

IT ASSET MANAGEMENT SERVICENOW CONCEPTS AND PROCEDURES GUIDE

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Document Overview

This procedures guide provides information needed to manage hardware computing assets in the IT Hardware Asset Management process enabled on ServiceNow. The document only covers IT hardware assets. Software, fixed assets, and consumables are not covered in this document.

The document is divided into two sections:

- Section 1 covers the basic information needed to understand and use ServiceNow's Hardware Asset management application.
- Section 2 *ServiceNow Asset Management Procedures* details common tasks describing what is done in each of the eight asset lifecycle management activities.

Readers are strongly advised to read and understand Section 1, *Required Concepts* for asset management in ServiceNow. Also, familiarity with the appendixes is recommended. Portions of this guide contain content from the related *IT Hardware Asset Management Process Overview* document describing the basis for the procedures in this document. That document is also available in the ServiceNow knowledge base.

Glossary

A [glossary](#) of common terms is in the Appendices.

Who should use this document?

- IT managers who are responsible for IT computing assets and who use ServiceNow to manage assets
- IT Managers and Supervisors use this document to understand the ServiceNow Asset Management process to align internal work instructions to the guidance in this document.
- Anyone who needs to understand the requirements for the IT Asset Management process and procedures for managing assets

Section 1 Concepts

Basic Concepts

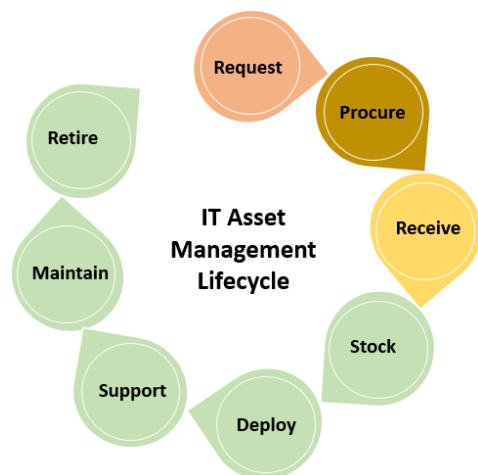
Following is a summary of basic concepts that asset managers and asset analysts must understand to manage assets in the ServiceNow system.

Fundamental Principles

Assets must be accounted for throughout their entire lifecycle – "Cradle to Grave." A chain of custody must be maintained to trace assets from when they are requested to final retirement and disposal.

ServiceNow Asset Lifecycle

The forms used in the ServiceNow asset module are designed to use a lifecycle approach to track and manage assets. Assets are discovered using automated discovery tools that import data into ServiceNow. Asset information is also updated manually throughout the asset lifecycle.



Note: Asset Processes

Green: Process enabled in ServiceNow as of September 2022.

Other colors: These campus processes and related tools and applications are not currently integrated in the core ServiceNow asset application as of September 2022.

LIFECYCLE STAGE	DESCRIPTION
01 Request	An asset begins the lifecycle with a request. Asset requests are processed in a way that invokes the Procurement processes.
02 Procure	Vendors and suppliers engage in the procurement process to provide purchased assets. Departments may use pre-purchasing systems to request and order software. Purchase orders are created to account for purchased assets.
03 Receive	IT organizations receive assets through purchasing processes. Purchase orders are completed when all assets are received.
04 Stock	Physical assets are stored in stockrooms. ServiceNow provides a stockroom application to record inventory on hand and the state of the inventory on hand.
05 Deploy	Assets are deployed when they are formally requested using various forms. Assets are retrieved from stockrooms, built to standard specifications, connected to the network, captured in endpoint management systems (BigFix), and custody of the asset is transferred to the Customer.
06 Support	Operational processes monitor the state of the asset while it is in use. Incidents (break/fix) are identified in the Incident management process. Support teams address incidents and service requests. The chain of custody is tracked when assets are swapped out and while in maintenance.
07 Maintain	Move, add, and change activities are performed to ensure that services dependent on IT assets remain operational and available. Change requests affecting managed assets are recorded in the asset

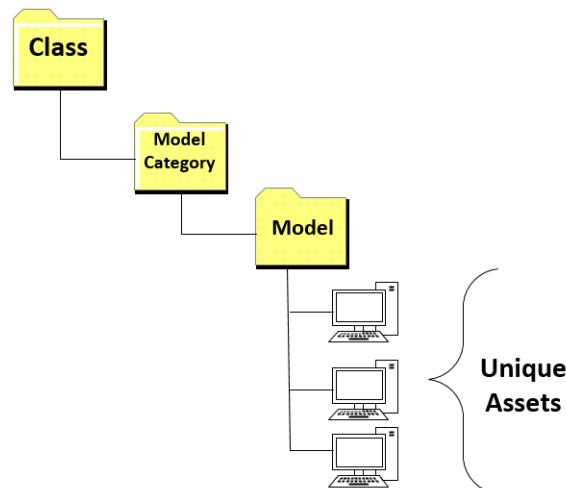
management, change management, and configuration management systems.

