- ***Ideation:*** This phase involves evaluating new product models to determine feasibility and potential adoption.
  - Under Evaluation – The product is being assessed for business value, functionality, and technical viability.
  - Pilot – A small-scale deployment of the product for testing in a controlled environment before broader adoption.
- ***Design:*** Once a product is approved for development or configuration, this phase involves defining its structure and features.
  - Chartered – The product model has been formally approved for development or procurement.
  - Design – The product is being architected, including defining specifications, features, and configurations.
  - Build – The product is being developed, tested, and prepared for operational deployment.
- ***Operational:*** The product is actively available and used within the organization.
  - Available – The product is fully developed and ready for procurement or deployment.
  - Pending Retirement – The product is still operational but is scheduled to be phased out.
  - End of Support – The product is no longer receiving updates, maintenance, or vendor support.
- ***End of Life:*** The product is no longer in active use and is being retired.

- Retired – The product is no longer available for new purchases or deployments but may still exist in limited use.
- Obsolete – The product is completely phased out and is no longer supported or used.

Tangible / Physical Entity Life Cycle Process

The tangible / physical life cycle process focuses on the Life Cycle Stages and Life Cycle Stage Statuses that would be needed to manage the overall life cycle of tangible / physical assets and CIs as they relate to their product. For more information on products, see "Products (Models)" documented earlier in this document.

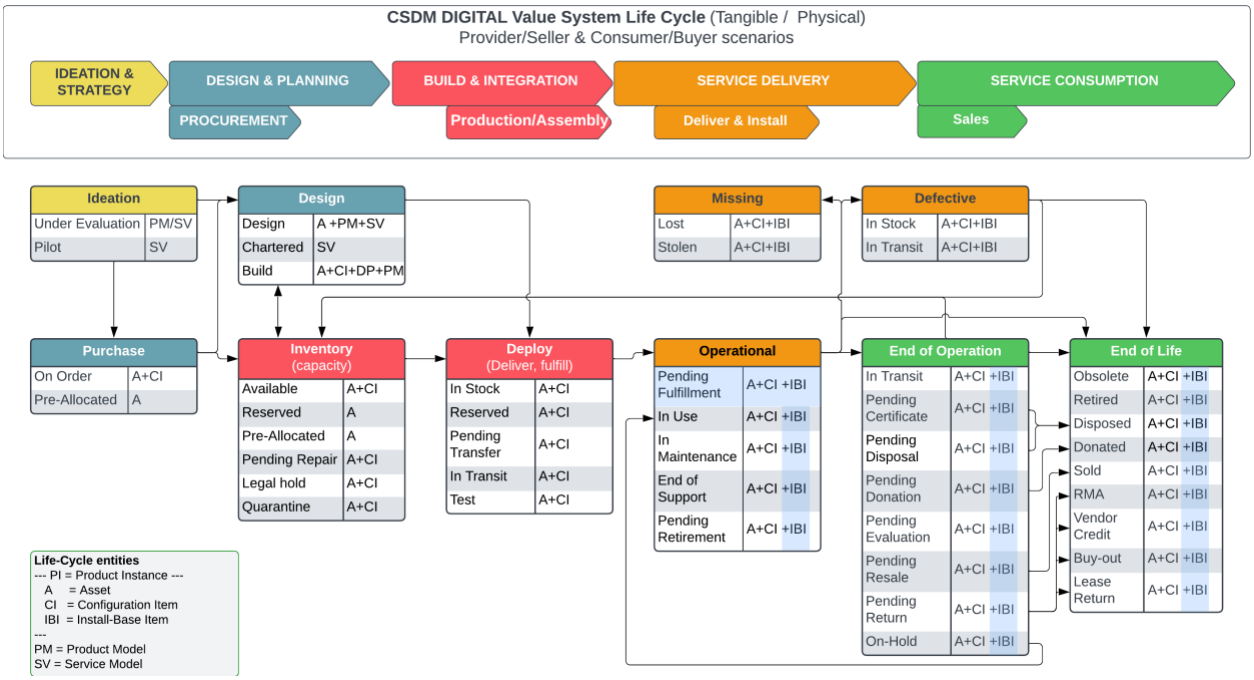


Figure 11. CSDM Life Cycle model for Tangible, Physical products.

Tangible / physical entities have a process that identifies the Life Cycle Stages as Ideation (on Product Model), Purchase, Inventory, Deploy, Operational, Defective, Missing, End of Operation, and End of Life. These Life Cycle Stages are further classified into Life Cycle Stage Status values. The Life Cycle Stage and Life Cycle Stage Status values for the tangible / physical life cycle process are visible only on tangible / physical-related tables in Asset and CMDB.

Tangible / Physical Life Cycle Definitions

- ***Ideation:*** This phase involves assessing new tangible / physical models for potential use within the organization. It includes:
  - Under Evaluation – The hardware model is being reviewed for compatibility, functionality, and business fit before approval.
  - Pilot – A limited deployment of the hardware model for real-world testing before broader adoption.
- ***Purchase:*** Once a tangible / physical model is approved, the organization proceeds with procurement. This phase includes:

    - On Order – The asset has been ordered from a vendor but has not yet been received.
    - Pre-Allocated – The asset is already assigned to a specific purpose or user before its arrival.
- ***Inventory:*** The asset is received and stored in inventory before deployment. It can have different statuses:
    - Available – The asset is in stock and ready for deployment.
    - Reserved – The asset is set aside for a specific request but not yet deployed.
    - Pre-Allocated – The asset is assigned to a request but not yet physically allocated.
    - Pending Repair (CI) – The asset is in stock but requires repairs before being usable such as on-site visit from manufacturer or RMA swap.
    - Legal Hold (CI) – The asset cannot be deployed due to legal restrictions or compliance reasons.
    - Quarantine (CI) – The asset is isolated due to potential security risks, failures, or non-compliance.
- ***Deploy:*** Assets are prepared and moved into operational use. This includes:
    - In Stock – The asset is stored but designated for deployment
    - Reserved – The asset is assigned to a user or department but has not been physically moved.
    - Pending Transfer – The asset is scheduled for relocation to another facility or user.
    - In Transit – The asset is currently being moved between locations.
    - Test – The asset has been identified as part of a deployment activity, has been built, and is ready for testing prior to operational usage
- ***Operational:*** The asset is actively in use or undergoing maintenance.
    - In Use – The asset is deployed and functioning in a live environment. Default status when a CI is discovered.
    - In Maintenance – The asset is being serviced or undergoing repairs while still considered operational.
    - End of Support – The asset has reached the end of vendor or internal support but is still in use.
    - Pending Retirement – The asset is still operational but marked for decommissioning.
- ***End of Operation:*** Intermediate stage between Operational and its next stage, whereby Operations of the product have ended, but the product instance is transitioning to a new life cycle stage and status.
    - In Transit - the non-operational, transitionary status to support repurpose and/or true end-of-life
    - Pending Evaluation - is the non-operational intermediate state whereby a product is evaluated to determine its next stage and status
    - Pending Return - becomes the common non-operational state prior to the asset returning and/or the provider receiving the returned asset in either a "RMA", "Vendor Credit", "Buy-Out" or "Lease Return" end of life stages.
    - Pending Resale - intermediate status prior to selling the asset to a 3rd party entity
    - Pending Certificate - the intermediate statutes prior to the receiving a certificate of disposal
    - Pending Disposal - the intermediate statutes prior to the asset being “Disposed”
    - Pending Donation - the intermediate statutes prior to the asset being donated
    - On-Hold – reflects a halted operational use. The reason for the hold may be synonymous with "Suspended" (e.g. Service, Subscription, etc.), "Blocked" (e.g. credit card, account, etc.), "Paused" (e.g. subscription, lease, etc.)

- ***Defective:*** Tangible / physcal devices that have failed and require replacement or repair.
  - In Stock – The defective asset is stored and awaiting disposition.
  - In Transit – The defective asset is being shipped for return, repair, or disposal.
- ***Missing:*** Assets that are unaccounted for or stolen.
  - Lost – The asset is missing and cannot be located.
  - Stolen – The asset has been confirmed as stolen.
- ***End of Life:*** Assets that are being decommissioned or disposed of.
  - Pending Disposal – The asset is marked for disposal but has not yet been removed.
  - In Transit – The asset is being shipped to a disposal or return location.
  - Pending Certificate – Awaiting official documentation for decommissioning or disposal.
  - Disposed – The asset has been discarded following proper procedures.
  - Donated – The asset has been given to a non-profit, employee, or another entity.
  - RMA – The asset is returned to the vendor for replacement or repair under warranty.
  - Sold – The asset has been sold as part of asset liquidation.
  - Vendor Credit – The asset was returned to the vendor for credit instead of replacement.
  - Buy-out – The asset was leased and has been purchased instead of returned.
  - Lease Return – The leased asset has been returned to the vendor at the end of its lease period.

Intangible / Logical Entity Life Cycle Process

The intangible / logical life cycle process focuses on the Life Cycle Stages and Life Cycle Stage Statuses that would be needed to manage the overall life cycle of intangible / logical assets and CIs as they relate to their product. For more information on products, see “Products (Models)” documented earlier in this white paper.

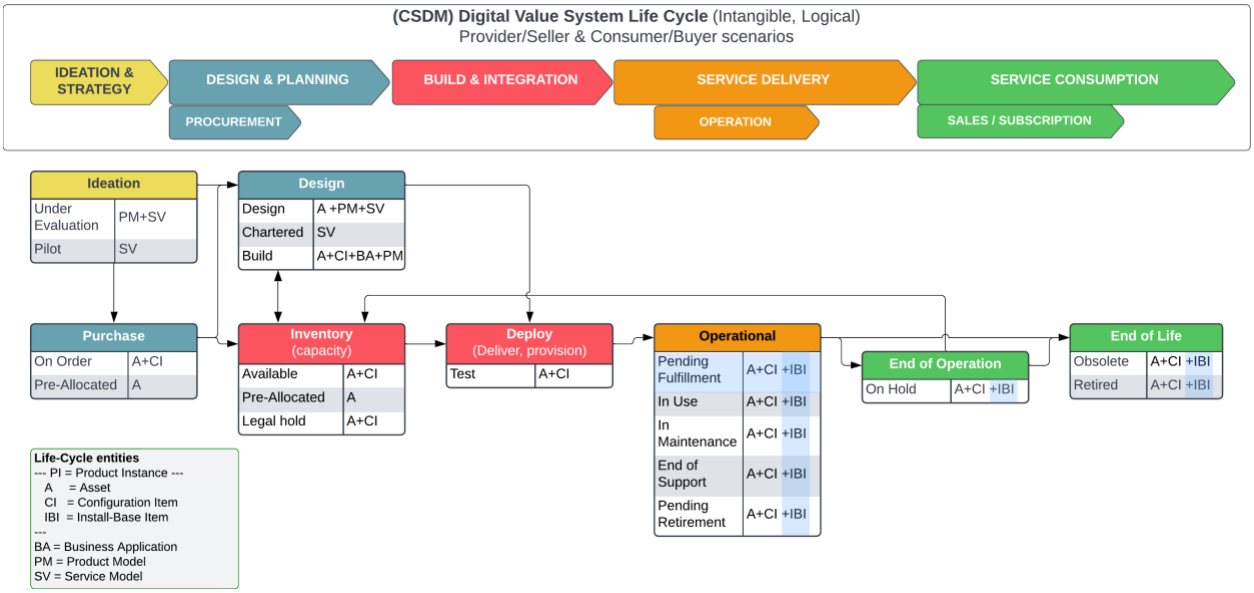


Figure 12. CSDM Life Cycle model for Intangible, Logical Products & Services.

Intangible / logical assets have processes that identify the Life Cycle Stages as Ideation (on Product Models), Purchase, Design, Inventory, Deploy, Operational, End of Operation, and End of Life. These Life

Cycle Stages are further classified into their Life Cycle Stage Status values. The Life Cycle Stage and Life Cycle Stage Status values for the logical life cycle process are visible only on logical-related tables in Asset and CMDB.

Intangible / Logical Life Cycle Definitions

- ***Ideation:*** This phase involves evaluating and testing new software or service products before they are approved for use.
    - Under Evaluation – The software is being assessed for business fit, licensing implications, and technical feasibility.
    - Pilot – A limited deployment of the software to test its functionality and usability before full-scale implementation.
- ***Purchase:*** Once the software is approved, the organization procures the necessary licenses or subscriptions.
    - On Order – Licenses or software subscriptions have been purchased but are not yet available for use.
    - Pre-Allocated – Licenses are assigned to users or departments before they are officially deployed.
- ***Inventory:*** The software licenses are now available for assignment and deployment.
    - Available – The software licenses are ready for allocation but have not yet been assigned to a specific system or user.
- ***Design:*** For software development or major configurations, this phase defines the logical and architectural structure.
    - Chartered – A project is initiated to design or configure software solutions.
    - Design – The logical architecture and system requirements are being defined.
    - Build – The software is being developed, customized, or configured for deployment.
- ***Deploy:*** Software and services are prepared for operational use and tested before full implementation.
    - Test – The software is installed in a test environment for validation before production deployment.
- ***Operational:*** The software is actively in use within the organization.
    - In Use – The software is deployed and functioning within production systems. Default status when a CI is discovered.
    - End of Support – The software vendor or internal IT team no longer provides updates or technical support, but the software may still be in use.
    - Pending Retirement – The software is scheduled for decommissioning but remains operational until a replacement is implemented.
- ***End of Operation:*** Intermediate stage between Operational and its next stage, whereby Operations of the product have ended, but the product instance may transition to a new life cycle stage and status.
    - On Hold – reflects a halted operational use. The reason for the hold may be synonymous with "Suspended" (e.g. Service, Subscription, etc.), "Blocked" (e.g. credit card, account, etc.), "Paused" (e.g. subscription, lease, etc.)
- ***End of Life:*** The software is no longer in active use and is being decommissioned.
    - Retired – The software is no longer used, and its licenses may have been revoked or reassigned.
    - Obsolete – The software is no longer relevant, either due to security risks, incompatibility, or technological advancements.

Document Life Cycle Process

The document life cycle process focuses on the Life Cycle Stages and Life Cycle Stage Statuses that would be needed to manage the overall life cycle of document assets (Contracts) and CIs (Business Process) as they relate to their product. For more information on Products, see "Products (Models)" documented earlier in this white paper.

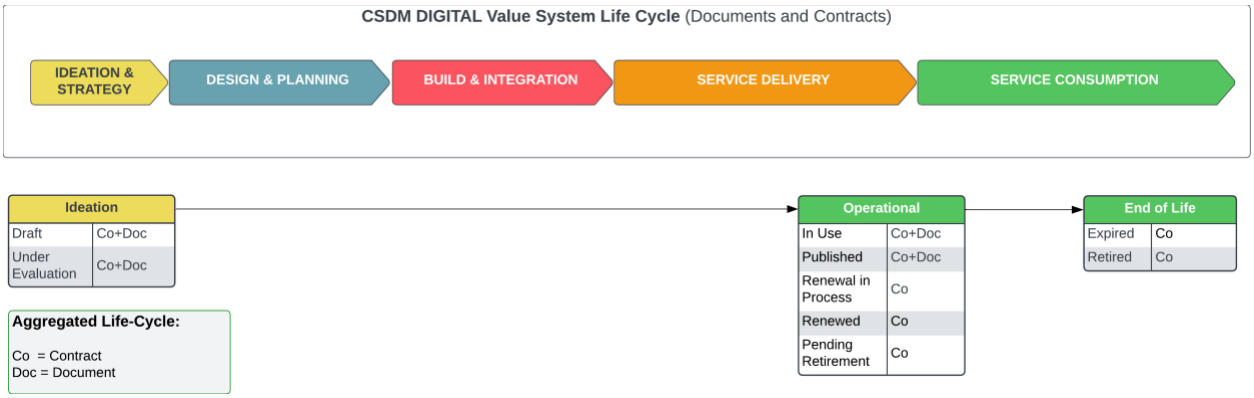


Figure 13. CSDM Life Cycle model for Contracts, Document and Architecture artifacts.

Documents have a process that identify Life Cycle Stages as Ideation, Operational, and End of Life. The Life Cycle Stages are further classified into their Life Cycle Stage Status choices. The Life Cycle Stage and Life Cycle Stage Status choices for the document life cycle process are visible only on document related tables in Contracts and CMDB.

Document Life Cycle Definitions

- ***Ideation:*** this stage is focused on the initial draft efforts for these materials
  - Draft – a document / contract that has its initial creation and editing activity
  - Under Evaluation – after creation, a review of the materials before activating the materials as operational in use or published
- ***Operational:*** the active use of the materials
  - In Use – the active operational status before first renewal
  - Published – after approval for release, the formal act of making the materials visibal for consumption
  - Renewal in Process – identification of the effort to renew an existing contract that is set to expire
  - Renewed – a contract that has been renewed
  - Pending Retirement – a document that has a pending expiration/end date such as contracts that have a expiration date
- ***End of Life:*** the materials are no longer active
  - Expired – a date limited material such as contracts that are past their expiration date
  - Retired – materials that are no longer needed by the organization

Location Life Cycle Process

The location life cycle process focuses on the Life Cycle Stages and Life Cycle Stage Statuses that would be needed to manage the overall life cycle of tangible locations within common data. For more information on Common Data, please see "Common Data" documented later in this white paper.

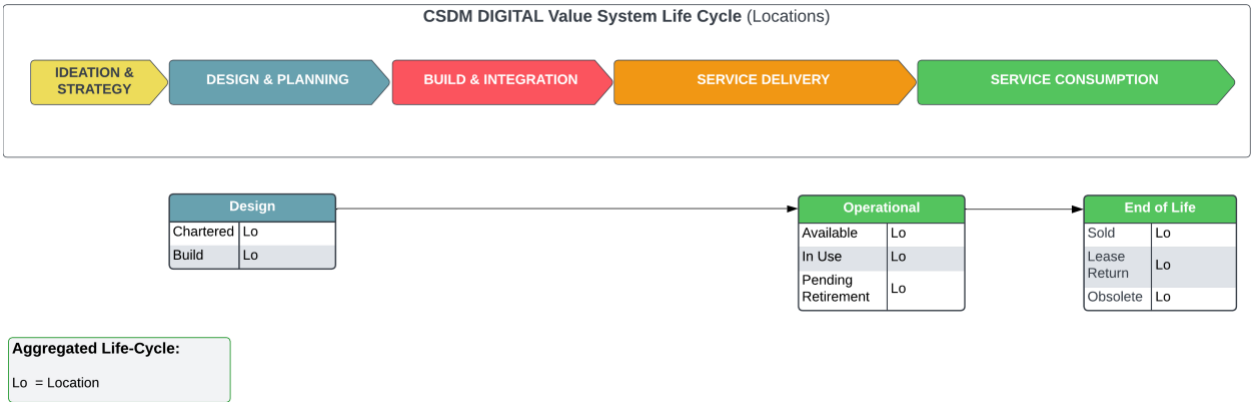


Figure 14. CSDM Life Cycle model for Location and related Facility entities.

Locations have a process that identifies the Life Cycle Stages as Design Operational, and End of Life. These Life Cycle Stages are further stratified into their Life Cycle Stage Status choices. The Life Cycle Stage and Life Cycle Stage Status choices for the location life cycle process are visible only on the common data locations table.

Location Life Cycle Definitions

- ***Ideation:*** This stage involves the initial planning and setup of a location within the organization.
  - Chartered – The location is approved for development, but no physical presence has been established yet.
  - Build – The location is under construction, setup, or being prepared for operational use.
- ***Operational:*** The location is active and in use for business operations.
  - Available – The location is fully built and ready for use but currently unoccupied or not assigned for a specific function.
  - In Use – The location is actively occupied and being used for its intended purpose.
  - Pending Retirement – The location is still operational but scheduled for decommissioning or repurposing.
- ***End of Life:*** The location is no longer in active use and is being decommissioned.
  - Sold – The location has been sold to another entity.
  - Lease Return – A leased location has been returned to the owner or landlord after the lease period ends.
  - Obsolete – The location is no longer viable for use due to physical deterioration, business strategy changes, or other constraints.

Common Data

Common Data is shared data that is prevalent throughout the ServiceNow AI Platform. Examples of Common Data include the organizational structure (Company, Business Unit, Department), locations, groups, and users. Multiple ServiceNow products depend on Common Data to provide business value. Planning of Common Data is core to the effective implementation of ServiceNow capabilities. Careful

planning and answering the following questions and others will assist in developing an effective foundation of critical data.:

- Do I have a trusted source for the data?
- Are there multiple sources?
- How often does the data change?
- Do I have the depth of data that my CIs will require?
- Who will maintain the data?

Common Data is recorded in the following tables:

- **Building: cmn_building**
- **Business Unit: business_unit**
- **Company: core_company**
- **Department: cmn_department**
- **Group: sys_user_group**
- **Location: cmn_location**
- **User: sys_user**

Common Data elements are *NOT* CIs.

Location Management

Many customers struggle with managing locations when the source of truth come from multiple federated integrations. Often, this data is riddled with "dirty data" and is difficult to maintain. To help make the management of location data simpler, we added attributes to the location table (cmn_location) in the Rome release

New Location Attributes:

- Source ID – where did this location record originate from? Included is a choice for manually entered data
- Location Type – where does this location record fit into the hierarchy (treepicker) of locations? These choices provide the ability to create a hierarchy of location data allowing you to scale the choices to fit your organizational needs.
    - Region
    - Country
    - State/Province
    - City
    - Site
    - Building/Structure
    - Floor
    - Room

- Managed by Group – who governs this location record? This attribute aligns to the same management schema used by Products, Asset, and CMDB.
- Validation: Duplicate vs Primary – Flag duplicate location records to assist with manually filtering out locations you don't want displayed for users. NOTE: if location is created through integrations, deleting a location will only result in the integration recreating the location. For each Location record flagged as a "Duplicate", a Primary location entry must be identified.
- Life Cycle Stage and Life Cycle Stage Status – the Design, Operational, and End of Life view for locations (see Location Life Cycle Process documented above in this white paper)

Teams

Teams is a related list for CIs in the CMDB. It associates a user group to a CI based on group type, providing flexibility in tracking the different types of groups assigned to a CI without adding multiple attributes to a CI form. In the base system, the Teams related list contains group types that match the fields:

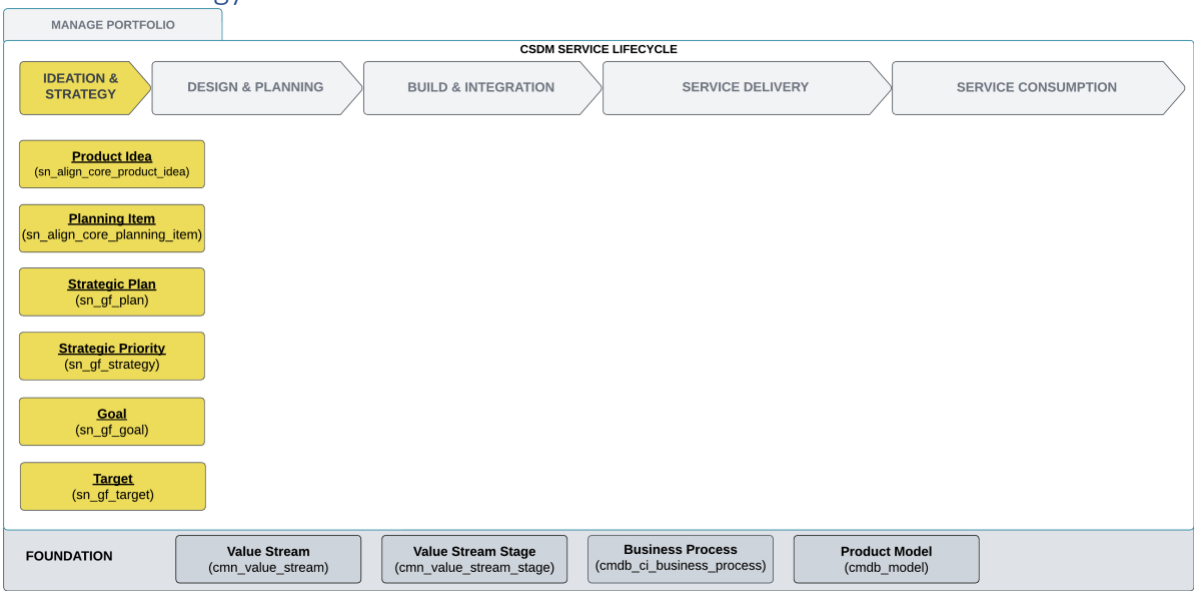
- Change Group
- Managed by Group
- Support Group

When you set a group assignment on a CI form of one of those classes, that group assignment is automatically synchronized with the Teams related list. If you set an assignment group for an application service, a relationship record is created to represent the new group assignment for the CI. The Teams related list on such CI forms, always shows the current settings for the various group assignments for the CI.

Knowledge Management

Knowledge Management enables the sharing of information in knowledge bases. These knowledge bases contain articles that provide users with information such as self-help, troubleshooting, and task resolution. AI Agents use knowledge articles to learn.

Ideation & Strategy Domain



What is Ideation & Strategy? The Ideation Domain is a net new addition to the CSDM domains. It represents the ideas, concepts and considerations for both the creation of new/additional services as well as improvements and enhancements around existing (CSDM) services. Additionally, it represents the strategic efforts of the organization to provide value to its customers. Common personas in this domain are Product Owner.

Product Idea

A Product Idea can represent a complete product, feature, enhancement, change proposal or suggestion that can be curated and/or promoted into demand, project, epic, or story. Product ideas are recorded in the **sn_align_core_product_idea** table.

Planning Item

A Planning Item is any type of work that can be aligned to goals, planned, and executed on. They can be demands, projects, epics, or a custom work item defined by the organization with their own lifecycles. Planning Items may be organized into different out-of-the-box portfolio structures defined within the CSDM to make investment decisions on new and in-flight work to achieve strategic plans and goals. Planning items are recorded in the **sn_align_core_planning_item** table.

Strategic Plan

Strategic plan is where organizations can set a Mission, Vision, and Value statement. The following describes each:

- Mission describes what the organization does and why they do it
- Vision describes where the organization aims to be in the future
- Value describes the organizations' principles that guide their actions

Strategic plans are recorded in the sn_gf_plan table.

Strategic Priority

Strategic Priority represents the key focus area that drives long-term goals and success. They represent the organizational strategic priorities that are cross-functional and likely span multiple business units. Strategic Priorities are recorded in the sn_gf_strategy table.