08 Retire

Assets are retired when they complete their useful life. Assets are depreciated and removed from service. Activities to complete the final disposition of assets are recorded, and the asset is decommissioned or repurposed in various ways.

Categorizing Assets

Asset categorization is required in ServiceNow. A three-level classification scheme is used under which individual assets with similar characteristics are organized.



Class (Hardware)

Three classes are supported: *Hardware*, *Software*, and *Consumables*. Only **Hardware** is used for a physical asset. Software and Consumables management is out of the scope of this document.

Model Category

A model is a sub-category that represents a product line or family of devices with similar attributes.

Model (Computer)

The Model represents a type of hardware belonging to the selected Hardware class. *Computer*, *Computer Peripheral*, *Mobile Device*, *Printer*, and *Server* models are available for selection.

Unique Assets

ServiceNow enforces asset uniqueness. Asset managers must complete the required fields to create unique assets. Data imported from discovery systems must also provide unique identifiers to avoid creating duplicate asset records in ServiceNow.

Automated Data Import

The BigFix asset discovery system is the primary source of computer asset information. Assets from BigFix are sent to ServiceNow periodically to keep data current and synchronized. Business rules are built into ServiceNow to determine how fields are updated within the Asset and Configuration management applications in ServiceNow.

[Appendix D](#) describes the business rules used to handle imported asset data.

CMDB

The ServiceNow Configuration Management Database (CMDB) stores device data needed for day-to-day operations.

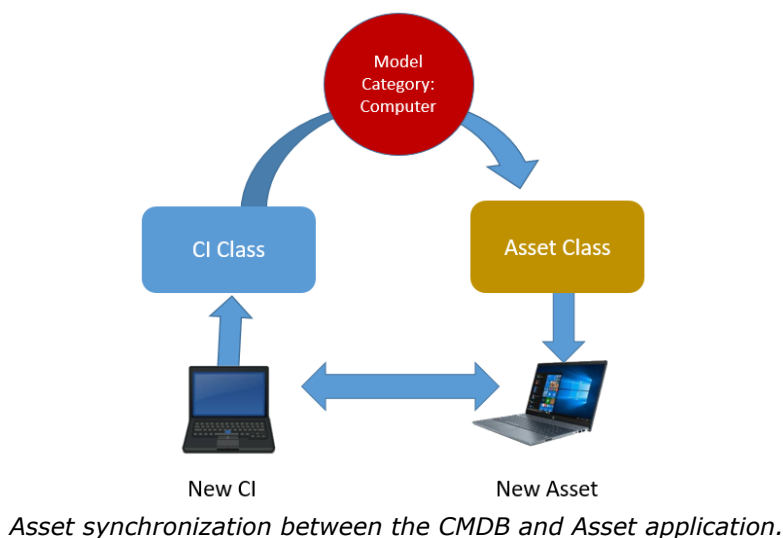
The CI Class Manager

The CI Class Manager may be used to manage Hardware computer assets, and supports other types of assets in the CMDB.

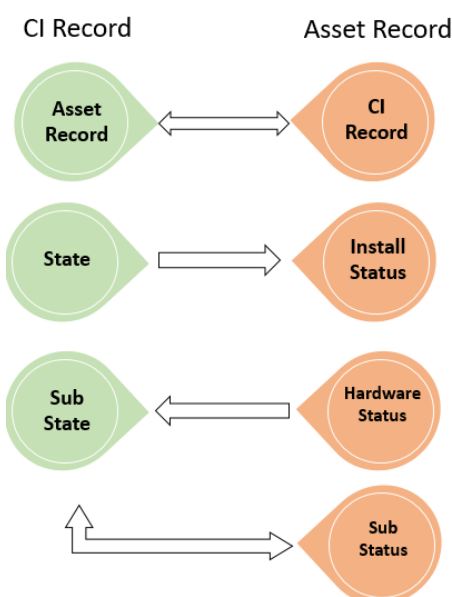
IS-3 Security Classifications

Fields to classify assets per the University's IS-3 policy are maintained only in the CMDB and may be accessed with the CI Class Manager or through the Asset application.

A configuration item is created in the CMDB and maintained whenever hardware asset records are created with the Asset application or through the automated data import. CMDB and asset records are updated automatically to keep them synchronized but can also be added manually using the Asset module.



Some, but not all, fields are synchronized with the CMDB.



Fields synchronized between asset and CMDB:

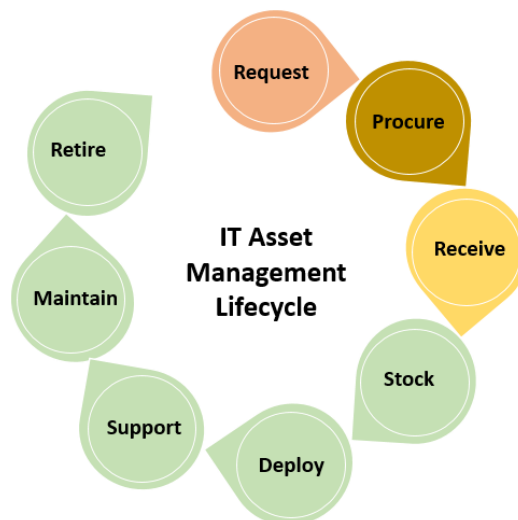
See [Appendix E for field details](#)

Section 2

ServiceNow Asset Management Procedures

Section 2 outlines general procedures for managing IT assets. The roles described are common roles and responsibilities for personnel responsible for managing computing assets.