Goal

A goal is a broad outcome that the organization desires to achieve and are often specific to business units or are in service of strategic priorities. They are qualitative statements that can be associated with portfolios to help make better investment decisions ensuring alignment to desired business outcomes. Goals are recorded in the sn_gf_goal table.

Target

Targets are quantifiable measures for goals. They represent measurable milestones towards the goal that can be broken down over time to track and monitor progress towards achieving them. Planning Items are aligned to Goals and Targets. Targets are recorded in the sn_gf_goal_target table.

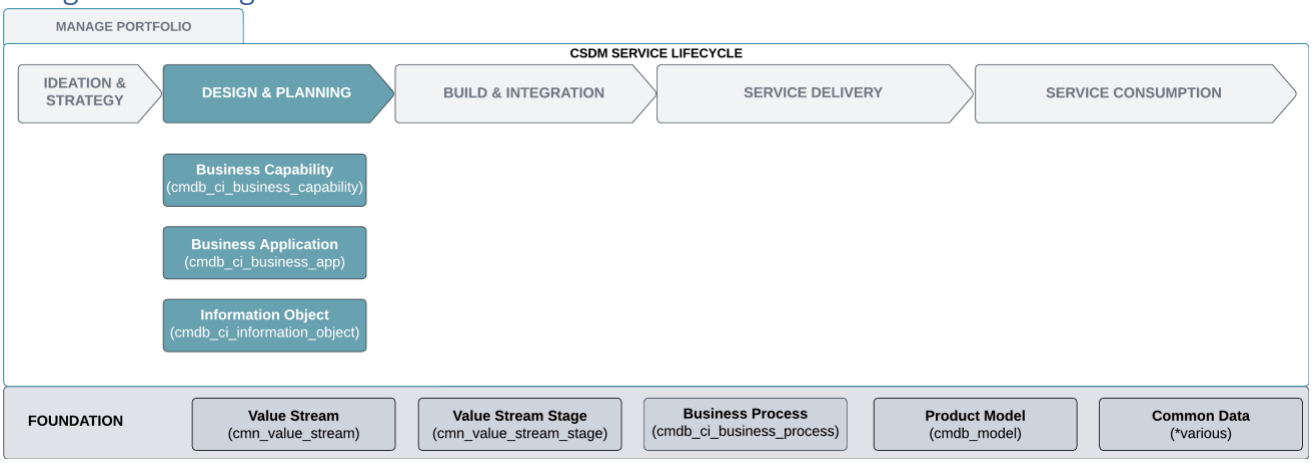
Foundational Entities that contribute to Ideation & Strategy

Product Models are the core element of Ideation as ideas and planning items are related to new or existing products, including goods and services.

Value Streams and **Value Stream Stages** are core elements of Strategy as organizations relate organizational goals and strategic planning to the value sought.

Business Process support the understanding of activities necessary to achieve organizational goals and strategic targets.

Design & Planning Domain



What is Design & Planning? Design & Planning is a CSDM Domain that represents those tables currently used by Enterprise Architecture EA (formerly known as Application Portfolio Management APM). These tables are used for design and planning thus records in them are NOT the direct targets of ITSM processes, namely Incident, Problem, and Change management. These tables represent the logical design of the enterprise applications to be deployed and used by the business. Though Enterprise Architecture is not required to use these CMDB tables, EA provides enhanced capability to rationalize and manage your Business Applications, Technologies, Information and Business object portfolios. The Business Capability and Business Application tables have been available OOB in the CMDB since the Kingston release. Information Object is a CMDB table available OOB in the New York release of ServiceNow. Common personas in this domain are Enterprise Architect and Application Owner.

Business capabilities

A business capability can be described as a high-level capability that an organization requires to execute its business model or fulfill its mission. A business capability describes what the organization does, not how work is performed. It is typically described in the context of performing specific tasks to achieve one or more business outcomes. Business capabilities are often represented as verbs (For example managing financials or providing IT support services). It is recommended that you establish a CI relationship between the business capability and the business applications for visualization and reporting purposes. Subsequently, you should establish a similar relationship between business applications and the application services to ascertain the technologies which pose risks to the business capabilities. This is necessary since enterprise architects routinely assess technologies, information, and services based on their relationships to business capabilities and business applications. An accurate service model that includes the relationships to business capabilities can serve as the foundation for strategy-aligned architectural decisions.

Business capabilities are recorded in the **cmdb_ci_business_capability** table. Business capabilities are represented in a hierarchical model that includes a parent business capability that may be underpinned by one or more lower-level capabilities. These lower-level capabilities are referred to as “leaf nodes” in the business capability hierarchy and are typically represented by numeric values such as 1.0 for the parent and 2.0-6.0 for the leaf nodes. If a business capability hierarchy appears to require more than six levels, it is likely a candidate to be decoupled into multiple business capabilities with the lower levels representing processes and tasks, not capabilities.

It is recommended that you use the business capability form to create, modify, and extend business capabilities. If you add a new capability, update an existing capability, delete a capability at a leaf node level, the levels of all the capabilities for the leaf nodes in that hierarchy must be updated accordingly. A preferred method for updating capabilities from the business capability form is to click the **Update Capability Level and HierarchyID** related link to update the levels in the hierarchy so that the capability map reflects the change. Additionally, the APM product provides a capability map with edit mode, a more robust management of the business capability hierarchy for non-technical business users. The following conditions should be considered when working with business capabilities.

Business capability update guidance

- When adding a capability, the hierarchy level is automatically assigned based on parent capability level
- If a parent capability is updated in the hierarchy, the levels of all its child capabilities are recalculated
- The total number of levels cannot exceed more than six in the hierarchy
- Only leaf node level capabilities or capabilities that have no child can be deleted
- Do not create circular relationships. In creating a parent capability, a child capability cannot be its parent

Business applications

A business application represents all software and infrastructure (For example catalog of titles) configured to provide business functionality. Business applications are the logical representation of all instances, used to increase productivity and to provide functionality to perform business functions accurately (For example payables, receivables, general ledger). Business applications are typically the software used by business users but also may represent the "products" that the business uses for generating revenue or performing missions. They can span multiple environments and / or deployed per geography (For example dev, test, prod, or Americas, APJ, EMEA). You can use the business application form shown above to add the applications that your organization uses based on the business capabilities that they serve. You can record the details of a business application manually via the form or import the list of applications from a spreadsheet or a third-party tool. To import data, define a data source and transform map and run or schedule an import. While the use of business applications is not required, it is a recommended data object to help plan transformations such as M&A, divestitures, cloud migrations, or cost reduction.

Since business applications are a manually managed CMDB CI class, you will need to manually create relationships between the business application and other CIs such as the deployed instances of the business application: the application services class. If needed, two or more applications can be integrated or connected to each other to establish a relationship between them, representing the design level. Using ServiceNow EA, you can add any business application needed to assess and track for costs, usage, business value, functional fitment, and risks.

In the New York release of ServiceNow, the "architecture type" attribute on the business application contains the choices "platform app" and "platform host". These architecture types help represent platforms as one type of business application and related business applications which depend on the platforms separately.

NOTE: Business Application has a reference to Business Process. As of CSDM 5, the singular reference to Business Process is considered *legacy* and not recommended for use. Other options exist that allow for a one-to-many relationship versus the one-to-one reference on a Business Application.

Information Object

Information object is part of the information portfolio and referenced by the business application primarily in support of scoping the type of data used for governance and compliance purposes. The information object is a configuration item that displays the type of information at the conceptual / logical tier, where attributes such as data sensitivity and confidentiality are managed. The purpose of the information object is to describe the type of data that is used within and often stored in its database. Information Objects are also used to capture how data may be exposed or consumed by integrations or APIs that the application implements. Information objects are mapped to **cmdb_ci_information_object** table within the CMDB.

The types of data a business application may possess such as PII, PCI, etc. will help to scope the audits where the concerns for how this data is stored, exposed, transported and where it's stored are required to be reviewed periodically for compliance purposes.

Foundational Entities that contribute to Design & Planning

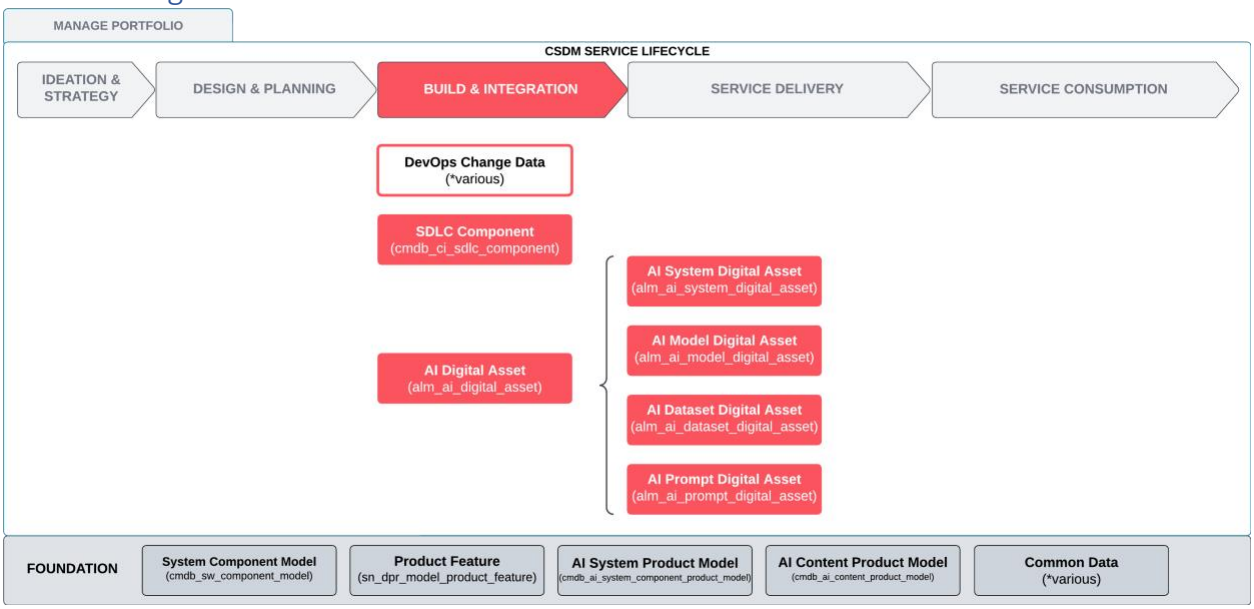
Product Models are the core referential object on Business Application through the model_id attribute. Relating a Business Application to its peer product model helps provide design and planning details to product owners.

Value Streams and **Value Stream Stages** are core elements of Design & Planning as organizations relate Business Capabilities to the value sought.

Business Applications are related to **Business Processes and Business Process Activities** to provide understanding of the technology that enables processes.

Core Data are critical referential data to support ownership and reporting of CIs.

Build & Integration Domain



What is Build & Integration? Build & Integration is a CSDM Domain that represents those tables used to give visibility in the build effort of digital products including, but not limited to, the DevOps process. These tables are used to reference development details thus records in them are NOT the direct targets of ITSM processes, namely Incident, Problem, and Change management. These tables represent the logical development details of the enterprise applications to be deployed and useused by the business. Though ServiceNow DevOps is not required to use this CMDB table, DevOps provides enhanced capability to visualize and manage your application development pipeline. The SDLC Component is available through the CMDB Schema store app version 1.33. A common persona in this domain is Teams.

For CSDM 5 a greater emphasis is placed on Integration, recognizing the fact that most Digital Product & Services (for internal enterprise usage as well as supporting or within the products for-sale external to the organization) rely on integration with other internal or 3rd party services to provide the necessary business capabilities.

DevOps Change Data Model

ServiceNow DevOps is built on a powerful data model that connects your DevOps toolchain to the work and data already in the ServiceNow AI Platform. One of several valuable outcomes is the ability to accelerate changes while ensuring effective and transparent risk management. The underlying data model that supports the ServiceNow DevOps Change Velocity capability is now available out of box through the ServiceNow App Store.

SDLC Component

SDLC Component is part of the new build domain and will be referenced by DevOps. The SDLC Component is a configuration item that represents a unique development effort of code. The purpose of the SDLC Component is to represent the parts of a larger Business Application / Digital Product broken down into its individually developed components. That said, a SDLC Component is a software part or element of a larger whole for an application or technology.

Types of SDLC Component:

- Application – examples include micro services and APIs
- Infrastructure – examples include database configurations and security configurations

A deployed instance of a SDLC Component of type “Application” would be an Application Service. A deployed instance of a SDLC Component of type “Infrastructure” would be any infrastructure CI for which the SDLC component represents that snapshot of its configuration details.

AI System Digital Asset

The AI System Digital Asset represents the Software/Application components for AI and gen AI services. For the purposes of build, integration and AI governance, the AI System Digital Asset (ServiceNow, 3rd party or customer bespoke) represents the *deployable* software source, binaries and components that feed into the build & integration pipelines.

In addition to the AI System Digital Asset, the data model also incorporates the AI Model (LLM, ML, SLM or otherwise), the AI Dataset (source, training, validation) and AI Prompt Digital Assets.
Upon deployment the AI entities then can be associated or mapped to AI agents, AI Skills, AI Tools and AI based search. The Service Delivery Domain section describes the genAI services as Data Service Instances.