The process activities are described in detail. The Eight process activities are outlined in detail. Procedures for these activities may vary between campus IT Units.



Note: At the time of this writing, the Request, Procure, and Receive activities are performed in external applications that are not integrated with ServiceNow.

The following sections elaborate on the [ServiceNow asset management lifecycle](#). The procedures outline steps to perform common tasks for asset lifecycle management using the Hardware Asset application.

Roles

The following describes the roles defined for the procedures. People or tools behave as actors who take on roles. Roles outline the responsibilities, activities, and tasks but should not be confused with a person's job description. One person may take on more than one role.

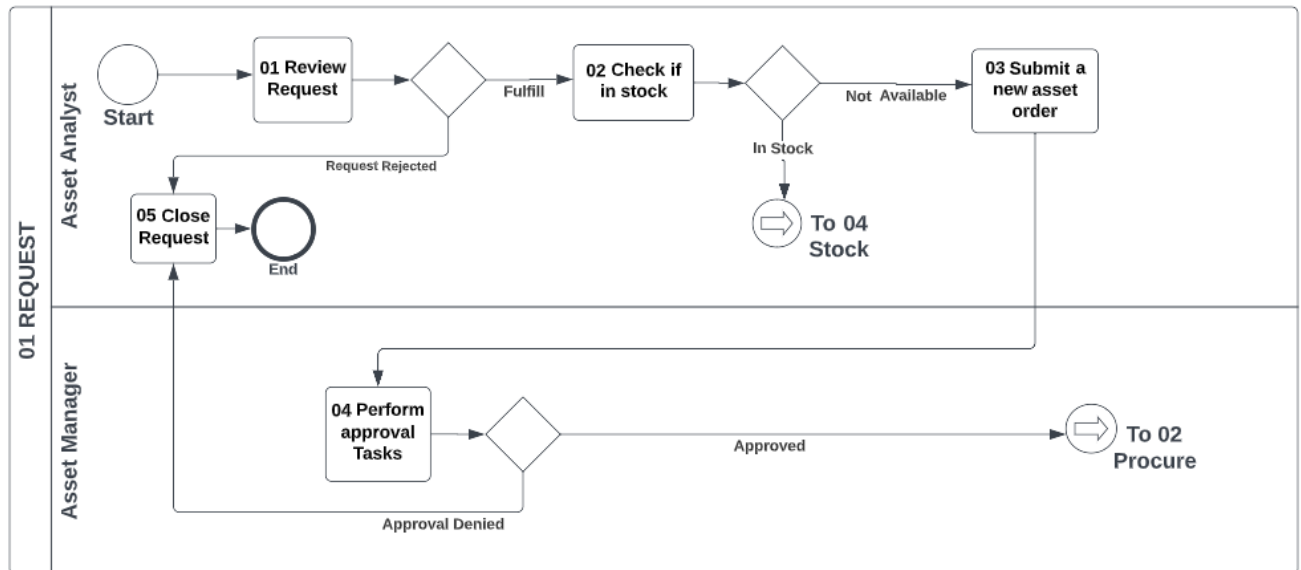
ROLE	DESCRIPTION
Process Owner	<p>A Senior Manager with the ability and authority to ensure the process is rolled out and used by the entire IT organization.</p> <p>Responsible and Accountable for:</p> <ul style="list-style-type: none"> Defining the overall mission of the process Sponsorship, design, and continual improvement of the process and its metrics Establishing and communicating the process mission, goals, and objectives to all stakeholders Ensuring standardization and consistent execution of the process across the organization Reporting on the effectiveness of the process to senior management Initiating any process improvements Resolving any cross-functional (departmental) issues
Asset Owner	<p>Responsible for:</p> <ul style="list-style-type: none"> Supporting, maintaining, controlling, and updating a specific asset or assets All activities that directly affect the actual asset or assets Collaborating with Process Owner on process changes and continual improvement
Asset Manager	<p>Responsible for:</p> <ul style="list-style-type: none"> Managing the day-to-day activities of the process Maintaining data continuity within the IT Asset Repository, including Asset Models Tracking and governing compliance of the process within their team Gathering and reporting on process metrics Escalating any issues with the process to the Process Owner
UISL	<p>Responsible for:</p> <p>The Unit Information Security Lead is identified by the Information Security Office and accountable for ensuring compliance IS-3 policies for classifying IT computing assets.</p>
Asset Analyst	<p>Responsible for:</p> <ul style="list-style-type: none"> Assets defined within the scope of their area Recording and maintaining assets within the Repository Monitoring the asset repository for accuracy & consistency Analyzing data and creating reports Assisting the Asset Manager with audits and report generation Collecting and retaining asset data for risk and cost assessment
Stockroom Manager	<p>Responsible for:</p> <ul style="list-style-type: none"> Accepting deliveries and performing initial validation of products received Identifies discrepancies between items received and packing slips Escalates delivery issues associated with an external vendor into the procurement function