Foundational Entities that contribute to Build & Integrate

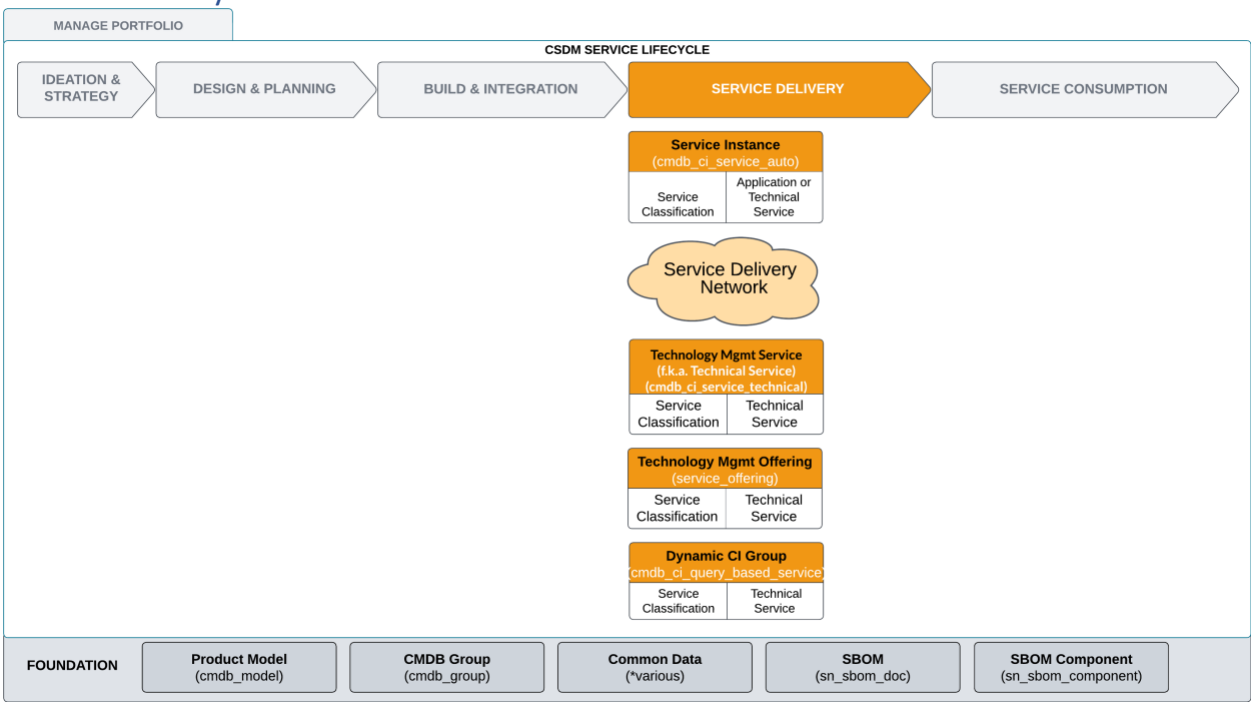
Product Models are the core referential object to identify details of development and release efforts to product owners. Within Build & Integrate, the following product model classes are important:

- System Component Model
- Service Offering Model
- Software Component Model
- AI System Component Model
- AI Content Product Model

Product Feature identifies what a product does and is related through enhancements to stories, planning, and other development activities.

Core Data are critical referential data to support ownership and reporting of CIs.

Service Delivery Domain



What is Service Delivery? The Service Delivery domain (formerly Manage Technical Services) is a CSDM Domain that represents those tables historically used by IT Operations Management such as Service Mapping and ServiceNow Discovery. Additionally, they represent the technology management services portfolio of services provided for the business to consume. The Service Delivery tables are “operational” thus ARE selected for ITSM: Incident, Problem, and Change, as well as referenceable from CSM through the Install Base Item (IBI). Service offerings may be requested through the Request Catalog. The service delivery tables represent the provider view of deployed service instances, and the delivery mechanisms needed to realize said services that the business will consume. Service Instance Owners may own the infrastructure tied to their services or to the delivery of services where no infrastructure exists. One example of delivery is Managed Service Providers.

Though Service Mapping and ServiceNow Discovery are not required to use the referenced service delivery tables, such capability greatly reduces the manual effort to manage/maintain configuration items and their relationships. The Application Service table has been available OOB in the CMDB since London. Configuration Items in the service delivery space represent those discoverable items such as installed applications, middleware, hosts, and networking. Common personas in this domain are Service Instance Owner, Service Delivery Owner, and Service Provider.

The Service Delivery domain represents the overall end-to-end Service Delivery System that encapsulates the infrastructure, the technologies, the integration patterns (infrastructure, systems, data, processes, dependency models), the service delivery networks and the operational models to deliver the CSDM compliant services to internal and external users and/or organizations.

Key additions and enhancements for CSDM 5 are:

- Identification and expansion of Service Instances beyond Application Services
    - Data and AI Service Instance

    - Operational Process Service Instance
    - Facility Service Instance
    - Connection Service Instance
    - Network Service Instance
- Expanded use of service classes beyond digital products to include utility, manufacturing, retail, and transportation type services
- Identification of APIs as critical elements of the service delivery system
- Identification of Operational Technology as critical elements of the service delivery system in support the expanded services
- Generative-AI capabilities as a first-class entity for integration, delivery as well as dependency fulfillment.

What is Service Classification attribute? Service Classification is an attribute on the cmdb_ci_service table within the CMDB. All tables extended from cmdb_ci_service will inherit the Service Classification attribute. Long before cmdb_ci_service_business, cmdb_ci_service_technical, and cmdb_ci_service_auto existed, there was just one Service table within Service Portfolio Management: cmdb_ci_service. To help identify types of Services, the attribute Service Classification was a choice list with values used to denote types of services. When Application Services were created as an extension of cmdb_ci_service, there was a gap between organizations using the legacy table and those adopting the new Application Service with Service Mapping capability. The legacy Service Classification attribute was reused to preserve data integrity between organizations using old vs new capabilities. That reuse of Service Classification was extended in several use cases:

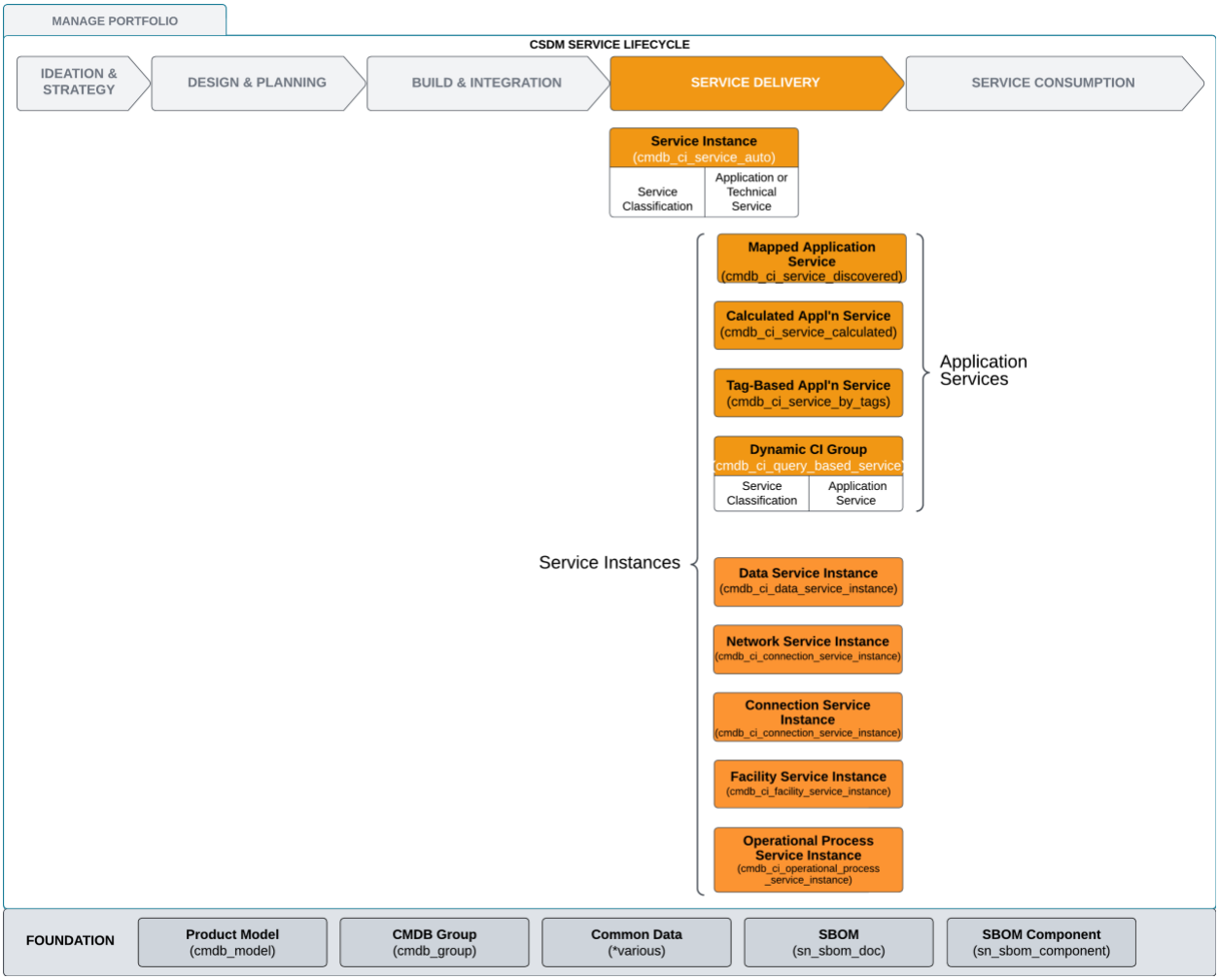
- Identify when a Service Offering is use for Business Services or Technology Management Services
- Identify if a Dynamic CI Group is treated as a query-based Application Service or a technical grouping of discoverable CIs

For most use cases, the Service Classification is populated automatically based on the Class of the CI being created. For now, the Service Classification attribute on cmdb_ci_service and all extensions remains a necessary legacy object.

Service Instance

Since the inception of CSDM, we have defined and documented the use of Application Services as instances of a service. Until CSDM 5, the application service was the ONLY service instance provided by ServiceNow. As customer and ServiceNow requirements have expanded over time, we need to introduce additional types of service instances beyond the existing application services.

To accomplish the introduction of service instances, ServiceNow relabeled cmdb_ci_service_auto to Service Instance. The tables originally extended from cmdb_ci_service_auto remain as Application Services based on their method of population (service mapping, tag based, etc.). New service instances extended from cmdb_ci_service_auto have been introduced to accommodate expanded use of services.



Note: As of the release of CSDM 5, there is NO USER INTERFACE for the creation and management of Service Instances. The pre-existing Application Service Wizard will remain the default method of creating and managing Application Services.

- **There is no expectation for use of Service Instances unless local requirements necessitate said use**
- **New service instance extensions (siblings of Application Service extensions) are provided as a data model ONLY requiring manual creation and maintenance**
- **New service instances are not part of Event Impact Analysis**

Application Services

Application service is a service and service instance type that is a logical representation of a deployed system or application stack. Application services can be internal, like an organization email system or customer-facing, like an organization website. For example, creating financial reports through a web-based application requires a computer, web server, application server, databases, middleware, and network infrastructure. These applications and hosts are all configured to offer the service of financial reporting. In development environments, application services represent instances of a business application or system in different types of development environments, like development, test, or production. Using application services lets you view maps and change history for services. If Event

Management is deployed, you can monitor application service performance and identify health issues for application services.

Application services roll up to **cmdb_ci_service_auto** as a **Service Instance** for common reporting and they underpin a business or technology management service. Beginning with the Paris release, customers have a method to register application service first and then pick the population method later. The registration process gives admins the ability to define uniqueness as well as define required field to create the initial record. Furthermore, Application Service also has a unique ID associated with it and can be leveraged for tagging external systems. Finally, there is also a new way to create application service using Dynamic Group that is introduced in Paris.

To assist with the creation of Application Services a "New Application Service" wizard is used to create an Application Service (along with new APIs). This wizard allows you to provide basic details, choosing a data population method, and Previewing the Application Service prior to committing. NOTE: previous methods for creating an Application Service remain. Application Service creation flow begins using the **cmdb_ci_service_auto** table and then switching to the child table once you have picked your method for population.

- **Top-Down Discovery (Service Mapping): cmdb_ci_service_discovered**
- **Manual: cmdb_ci_service_discovered**
- **Tags: cmdb_ci_service_tags**
- **Calculated: cmdb_ci_service_calculated**
- **Dynamic CI Group (Query Based): cmdb_ci_query_based_service**

The offering of application services should be exposed via the related business or technical service offering. Application Service was introduced in London and will continue to serve as a key relationship entity for ITSM, ITOM, ITBM, and CSM in the upcoming releases. Its relationships include business applications, business services, technical services, applications, and infrastructure CIs.

Data Service Instance

A **Data Service Instance** represents a specific deployed, provisioned and/or configured instance of a set of data services that are provided by a single or set of data service providers and the related infrastructure, including but not limited to database servers & services, data storage services & devices, AI/ML services (including data pipelines, models, training sets, etc.) and derivative Data Products.

Connection Service Instance

A **Connection Service Instance** is a Configuration Item that represents a logical or physical network connection (e.g. VLAN, LAN, WLAN, etc.) that is either discovered, configured and/or provisioned. While network connections could be modeled as CMDB relationships, those would not provide the same dependency and impact analysis properties & behavior that are based on CI instances.
A (provisioned) Connection Service Instance typically is based on connectivity between Network Functions, which in turn are based on one or more Network Infrastructure Cis. The collection or graph of Connection Services Instances form the Service Delivery Network.

Network Service Instance

The **Network Service Instance** represents a specific deployed, provisioned and/or configured instance of a set of network services that in turn are based on Network Functions.

Together with Connection Service Instances, the Network Service Instances form in essence the Service Delivery Network, whereby the Service Delivery Network is part of the Service (Dependency) Map.

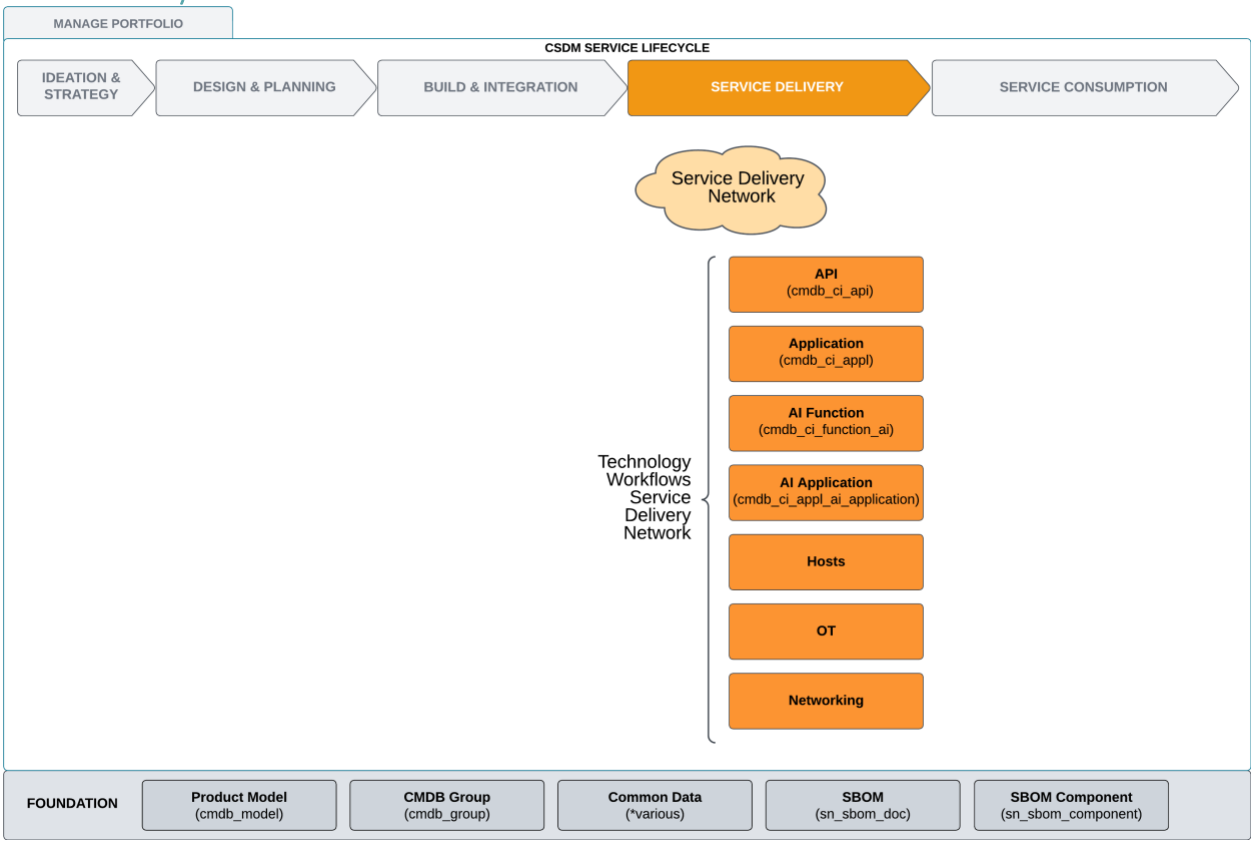
Operational Process Service Instance

An **Operational Process Service Instance** is extended from Service Instance and represents a logical instance of an operational process that is based on a series or sequence of interdependent (network) connected and disconnected devices and equipment that implement or realize the end-to-end operational process (manufacturing, industrial processing, utility operational processes, warehouse operations, etc.). The Operational Process may be autonomic but typically involve operational, front-line employees.

Facility Service Instance

A **Facility Service Instance** is extended from Service Instance and represents a logical instance of a service that is associated with the operations of a Facility (office building, residential building, manufacturing plant, operations control center, parking garage, etc.). This may include heating & cooling services, lighting, power distribution, hot & cold-water distribution, building access services, security monitoring, elevator services, etc.

Service Delivery Network



The Service Delivery Network is not an entity but represents a set of interconnected services. At its core the Service Delivery Network (see also Figure 1) enables the Service Consumers (end-users, connected

devices, etc.) to access the service where the Service Provider has “distributed to" or “made available” the specific Service Instance.

In a Technology Workflows scenario, we identify the Service Delivery Network that make up the elements of an Application Service.

Additional scenarios may be created beyond or dependent upon Technology Workflows, where the mapping of interconnected services may be focused on providing / provisioning power, managing supply chain etc. Below we focus on the objects found in a Technology Workflow related Service Delivery Network.

API

The API data model is made available within the CMDB to assist in managing your API data. As part of API Insights, you can centralize your management of APIs including but not limited to viewing API details, comparing APIs, identify & resolve data gaps, and manage service relationships.

The primary table for APIs is the **cmdb_ci_api** class with many additional elements that make up the full API data model.

Application

An application is any deployed program or module that is designed to provide specific functionality on specific compute infrastructure. An application defines behavior and has specific functionality associated with it. Applications are typically discoverable instances and tend to provide a specific set of functionalities for one or more services. In the context of ServiceNow, applications are limited to single host to ensure they maintain a unique identification during discovery processes. Additionally, there is not a one-to-one relationship between application and application service. In other words, a single installed application such as a database instance, may support multiple Application Services depending on the configuration and use of those applications.

The application table is **not intended** to be an inventory or portfolio of your applications. Those inventory/portfolio objects belong in the Business Application table discussed earlier in the Design domain. Instead, the application table and extended tables are meant to be those uniquely discoverable instances of code running on a host. Applications are considered to part of the infrastructure configuration items.

AI Function

AI SaaS applications deployed on public cloud platforms that offer scalable, on-demand services for machine learning, data processing, and AI-driven tasks. This provides flexible solutions without the need for on-premises infrastructure management. AI Functions are mapped to the **cmdb_ci_function_ai** table in the CMDB.

AI Application

AI software applications that can run on various platforms such as Linux, Windows, Docker containers, or Kubernetes (K8) clusters. These platforms support diverse AI workloads, including machine learning models, data analytics, and intelligent services or AI-enabled applications. AI Applications are mapped to the **cmdb_ci_appl_ai_application** table in the CMDB. This is an extension from **cmdb_ci_appl**.

Operational Technology (OT)

Refers to the systems and devices used to automate, monitor, and control physical processes, often in industrial environments, such as manufacturing, energy, or transportation. It's the technology that interacts directly with the physical world, managing things like machinery, processes, and infrastructure. Installation of OT classes in the CMDB are added through the CMDB Class Model App in the ServiceNow Store.

Infrastructure configuration items (Hosts and Networking)

Infrastructure configuration items (CI) are physical and logical components representing infrastructure that is currently or soon will be under configuration management. CIs may be a single module such as a server, router, or more complex items such as a complete structure (For example web server, database, infrastructure). The underlying infrastructure components or CIs are known and well understood in most organizations. The complexity often surfaces as the data structures are layered on top of those physical CIs, which is why ServiceNow recommends engaging a business relationship manager or enterprise architect to define the various business capabilities and business applications.

Technology Management Services

NOTE: Technology Management Services were previously labeled Technical Services in CSDM 4 and before the Yokohama family release.

Technology Management Services represent the service type of technical service that is published to service owners and typically underpins one or more business or application services. Using technology management services lets you view and manage the technology you provide to the business. A technology management service may have an operational view made up of one or more technology management service offerings.

Technology Management Services are mapped to the **cmdb_ci_service_technical** table starting with the Paris release of ServiceNow. Previous releases recommended mapping technical services to **cmdb_ci_service** with a service classification of "Technical Service" while Event Management enabled technical services are mapped to **cmdb_ci_query_based_service**. The cmdb_ci_query_based_service has been relabeled to Dynamic CI Group in the Paris release of ServiceNow.

A Service Portfolio hierarchy may be referenced from Technology Management Services starting with the Rome release of ServiceNow. Previous releases did not permit Technology Management Service references to Service Portfolio nodes. The addition of Service Portfolio reference allows for a more complete hierarchy and management of both Technical and Business Services within Service Portfolio Management and related workspaces.

Technology Management Service offering

NOTE: Technology Management Service Offerings were previously labeled Technical Service Offerings in CSDM 4 and before the Yokohama release.

Technology Management Service Offering is a service offering type of "technical service" defined as a stratification of the technology management service into options including localization/geography,

environment, pricing, availability, capability, support group (for incident), technical approval group (for change), and packaging options (commitments).

Different levels of performance and features for a given technology management service can be made available via the technology management service offering. A service commitment defines service delivery obligations agreed to between consumer and provider. There is also a concept of a service offering subscription that records which users have access to an offering.

Technology Management Service Offerings consist of one or more service commitments that uniquely define the level of service in terms of availability, criticality, scope, and pricing, and other factors. For example, an organization may offer two levels of support for an application service: a "Prod" offering of high availability and criticality for the production instances with commitments of 5-minute response guarantee 24/7: a "NonProd" offering of limited availability and criticality with commitments of 60-minute response guarantee between 8-5 on weekdays.

The Technology Management Service Offerings are mapped to **service_offering** with a service classification of "Technical Management Service." Technology management service offering is derived from service and refined depending on how the parent serves a specific technical need. ServiceNow recommends that every operational technology management service have at least one offering. Beginning with New York, service offerings may be requested through the Request Catalog.

We recommend that each CI associated through the Dynamic CI group be related to only one Technology Management Service and Technology Management Service Offering. Having multiple Offerings with different SLA, OLA, Support Groups, and commitments will conflict with one another when using new features such as Data Synchronization introduced in Rome.

Dynamic CI Group

The Dynamic CI Group is a dynamic grouping of configuration items (CIs), based on results of CMDB Groups queries. For example, you can create a dynamic CI group based on the location of all web servers in Detroit or all Oracle databases in Boston. Dynamic CI Group uses CMDB Group (see Foundation Domain for details) to identify CIs of common criteria. Note: A Dynamic CI Group contains CIs. However, a Dynamic CI Group cannot contain other groups.

The use cases for Dynamic CI Group include but are not limited to the following:

- As a Query Based Application Service – You don't have Service Mapping yet, but you know these 12 servers and 3 database instances are part of *MyAppServiceProd*. Eliminate the old spreadsheets and use a Dynamic CI Group as an Application Service.
- As a Managed Group of Infrastructure – The web servers in Detroit are managed by the *DetroitRockCity* Technical Service Offering. No need to manually create relationships from Technical Service Offerings to Infrastructure CIs. Use a Dynamic CI Group. A single relationship from your Technical Service Offering CI (*DetroitRockCity*) to your Dynamic CI Group (web servers in Detroit) will result in the desired visibility.
- Patch Management – It's time to patch our 200 Linux servers again. In the Change we select our Dynamic CI Group for or Linux Servers and then have a business rule auto populate our 200 servers into Affected CI. You may choose to have multiple Dynamic CI Groups to break up the 200 Linux Servers into the 50 Americas servers, the 100 European servers, and 50 Asia Pacific servers. All 3 Dynamic CI Groups may be related to the same Technology Management Service.

NOTE: a CI should not be related, through a Dynamic CI Group, to multiple Technology Management Service CIs. A CI may exist in multiple Dynamic CI Groups so long as only one of those Dynamic CI Groups is related to a Technology Management Service. The Managed By, Support Group, and Change Group are copied onto its Dynamic CI Groups which are then copied on to the related CIs. If a CI is related to multiple Technology Management Offerings, this data copy will overwrite CI data.

Dynamic CI Group is mapped to **cmdb_ci_query_based_service** table with a service classification of either "Application Service" or "Technical Service" depending on its use. Setting the service classification results in specific use cases for the Dynamic CI Group.