ROLE	DESCRIPTION
	<ul style="list-style-type: none"> Managing inventory and ensuring procurement requests are created when inventory reaches a pre-determined level
Responsible for:	
Procurement Manager	<ul style="list-style-type: none"> Creating procurement requests Issuing POs processed in an external ERP system Providing PO information associated with maintenance contracts Providing information regarding approved vendors Providing details of contractual agreements with vendors
Responsible for:	
Change Manager	<ul style="list-style-type: none"> Ensure that information in Requests for Change (RFC) is accurate Validating all scheduled changes occur Ensuring RFCs are completed or backed out. Enables Asset and Configuration Management for changes that are completed
Responsible for:	
Configuration Manager	<ul style="list-style-type: none"> Ensure that information in the CMDB is consistent with approved changes and asset records Validating that configuration item data are captured and current Verify configured relationships between assets Periodically audit the CMDB and initiating corrective actions
Responsible for:	
Customer	<ul style="list-style-type: none"> Accepts assigned assets Uses assets consistent with UC Davis policies Complies with security standards and required training Completes IS-3 Data Classification surveys when requested by asset managers

01 REQUEST Activity

PURPOSE

Determine if *new* assets are needed and order them. Before ordering new assets, asset managers check available stock. Request and approval records are created for new assets to start the chain of custody.



Tools

ServiceNow Request forms

ServiceNow incident tickets (Request type)

Departmental human resource onboarding/off-boarding applications

01 Tasks		NEEDS (input)	DELIVERS (Output)
01.01 Review Request	Review a request for a new asset. Verify that information needed is complete for asset traceability in ServiceNow. Accept or deny the request.	A written request in a campus system used to request assets	A record indicating acceptance or denial of the request
01.02 Check if in stock	Check the stockroom(s) to determine if assets are available to deploy.	A request record with request and asset details sufficient to fulfill the request	Confirmation of asset in stockroom (available) Or Confirmation of asset out-of-stock
01.03 Submit a new asset order	If assets are in stock, proceed with activity 04 Stock. The <i>Asset Analyst</i> submits an order for the purchase of new assets if assets are not available in stock.	Confirmation of out-of-stock	An order for a new asset pending approvals
01.04 Perform approval tasks	The <i>Asset Manager</i> approves requests for new asset purchases. The <i>Asset Analyst</i> updates the customer request: <ul style="list-style-type: none"> - If the request is approved, proceed to the activity 02 Procure. - If the request is not approved, the Asset Analyst performs task 01.05 	Asset purchase request pending approval	Approved or denied request record
01.05 Close the Request	The Asset Analyst updates the request indicating approval, and closes it.	A denial decision from the request record	A closed Request record with a notification to the Customer

References (links are subject to change)

[UC Davis Procurement](#)

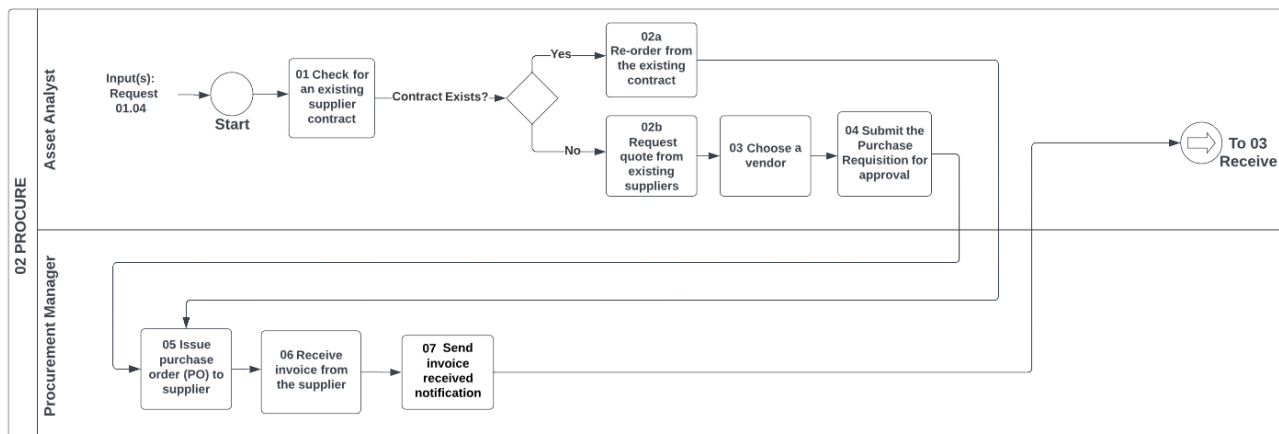
[AggieBuy Training](#)

02 PROCURE Activity

Purpose

Purchase or acquire assets from new or existing suppliers. Ensure procurement traceability in ServiceNow with data entered from procurement systems.