- **Application Service classification** – will make the Dynamic CI Group act like a query-based Application Service with related CMDB Group identifying the CIs that support the Application Service
- **Technical Service classification** – will make the Dynamic CI Group act like a grouping of CIs to be managed by Technology Management Offerings

Foundational Entities that contribute to Service Delivery

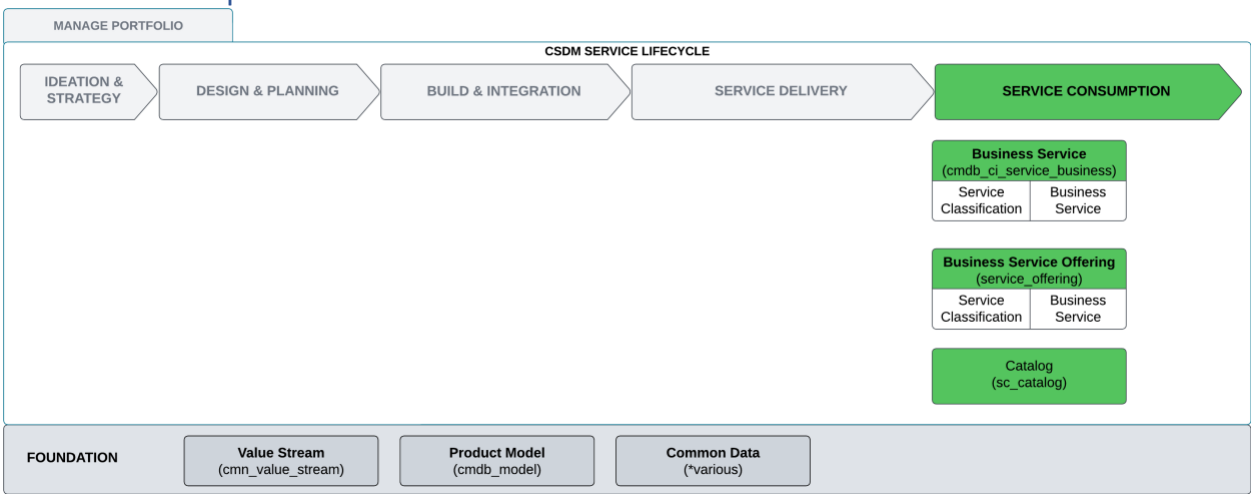
Product Models are the core referential object on CIs through the model_id attribute. Relating a CI to its product model helps provide service delivery details to product owners.

CMDB Group is a reference object on Dynamic CI Groups to provide one or more queries of CIs. These queries are used to identify CIs that make up a desired CMDB grouping.

SBOM are software bill of materials that identify the layered components of software using Product Models. These SBOMs are critical in understanding the details of installed software. SBOM is a critical object for vulnerability management.

Core Data are critical referential data to support ownership and reporting of CIs.

Service Consumption



Service Consumption? Service consumption is a CSDM Domain that represents those tables currently used by Service Portfolio Management (SPM) and Customer Service Management (CSM). Additionally, they represent the business portfolio of services that may sell/consume elements of the manage

technical services domain. The service consumption tables are “operational” thus ARE selectable for ITSM: Incident, Problem, and Change. Beginning with New York, service offerings may be requested through the Request Catalog.
Though Service Portfolio Management and Customer Service Management are not required to use the referenced CMDB tables, such capability greatly improves the ability to manage workflows and report on service-related data. Service offering has been made OOB in New York while Business Service Portfolio is a new table OOB in the New York release of ServiceNow. Common personas in this domain are Business Relationship Manager and Customer Service Manager.

Business Service

Business service is a service type that is published to business users and typically underpins one or more business capabilities. Business services are often orderable by business users. Business users can select the desired offering and service commitments levels via a request catalog. A business service is made up of one or more business service offerings. The view of business services is mapped to **cmdb_ci_service_business** with a service classification of “Business Service”.

Business Service Offering

Business Service Offerings are the starting point for configuring Service Portfolio Management (SPM). Service Offerings (SO) consist of one or more service commitments that uniquely define the level of service in terms of availability, scope, pricing, and other factors. For example, an organization may offer two levels of desktop support in your organization: a “standard” offering of upgrades and virus protection and an “executive” offering with the standard commitments plus some type of response guarantee such as 30 minutes between 8-5 on weekdays.

A Business Service Offering is defined as a stratification of the service into capability, availability, pricing, and packaging options. Different levels of performance and features for a given service can be made available via the service offering. A service commitment defines service delivery obligations agreed to between consumer and provider. The service offering is the specific record in ServiceNow that identifies the business area being serviced and the entity where the service is delivered. There is also a concept of a service offering subscription that records which users have access to an offering. Some business services and offerings depend on application service. Service offering is derived from service and refined depending on how the parent serves a specific business need. ServiceNow recommends that every operational business or technical service have at least one offering.

If offerings have different commitments (and they usually will), those differences should be represented by different SLA definitions. If an organization has no offerings, their SLAs will almost always be at a process level only (P1 incident, minor change, etc.) with no reference to the service offering being affected. Services and offerings that you provide can be represented in the service catalog (by catalog Items) and made active for consumers to see.

Request Catalog

A request catalog provides a consumable view of available business & technical products, services, service commitment options, and offerings. Catalogs help manage what services a user may have access to, and they are the initiation point for access to available services. For example, HR service catalog, technical catalog. Request Catalogs use catalog items to document consumable offerings.

Beginning with New York, service offerings may be requested through the Request Catalog.

Catalog item

A catalog item is a requestable item within the service catalog. Catalog items are the consumable representations of service offerings. A given service is often made up of multiple catalog items. (For example: employee onboarding). Catalog items are published on the service portal and are available to users who are subscribed to services linked with them or have access because of specific catalog category/item user criteria.

Foundational Entities that contribute to Service Consumption

Product Models are the core referential object on CIs through the model_id attribute. Relating a CI to its product model helps provide service delivery details to product owners. Within Service Consumption, the following product model classes are important:

- Service Model
- Service Offering Model

Value Streams and **Value Stream Stages** are core elements of Service Consumption as organizations relate Services to the value sought. The metrics provided in Service Consumption are critical feedback to measure desired value and goals.

Core Data are critical referential data to support ownership and reporting of CIs.

Manage Portfolio

What is Manage Portfolio? The Manage Portfolio domain is a CSDM Domain that represents portions of all five previous domains: foundation, design, build, manage technical services, and sell/consume. For many organizations, the service owner responsibility includes more than the business services found in sell/consume. For these service owners there is a need to include oversight in the business applications and their deployed instances known as application services. It is by having this visibility and oversight that these service owners encompass the true breadth of their responsibility.

For example, the Service Owner for HR may have financial responsibility for the business application that provides HR services. Additionally, the HR service owner may be directly responsible for overseeing the effective deployment of the HR application instances known as application services. Though the HR service owner may not be responsible for troubleshooting and repairing these application services, that's the responsibility of the related technical services & offerings, they are responsible for the impact the application has on the business.

Portfolio

At the highest level, a portfolio is a collection of services, products, projects, or applications. Portfolio(s) are used to manage like items together for a business. These may be grouped by objective, capabilities, organization, or geography, etc. (For example, ERP or financial management). ServiceNow supports a wide range of portfolio types such as service, project, and applications. In this white paper, the focus will be limited to the service portfolio.

Service Portfolio

Service portfolio is a hierarchical classification of business and/or technical services (products and services) that define strategic business value and facilitates the management of their life cycle.

CSDM 5 Tables and Relationships

CSDM 5 Table Names and Labels

How do the CSDM 5 Domain Entities map to the CMDB and non-CMDB tables? In this section, we will look at how CSDM 5 objects map to the actual tables and CI classes. The mappings in Figure 15 are straightforward, but please be advised that this mapping will continue to evolve as we strengthen the CSDM.

CSDM entity – Table Label	Table name	Comment
Product Idea	sn_align_core_product_idea	
Planning Item	sn_align_core_planning_item	
Business Capability	cmdb_ci_business_capability	
Business Application	cmdb_ci_business_app	
Business Process	cmdb_ci_business_process	
Product Model	cmdb_model	Not a CMDB CI
Information Object	cmdb_ci_information_object	
DevOps		
SDLC Component	cmdb_ci_sdlc_component	
Technology Management Service	cmdb_ci_service_technical	Service Classification = Technical Service
Technology Management Service Offering	service_offering	Service Classification = Technical Service
Service Instance	cmdb_ci_service_auto	
Application Service	Manual & Service Mapping: cmdb_ci_service_discovered Tag Based: cmdb_ci_service_by_tags Calculated: cmdb_ci_service_calculated Query Based: cmdb_ci_query_based_service	Service Classification = Application Service
Connection Service Instance	cmdb_ci_connection_service_instance	Service Classification = Technical Service
Data Service Instance	cmdb_ci_data_service_instance	Service Classification = Technical Service Also used for AI System based services
Facility Service Instance	cmdb_ci_facility_service_instance	Service Classification = Technical Service
Network Service Instance	cmdb_ci_network_service_instance	Service Classification = Technical Service
Network Function	Cmdb_ci_network_function_instance	Service Classification = Technical Service
Operational Process Service Instance	cmdb_ci_operational_process_service_instance	Service Classification = Technical Service
Dynamic CI Group	cmdb_ci_query_based_service	Service Classification = Technical Service
API	cmdb_ci_api	
Application	cmdb_ci_appl	
Network Function Application	Cmdb_ci_network_function_application	
Infrastructure CIs	cmdb_ci_*	Various extensions
Service Portfolio	service_portfolio	Not a CMDB CI
Business Service	cmdb_ci_service_business	Service Classification = Business Service
Business Service Offering	service_offering	Service Classification = Business Service
Request Catalog	sc_catalog	Not a CMDB CI

Figure 15. CSDM 5 Domain Entity table label and name summary.

Relationships in CSDM

What relationships do I use between the CSDM CIs? Configuration management is not effective without the use of relationships between CIs. Not all objects in the CSDM 5 domain model are CMDB tables. Additionally, not all the objects have relationships. The following identifies the relationships that are used.

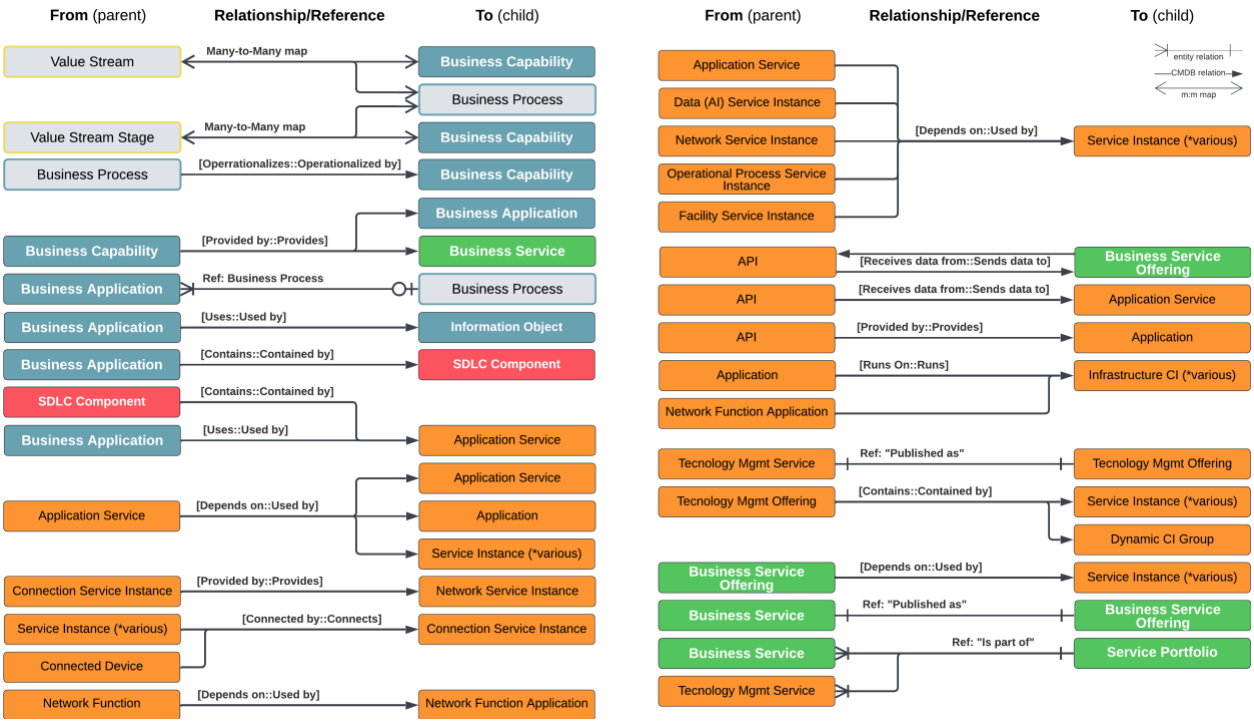


Figure 16. CSDM 5 Configuration Item relationships.

Several ServiceNow products, such as EA (formerly APM), have a critical dependency on the relationships listed in Figure 16. If these relationships are not used (ex. Business Application “consumes” Application Service) then functionality such as the Technology Portfolio Management risk assessment will not function. Additionally, the relationships commonly created as part of ITOM Service Mapping & ServiceNow Discovery are considered the standard for infrastructure CIs. When mapping these elements manually, without ServiceNow Discovery, it is best to consider WWDD (what would discovery do?).

Impact analysis processes in Change and Incident for example, use the CMDB relationships to determine the services impacted following the reverse direction of the relationship. For the most part the relationship type in these processes isn’t critical but should be followed for any potential impact.

Why follow the CSDM?

The acceptance of CSDM as useful guidance has grown significantly over time. Many customers are vocal about their adoption and adherence to the model. Primary value points include but are not limited to the following:

- Common Language – Customers with different roles, tools, and backgrounds appreciate the single page of CSDM, showing how the data model covers different needs in a simple diagram, once understood.
- Technical Debt – Customers with bespoke, custom data models value not needing to maintain custom data models and functionality that supports them.
- Greater out-of-box use – Customers understand that ServiceNow is adopting CSDM, therefore products will naturally be architected and structured to create and use the data in the way CSDM describes.
- Future-proof – as ServiceNow and partners add new functionality in existing products or new products, CSDM will be the data model that will be used and expanded to accommodate our platforms growth.