Note: External campus systems currently enable the procurement process. Manual steps are required to input data from campus systems into ServiceNow (such as a PO number).



Tools:

- Pre-purchasing
- Aggie Buy
- KFS (Kuali Financial Services)
- Procurement Card

02 Tasks		NEEDS (input)	DELIVERS (Output)
02.01 Check for an existing supplier contract	<p>Understand UC purchasing policies.</p> <p>Determine if your unit or department uses a pre-purchasing system.</p> <p>Determine if there are past departmental purchasing agreements and transactions you can review and use.</p> <p>Identify the approved supplier contract if it exists.</p> <p><i>Note 1:</i> Access to systems (tools) must be granted before using procurement and purchasing systems.</p>	01.04 a request for assets	<p>Understand UC purchasing policies</p> <p>Identification of active agreements to purchase requested assets</p> <p>Identification of approved suppliers for new purchase requisitions</p>
02.02a Reorder from the existing contract	<p>If an active contract exists, follow departmental pre-purchasing or UC purchasing procedures to re-order assets. Refer to Strategic Sourcing for information on how to buy against an agreement.</p>	An order for an asset against an existing agreement	PO to the supplier
02.02b Request a quote from existing suppliers	<p>If a new purchasing agreement is needed, refer to Strategic Sourcing for how to buy. Request a quote for new assets from suppliers.</p> <p><i>Note 1:</i> Before creating a KFS Requisition, you should check first to see if the requested item(s) are available in AggieBuy, the UC Davis e-procurement system. If so, the transaction should be processed through AggieBuy and not on the KFS Requisition.</p> <p><i>Note 2:</i> There are two important university policies with which you should be familiar: Covered Services, which limits the types of services that can be contracted with outside suppliers, and Small Business First, which requires the use of a certified Small Business (SB) or Disabled Veteran Business Enterprise (DVBE) for most purchases between \$10K and \$250K.</p>	<p>See Purchasing Documents:</p> <p>https://financeandbusiness.ucdavis.edu/systems/kuali/docs/purchasing/reqs#5</p>	<p>Verification that items are not in Aggie Buy</p> <p>Price quotes for assets from multiple suppliers</p>
03 Choose a vendor	Follow UC-approved methods to select a supplier to purchase assets.	02.02b An approved vendor to purchase assets	A new vendor selected to purchase assets

02 Tasks		NEEDS (input)	DELIVERS (Output)
04 Submit purchase requisition for approval	<p>Follow purchasing system procedures to submit a new purchase requisition.</p> <p><i>Note: The Requisition is NOT a Purchase Order. It is a request for the creation of a Purchase Order.</i></p>	<p>02.03 A chosen supplier for purchasing assets</p> <p>Details about needed assets</p> <p>KFS system or a Procurement Card</p>	A purchase requisition for new assets
05 Issue purchase order (PO) to supplier	A Purchase Order is created once all appropriate approvals have been secured, including from the fiscal officer assigned to the account(s) cited on the request. Once the document is finalized, the initiator of the KFS Requisition receives a copy of the PO in their KFS Action List.	02.04 purchase requisition	Copy of PO in KFS
06 Receive invoice from the supplier	Review the received invoice(s) in the purchasing system.	02.05 Issued purchase order	Internal confirmation that the campus department receives the invoice
07 Send invoice received notification	Inform the supplier that the invoice is received (but line items are not verified as a receipt.)	Internal confirmation that the campus department receives the invoice	Vendor notification that the invoice has been received

References (links are subject to change)