ServiceNow products are standardizing their use of Service Management data on the ServiceNow AI Platform. That standard is the CSDM model, which identifies the placement of data to be managed within the ServiceNow AI Platform. Current and future products from ServiceNow that use the CMDB and related tables, may require data to be found in the CSDM framework as documented within this white paper. Without this data in prescribed tables, you may not receive the full value of the ServiceNow AI Platform.

ServiceNow Product Portfolio across CSDM 5

To get an understanding how ServiceNow products map to CSDM 5 and its respective domains, Figure 17 shows the core products in the ServiceNow portfolio that contribute to the end-to-end CSDM Service Life Cycle management (Note that not all products and/or licensed options are shown). The **contributing products** are shown relative to their primary CSDM domain: Data Foundations + Platform, SPM, EA+TRM/TPM, DPR/DevOps-Change, ITAM/OTAM/HAM/EAM, SAM, ITOM, AI Governance, VR, ITSM, CSM/FSM/SOM and Impact.

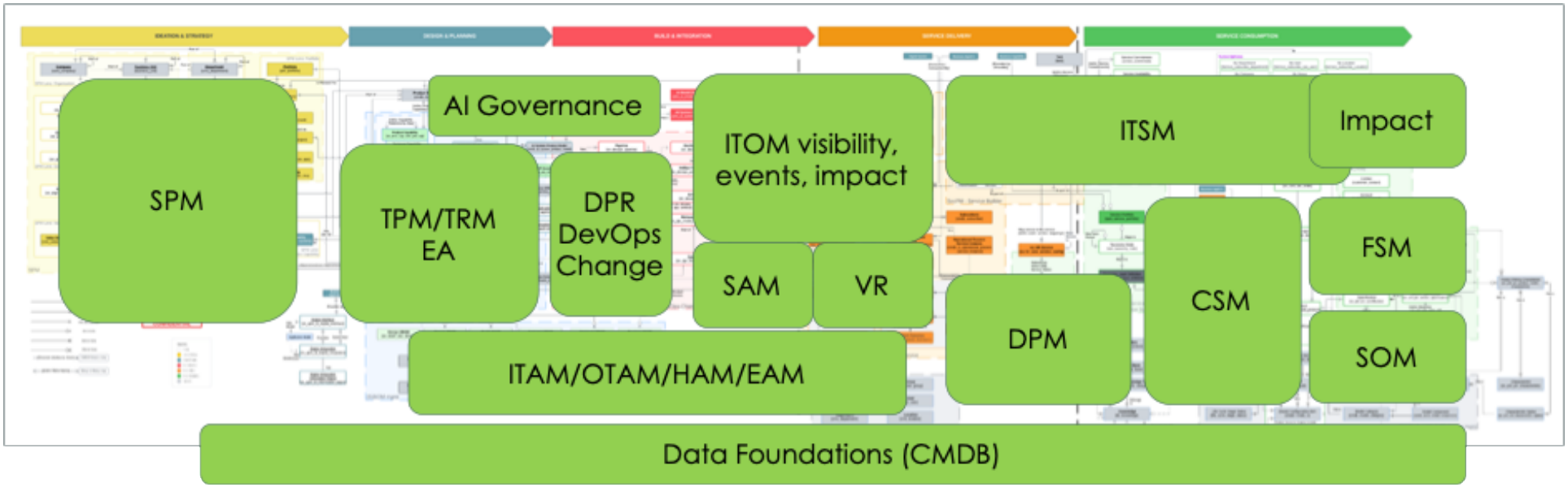


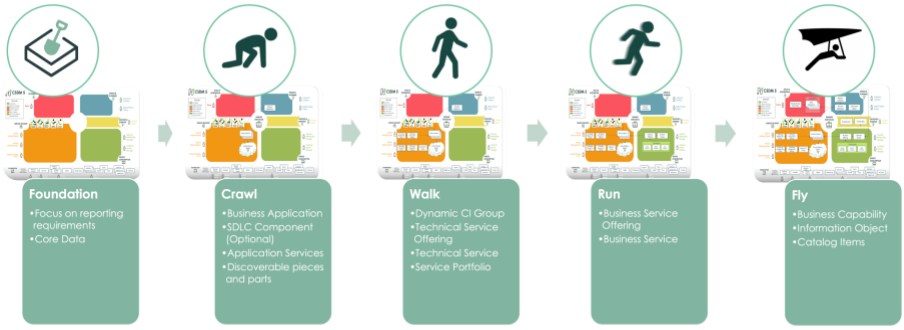
Figure 17. CSDM 5 across the ServiceNow portfolio.

Other ServiceNow products that follow and/or **adopt the CSDM model** include (but are not limited to): HRSD, WSD, LSD, S2P/SCM, CSM/SOM, FSM, SPO+SLO, FSC:AP/AR, GRC, EAM/HAM/Cloud-insights, Financial Services, PSDS, Telco, OT-Management and ICW, Manufacturing Ops, Retail-Ops.

Obviously not all ServiceNow products are required at once to adopt CSDM 5 or upgrade from earlier models. The next sections describe a recommended crawl, walk, run, fly approach.

How to adopt the CSDM standard

How do I get started with the CSDM? ServiceNow does not recommend trying to implement all elements of the CSDM data model at once. Based on decades of experience it is not only acceptable but highly recommended to approach the CSDM in a staged manner, we have provided an approach we call foundation, crawl, walk, run, fly.



Foundation Stage

The primary use of data is for reporting and common context for the other domains. More often than we like to admit, we consider this common context and needs for reporting, workflows and AI agents too late in our projects. It is critical that we have the right data at the right time to facilitate the business decisions we seek to make to be on the same page. Many of the reporting, workflow and AI agent asks of data within a CMDB are dependent upon referential data as opposed to the configuration items themselves. Early planning around referential data is critical to long term success.

- **Organizational Structure** – OOB tables Company, Business Unit, and Department are provided for identification of internal business structure as well as external customers, manufacturers, and vendors. Organizational structures can change often. Having an early plan to consume and manage this data will save heartache in the future.
    - **Company** – The legal entities of either internal or external companies are populated in the Company table. A hierarchy is permitted using the available parent attribute. Consider what legal entities you will require within your reporting when the CMDB is populated
        - Internal, your company, entries should focus on a hierarchy of legal entities as opposed to a hierarchy of business units within a legal entity.
        - External entries can be identified by the available true/false flags. The Customer flag identifies your customers external to your company. The Manufacturer flag identifies those companies that create products you consume. Note: your internal company may also be a Manufacturer. The Vendor flag identifies those companies that provide products that you procure. Note: your internal company may also be a Vendor.

  - **Business Unit** – The hierarchy of your business is populated in the Business Unit table with a reference to the Company they are part of. Business units are parts of your organization that oversee certain operations, such as Finance, HR, IT, and so on. A hierarchy within Business unit is common. For large multinational companies you may have Business Units that identify independent regional operations and then the specific operations within said region.
  - **Department** – A further stratification of your Business Units are populated in the Department table. Departments provide another way to categorize users, groups, assets, and CIs.
- **Location** – OOB table provided to identify a geographical position. A hierarchy of location data can be created using the parent attribute. Such a hierarchy could include entries that match your required level of reporting. For example, you could populate the location table as follows:

  If your reporting requirements identify greater location detail then you could extend the hierarchy into floors, rooms, datacenters and etc. With hierarchy capabilities, trusted source data, and your requirements in hand, you can create proper locations to support your future reporting needs.
- **Groups** – OOB table meant to identify a set of users who share a common purpose. Groups may perform tasks such as approving change requests, resolving incidents, receiving email notifications, or performing work order tasks. Groups are also used referential data in the CMDB such as to identify management of a CI (Managed by group) and support for a CI (Support group). Any business rules, assignment rules, system roles, or attributes that refer to the group apply to all group members automatically.
- **Users** – OOB table meant to identify the individuals that have access to the ServiceNow instance. These users can then be organized within groups, associated to Company, Business Unit, and Departments.
- **CMDB Group** – OOB table meant to identify a collection of CIs using queries and/or manually populated CIs. CMDB groups become a critical element of Dynamic CI Groups and the strategic management of CIs. Early consideration of how you wish to report on and monitor CIs will help in the creation of CMDB Groups in support of your requirements.
- **Product Models** – OOB tables meant to identify the unique types of products developed or consumed by your organization. Assets and CIs may be grouped by product models. Such grouping may be desired for project planning, costing, and rationalization. Discovery can populate hardware model type products once operational, but other product types require planning from Product Owners.
- **Contracts** – OOB table meant to identify a binding agreement between two parties. When populating services provided by vendors into the CMDB, it is valuable to consider the use of Contracts when measuring against contractual service level agreements (SLA).

What is the value of the Foundation Stage? the foundation stage focuses on OOB referential tables: company, business unit, department, locations, groups, users, CMDB group, product models, and contracts. Starting with these objects provide the following value:

- Foundation for many ServiceNow products and the ServiceNow AI Platform

- Early alignment to reporting requirements will expedite data model value realization
- Reduce or eliminate costly rework to align data to reporting requirements

The basis of any good structure or data model begins with foundational data that is referenced throughout the model. Identifying, validating, and governing this data is best discussed sooner than later.

Crawl Stage

With a goal of quick wins within service management we recommend a focus on Applications. As you learned above, ServiceNow has four entities for application related data:

- A **Business Application** represents your inventory / portfolio of applications and their meta data
    - Is NOT an Operational CI and should NOT be used in Incident, Problem or Change.
    - Is NOT version specific
- **SDLC Component** – some organizations breakdown their Business Applications into individually developed pieces and parts such as APIs, microservices, user interfaces, etc. In that sense, SDLC Component represents the software part or element of a larger whole for applications and infrastructure. For those organizations that wish to identify these elements, the SDLC Component captures those individually developed components of a Business Application. Not all organizations are ready for this level of detail which is why SDLC Component is optional in the Crawl Stage. For those organizations that don't break down their Business Applications into components, then implementation of SDLC Component may be done in the Fly Stage.

  Related material within the DevOps data model may serve as representative of developmental details. If you require identifying the stratification of a Business Application, then the SDLC is recommended.
    - Optional implementation. SDLC Component is not required in the crawl stage
    - Is *NOT* an operational CI and should not be used in incident, problem and change
- An **Application Service**: represents the service instance of the related SDLC Components or business application. You may have several application services representing each unique deployment including environment (dev/qa/prod) and location/geography (emea/na/apac).
    - This CI will often be the object chosen when an incident caller identifies an issue with an enterprise application
- An **Application** is any deployed program, module or group of programs, that is designed to provide specific functionality on a compute infrastructure (virtual or physical; see also Figure 5). Though the application may be the final cause of an incident, without event management, it may not be the initial offender.
    - This table is NOT your inventory of applications
    - It is a technical CI created and maintained by discovery
    - Discoverable installation of or running process for software code communicating over specific port(s).
    - Manual population of the Application table is not recommended.

What is the value of the Crawl Stage? The crawl stage focuses on four base-system CMDB tables: business application, application service, application (discoverable), and server/host (discoverable). Working with these objects provides the following value:

- Minimum CMDB requirements to provide ITSM: incident, problem, change
- Foundation for future EA use (formerly APM). When you license/use EA, your business application data will already be in the right place which will improve your implementation velocity of EA.
- Foundation for future DevOps use. When you license/use DevOps, your SDLC Component data will already be populated and ready to reference to your apps
- Foundation for future Service Mapping use. When you license/use ServiceMapping, you will have your application service data populated and ready to fill in your entry points for mapping.
- Foundation for Technology Portfolio Management risk details use a capability of EA. Technologies that underlie the business applications deployed in your business enterprise have a shelf life that must be actively managed and diligently monitored to track their versions and lifecycle. When using ServiceNow EA, Service Mapping, and SAM Pro, customers can identify these pending risks to using outdated software.
- Future products and enhancements to existing products will depend on data being populated in these specified tables.

Walk Stage

Deployed applications and infrastructure need someone to manage/support them. Many of the "services" populated in customer instances today are technical in nature. The next natural buildout of the CSDM focuses on the management of technology services. As you learned above, ServiceNow has 3 tables that identify the provider of technology:

- **Technology Management Service** – OOB table in the CMDB meant to identify the provider of the technology that your business consumes.
- **Technology Management Service Offering** – Technology management service offerings may be broken into options including localization/geography, environment (prod/non-prod), pricing, availability, support group (for incident), technical approval group (for change), and packaging options (commitments). The technology management service is derived from service and refined depending on how the parent serves a specific technical need. ServiceNow recommends that every operational technology management service have at least one offering. Beginning with New York, service offerings may be requested through the Request Catalog. NOTE: not all Technology Management Service Offerings have to be related to applications or infrastructure CIs. Some Offerings may be provided by Managed Service Providers.
- **Dynamic CI Group** – OOB table meant to identify a dynamic grouping of configuration items (CIs), based on some common criteria. One of the many use cases of the Dynamic CI Group is a collection of Configuration Items managed by a particular Technical Service Offering.