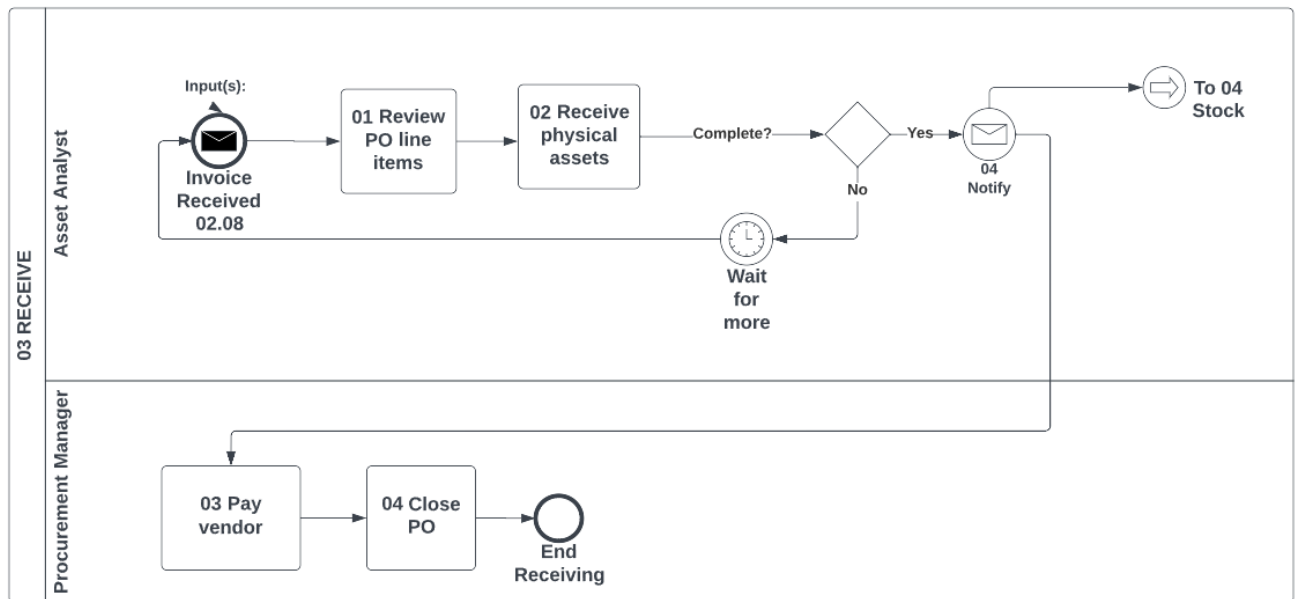
[AggieBuy Training](#)
[Strategic Sourcing](#)
[UC Davis Procurement](#)
[Kuali Finance System Requisition Document Help](#)

03 RECEIVE Activity

Purpose

Receive purchased assets from suppliers. Close the purchase orders.

Note: External campus systems currently enable procurement. Manual steps are required to input data from campus systems into ServiceNow.



Tools

ServiceNow

Purchasing system

03 Tasks		NEEDS (input)	DELIVERS (Output)
03.01 Review PO line items	Review the line items on the fulfilled purchase order(PO). <i>Note: Some items may come in multiple batches.</i>	02.06 An invoice from the supplier in the purchasing system	Information about what was received vs. what was ordered and expected
03.02 Receive physical assets	Review the physical assets sent by the vendor for completeness, accuracy, and quality. Complete line item receiving documentation. Repeat this process until all items in the purchase order are received. See Line Item Receiving Document		Completed line item receiving documentation in the purchasing system
03.03 Pay vendor	Complete the Line Item Receiving document. If more than one shipment is received for the same order on the same day, combining multiple shipments for the same PO on the same Receiving document is acceptable. Note: Some vendors require pre-payment before delivery of items. Refer to Strategic Sourcing for details.		Completed payment to the vendor

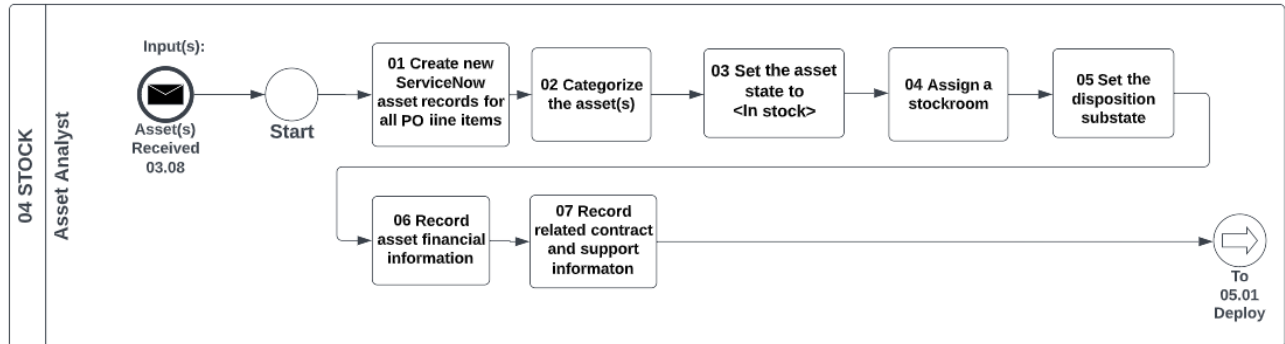
References (links are subject to change)

[Strategic Sourcing](#)
[UC Davis Procurement](#)

04 STOCK Activity

Purpose

Record new assets for purchased items into ServiceNow stockrooms. Categorize and record asset details before deployment.