What is the value of the Walk stage? the walk stage focuses on 3 additional OOB CMDB tables: Technology Management Service, Technology Management Service Offering (Service Offering with a service classification of Technical Service) and Dynamic CI Group. Focusing on these objects in the walk stage provide the following value:

- Management of configuration items. Many infrastructure CIs are discoverable. Managing the manual meta data on these objects such as support group and technical approval group can be taxing. By identifying the technology management service offering that manage these CIs, you can configure ServiceNow to populate/synchronize this data onto these related child objects thus eliminating the manual effort of maintaining said data on thousands of CIs.
- Establish a view of those CIs that the technical teams support within your organization. Allows for additional stratification of their support structure along the lines of OLAs and commitments. Formalize the structure that already exists today through your use of varying support groups for application and technology owners.
- Foundation for future service portfolio management (SPM) use. When you license/use SPM, your service data will already be in the right place which will improve your implementation velocity of technical SPM.
- Technology Management Service Offerings may be ordered through the request catalogue. Automation may be configured as need to enhance the request workflow and update/create related CIs.
- Foundation for ITOM products such as ServiceMapping and Discovery.
- More automated methods of grouping CIs for identification and management by Technolog Management Service Offerings.

Run Stage

A critical element of ITSM is understanding the impact technology can have on the business. The business may consume the technology provided. Additionally, CSM has a similar dependency where the business sells the technology provided. Such dependencies require a relationship from the technology provided to the business that sells/consumes it. The next buildout of the CSDM focuses on sell/consume. As you learned above, ServiceNow has 3 tables that identify the sellers/consumers of technology:

- **Business Service Portfolio (not a CMDB table)** - Business service portfolio is a hierarchical categorization of business services (products and services) that define strategic business value.
- **Business Service** – OOB table in the CMDB meant to identify strategic business value that may use technology infrastructure. Such a dependency results in the business service selling/consuming said technology infrastructure.
- **Business Service Offering** – Business service offerings are the starting point for configuring Service Portfolio Management. Business service offerings consist of one or more service commitments that uniquely define the level of service in terms of availability, scope, pricing, and other factors. The business service offering is derived from service and refined depending on how the parent serves a specific business need. ServiceNow recommends that every business service have at least one offering.

What is the value of Run? the run stage focuses on 3 additional OOB tables: Business Service Portfolio (not a CMDB table), Business Service (Service with a service classification of Business Service) and Business Service Offering (Service Offering with a service classification of Business Service). Focusing on these objects in the run stage provide the following value:

- Impact assessment for ITSM: incident, problem, and change. Within an incident or change you can identify the impacted business services and offerings assuming relationships exist between the selected CI and the impacted services.
- Lays the foundation for Service Portfolio Management capabilities with service owner workspace. The service owner workspace delivers a workspace where service owners can monitor service portfolios and effectively gain an overall understanding of service-related information. Such information includes service trends, improvement initiatives, service performance, outage monitoring, and more.
- Lays the foundation for ITSM+ capabilities. Populate the related subscribe by table on a service offering to identify more than what business is impacted. Identify "who" is impacted. Business Service Offerings can identify subscribers by user, company, location, department, and group.

Fly Stage

The complete CSDM 5 is made available in the fly stage. Mother always said, "don't bite off more than you can chew." The CSDM is no different. Reaching the fly stage means you have accomplished all or most of the foundation, crawl, walk, run recommended approach to the CMDB framework. The last stage of the CSDM build-out finishes the remaining elements of CSDM 5. As you learned above, ServiceNow has 3 tables that identify the remainder of the CSDM 5 effort:

- **Request Catalog (not a CMDB table)** - Beginning with New York, service offerings may be requested through the Request Catalog.
- **Business Capability** – Business capability is a high-level capability that an organization requires to execute its business model or fulfill its mission. These capabilities can be used to rationalize and prioritize spend on business applications and business services.
- **Information Object** - Information object is part of the new information portfolio and referenced by the business application. The information object table may be used to identify the types of data a business application may possess such as PII, PCI, HIPAA, etc.

What is the value of Fly? the fly stage focuses on 2 additional OOB tables: Business Capability and Information Object. Additionally, request catalog capabilities with Service Offerings are valuable. Focusing on these objects in the fly stage provide the following value:

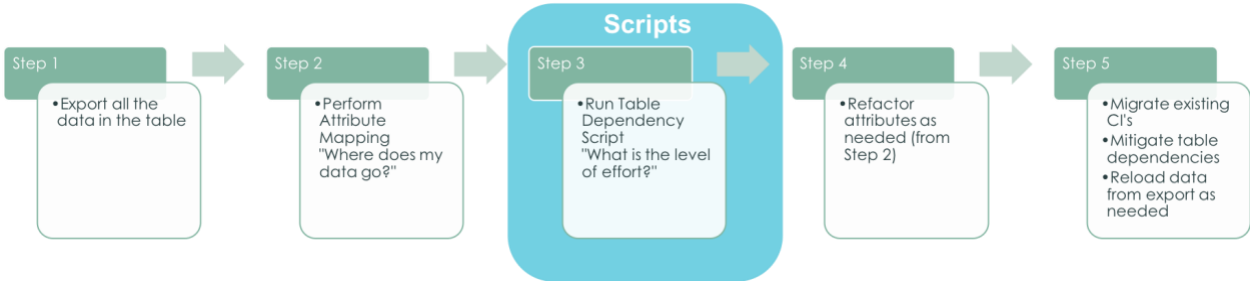
- Lays the foundation for Enterprise Architecture (EA) capabilities (formerly known as Application Portfolio Management APM). Perform rationalization of your business applications with EA. Are you spending too much or too little on your business capabilities? Should you be increasing spend on emerging business capabilities?
- Lays the foundation for EA with SPM capabilities. Perform rationalization of your business services and related offerings. Like business applications, are you spending too much or too little on services? Are they the right services compared to emerging capabilities?

- Lays the foundation for ITSM+ capabilities. From the request catalog you can now relate a service offering to a catalog item in New York. Enhance the request workflow to auto populate the subscribe by user table.
- Manage business services in your environment as a service owner with a combination of CIs from each of the CSDM domains.
- Identify the types of data that may be contained/used within your business applications. A common requirement for compliance, the new information object table will assist in identifying the details of your information portfolio.

  NOTE: The information object table may be required sooner in your data model implementation. Your business requirements should determine the right stage for implementation of the information object table

Migrating into CSDM

How do I migrate into the CSDM? Many of the CSDM tables have been available in the base system for several years. Many ServiceNow customers may be using necessary customizations or nonconforming tables within the CMDB. But continued use of customizations and nonconforming uses, however, results in reduced value from the ServiceNow products that increasingly depend on data found in the CMDB framework outlined by the CSDM. So, how do we migrate into the CSDM? ... very carefully …



Migrating into the CSDM

Since the Business Application table was added to the base system, we have spent a lot of time helping customers migrate their data from one table/class to another. That time and experience is what we are using to provide you guidance in migrating into the CSDM. There are 5 steps to such a migration from table to table as seen above. These steps are:

- **Step 1: Back up your data** – ServiceNow takes data loss very seriously. Though you won't need this data immediately, it is always a best practice to back up your data prior to embarking on a data migration effort. Export your table data with all attributes to excel and place in a safe spot.

- **Step 2: Attribute mapping** – Identify what tables your data will migrate to and if the destination table has your required attributes available OOB. This is an opportunity to rationalize your custom attributes. Do you really need those customizations that were only used once 5 years ago or have only been populated on less than 10% of your CIs?

  In most cases, less is more. Use this opportunity to eliminate low use / no use attributes or those attributes with more effective methods of fulfilling their use case. Categorize your custom attributes as follows
  - Best Practice – no related OOB attribute but is recommended by ServiceNow or a Partner.
  - Keep – no related OOB attribute but a unique use case requires the attribute be retained.
  - Refactor – there is an OOB attribute or capability that can be migrated to
  - Do Not Need (DNN) – this customization is no longer needed

- **Step 3: The most important step!!!** – In all honesty, it is relatively simple to move a CI from one class to another. But such effort may neglect an extremely important element of your environment – dependency on your non-conforming table. You may not be aware of potentially hundreds of reports, business rules, scripts, table references and more that look for data specifically in your non-conforming table. Moving the CIs to a new table does not automatically

move the reports, business rules, etc. Thus, we need to identify table dependencies.

We accomplish this effort using a fix script developed by Austin Buono of ServiceNow Customer Outcomes. The script has a place to enter the name of the table you desire dependency details on. The result is a list of specific dependencies.

ServiceNow makes this fix script freely available through our ServiceNow Community here. Please take the time to subscribe to our community forum for updates to the CSDM.

After running the dependency script and evaluating the data, you will have a level of effort understanding for your dependency migration efforts. Use this time to validate the referenced reports – are they still needed? Validate the rules & scripts – are they still needed? Identify what should stay and make a plan for migrating these to the new table(s) as needed.

Note: this script does not move your data or dependencies. This script identifies where you have dependencies that you will need to refactor in step 5.

- **Step 4: Refactor attributes** – Now is the time to get the data model solidified and ready for data migration.

  Using the attribute mapping effort of Step 2, create the necessary best practice and keep attributes on the necessary CMDB tables as you or a partner have documented. This is also the time to perform the documented refactor efforts as needed.

- **Step 5: Data Migration** – With the attributes refactored and dependencies ready to migrate we can begin our data migration:
  - Validate the data backup in step 1 is still useful. Perform another data backup if necessary.
  - Migrate your CIs –modify the class to the new class name. This will move the CI and all its related objects, incidents, changes, and so on to the new table. Perform a handful at first and increase as needed/comfortable.
  - Custom attributes or OOB attributes not in the same table hierarchy will result in data loss. This is why we made a backup.
  - Remediate your table dependencies:
    - Modify reports to use new table
    - Migrate business rules & scripts if needed
    - Update table references as needed
  - Reload data into new attributes using your data backup.
  - Validate all data and dependencies.

ServiceNow does not expect you to perform such table migrations alone. ServiceNow's Customer Outcomes organization and partners are available to assist in this effort.

Note: there is always risk when migrating data. Make sure you backup your data and provide contingency plans in case issues arise.

What tools are available to help with CSDM migration? The following tools are made available to assist in your CSDM journey:

- **Data Migration Script** – as identified above in step 3 of How do I migrate to CSDM, we have made a fixscript available on our community forum to identify table dependencies.
- **CMDB and CSDM Data Foundations Dashboard** - as of August 2020, the CMDB and CSDM Data Foundations Dashboard is available at no cost in the App Store. This app installs two modules: one for CMDB and one for CSDM. Each dashboard provides key indicators that evaluate configurations and customizations within the CMDB. The indicators provide visible results of evaluation, **Green** / **Red**, with weighted Priority to help with planning. Each indicator has a URL link to a remediation playbook to provide background and offer plays for remediation. The CSDM dashboard focuses on key data elements to support of the stages in CSDM adoption.

Frequently Asked Questions

What are some use cases (examples) of the CSDM? The updated CSDM 5 conceptual model helps identify a more prescriptive view of what the CSDM is which reduces the need for explicit examples within this white paper.

ServiceNow intends to provide CSDM 5 Reference Blueprint documentation to assist in the implementation of CSDM within your organization. Separation of CSDM White Paper from CSDM Reference Blueprints will make management of this document easier while providing increased velocity for sharing real-world use cases as examples.

Additional material

- Data Foundations YouTube playlist, bookmark for the latest CSDM and CMDB videos
- CSDM community forum

Impact Offerings:

- Common Service Data Model (CSDM) Assessment– Total
- Common Service Data Model (CSDM) Assessment - Foundation Data - Advanced

Expert Services:

- CSDM Amplified Hands on assessment of customers gaps to CSDM
- CSDM Align Overview and interactive session, includes creating 2 example CSDM data models

Store apps and components:

- CMDB and CSDM health dashboards available here. A short video overview here.

Training, reference and workshop material:

- CSDM Fundamentals – V3, V4 update CSDM 5 coming soon
- Now Create: CSDM Workshop material and CSDM examples

Documentation:

- CSDM Migration guidance and script to analyze impacts on our community site
- CSDM Product Views – explains what CSDM data is used, and managed in each product
- Creating an Application Service using the wizard, or API. this video explains each type of Application Service population method.
- Data Foundations Knowledge Article – Provides links to additional CSDM, CMDB and Service Graph resources

Other helpful material:

- Industry: Digital Product white paper – The standard definition used by product-centric IT organizations
- Mapping the TBM Council framework to CSDM white paper
- Industry: IT4IT V3 – Product-centric revision IT management reference architecture
- Future direction: Operating model of the future and more recently architecting the Digital Product portfolios, centered on a Digital Product concept

Conclusion

Your foundation for Business Digital Transformation

The Common Services Data Model 5 (CSDM) should be used as a reference for mapping your business and services into ServiceNow. Additionally, we will be using CSDM to drive standardization and further strengthen the value proposition of using ServiceNow products and services.

ServiceNow brings enormous value for enterprise customers that want real business digital transformation. CSDM, combined with the ServiceNow AI Platform, creates a standard blueprint for automated and digital value networks. With streamlined activities and value streams fully integrated on the ServiceNow AI Platform, you can realize full-value chain alignment, improved quality, transparency, better insights, automation, and lower costs. Ultimately, the combination of CSDM and ServiceNow serves as the foundation for digital transformation.

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