Tools

ServiceNow

Purchasing system (Purchase order)

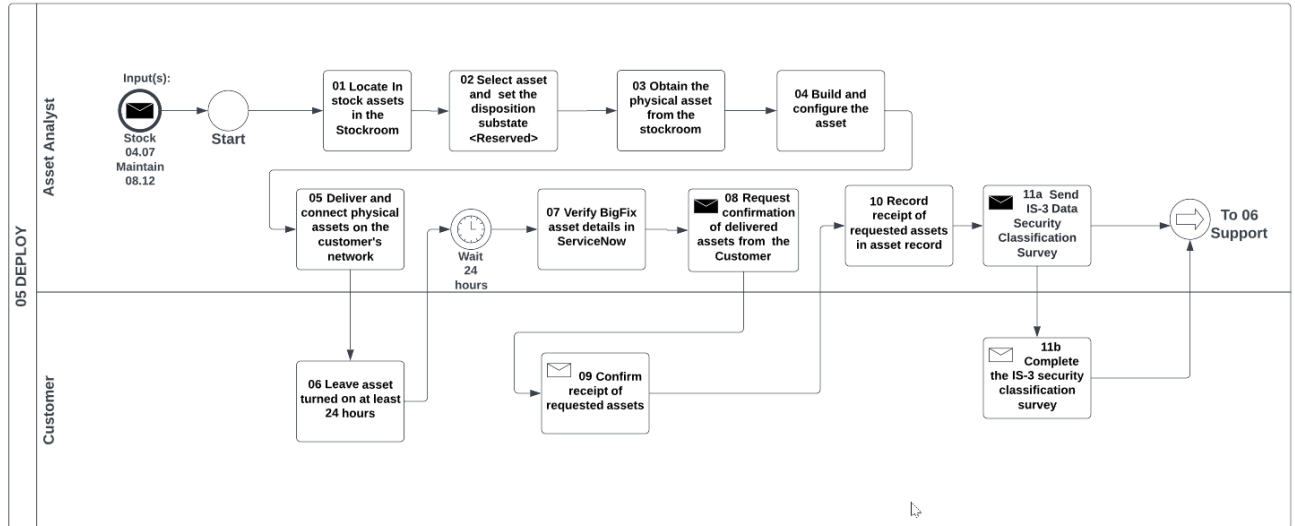
04 Tasks		NEEDS (input)	DELIVERS (Output)
04.01 Create new ServiceNow asset records for all PO line items	Create new asset records for received assets in ServiceNow.	New assets in stock	Asset record ready for data input
04.02 Categorize the asset(s)	The following fields must be filled in on the ServiceNow asset form: <ul style="list-style-type: none"> • Model category • Model • Manufacturer • Serial number 	03.02 received assets from the purchasing process 03.04 the closed PO related to the assets	Asset categorized in a ServiceNow stockroom.
04.03 Set the asset state to In stock	Change the State field to <i>In stock</i> .	04.01 the asset record. 04.02 a categorized asset	The asset lifecycle in ServiceNow is set to <i>In stock</i>
04.04 Assign a stockroom	Choose an existing stockroom to associate with the asset.	04.03 an asset in the <i>In stock</i> state	The asset has a stockroom associated with it, indicating where the asset is stored
04.05 Set the disposition substate	Set the substate field as appropriate: <ul style="list-style-type: none"> • Available • Reserved 	04.03 an asset in the <i>In stock</i> state	The disposition of the asset is set as appropriate.
04.06 Record asset financial information	Record financial details in the asset form's financial section. Complete one of the following fields: <ul style="list-style-type: none"> • Request line (if the request was associated with a ServiceNow request item) • PO Number • Invoice number Record the date the asset was purchased. Record cost information as appropriate.	The purchase order associated with the asset	Financial data for asset traceability to the purchasing system is recorded in ServiceNow
04.07 Record related contract and support information	Record lease and warranty information in the ServiceNow asset record. Capture the support group information while the item is <i>in stock</i> . (if the support group changes in deployment, change it in the Deploy activity.)	04.03 an asset in the <i>In stock</i> state	Contract, warranty, and lease information about the asset

References (links are subject to change)

05 DEPLOY Activity

Purpose

Prepare assets for deployment. Ensure assets are connected to the Customer's network so BigFix can discover them. Ensure the Customer acknowledges receipt of assets and IS-3 surveys are sent to the Customer.



Tools

ServiceNow

Standard asset build procedures (specific to departments)

IS-3 Data classification survey (specific to departments)

05 Tasks		NEEDS (input)	DELIVERS (Output)
05.01 Locate in- stock assets in the stockroom	Use the ServiceNow stockroom(s) application to find an <i>In stock</i> asset <i>available</i> for deployment.	04 Stock activity completed In-stock assets available for use	An asset is chosen to deploy
05.02 Select an asset and set the disposition substate <Reserved>	Reserve the asset. Change the Substate of the asset to indicate it is <i>Reserved</i> .	05.01 An asset is chosen to deploy	An asset record indicating the asset is <i>Reserved</i>
05.03 Obtain the physical asset from the stockroom	Take physical possession of the asset from the stockroom. Update the ServiceNow asset record: Assign the asset to the Asset Analyst responsible for building the asset <ul style="list-style-type: none"> Update the location information that indicates where the asset is being built and configured 	05.02 An asset record indicating the asset is <i>Reserved</i> 07.02 Swap/Repair defective asset	Physical custody of a <i>Reserved</i> asset An updated record indicating that the physical asset is assigned to the Asset Analyst building the device
05.04 Build and configure the asset	Perform build tasks per departmental procedures.	05.03 Physical custody of a <i>Reserved</i> asset Standard asset build procedures (specific to departments)	A physical asset configured and ready for deployment

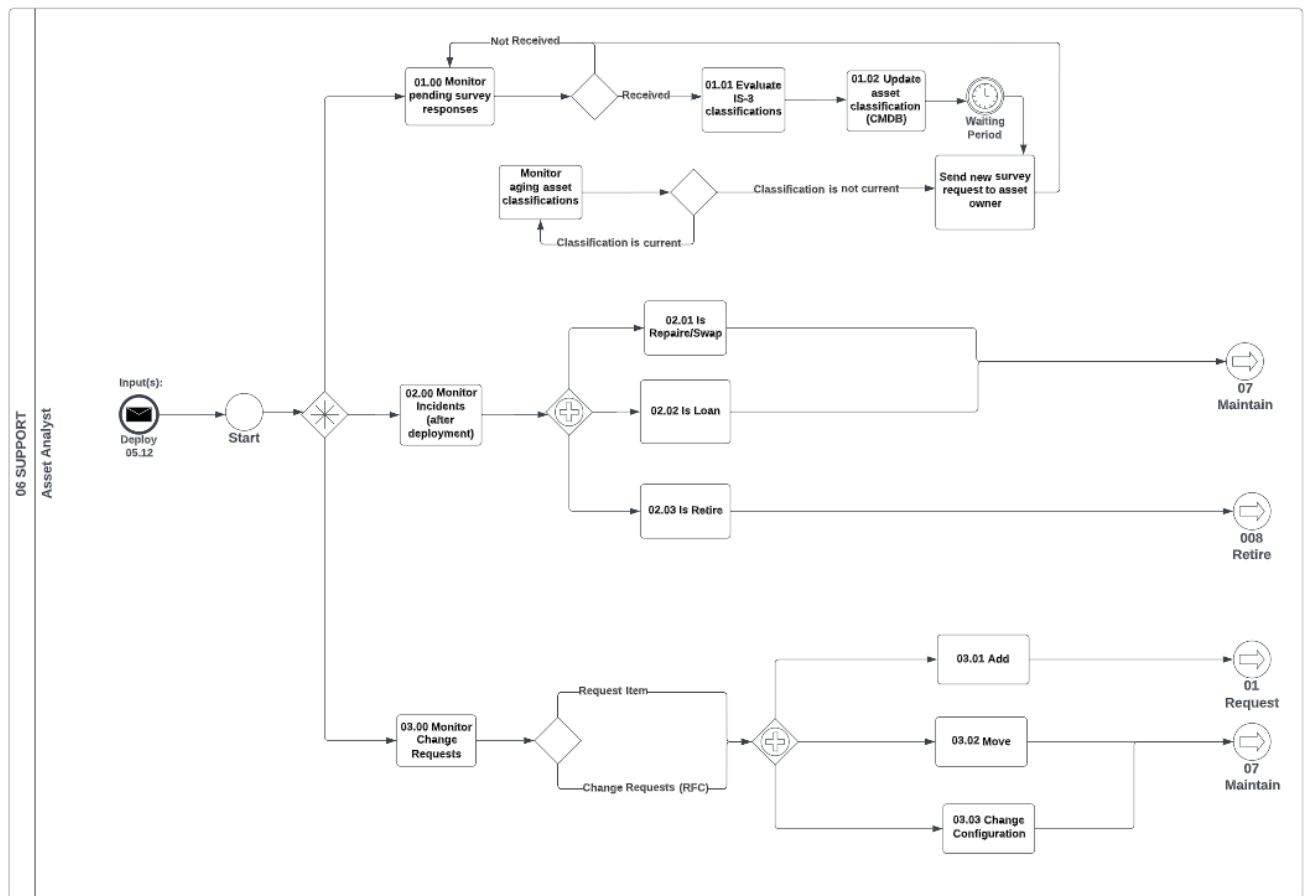
05 Tasks		NEEDS (input)	
05.05 Deliver and connect the physical assets on the Customer's network	<p>Schedule a delivery date and deliver the asset.</p> <p>Connect the asset to the Customer's network.</p> <p>Update the ServiceNow record to indicate the location of the asset.</p> <p><i>Note: If the Customer works remotely from home, connect the device to the network on campus.</i></p>	05.04 A physical asset configured and ready for deployment	<p>An asset connected to a network location that is discoverable by an endpoint discovery tool</p> <p>The asset record is updated to indicate the location of the asset</p>
05.06 Leave asset turned on at least 24 hours	<p>Provide the Customer with instructions to leave the asset turned on and connected to the network for at least 24 hours. (This is required for BigFix asset discovery.)</p> <p>In ServiceNow:</p> <ul style="list-style-type: none"> Update the location of the asset Enter the date when the asset was installed on the Customer's network <p><i>Note: The asset is assigned to the Customer after receipt of physical custody is confirmed in writing. (Task 5.10)</i></p>	05.05 Deliver and connect the physical asset on the Customer's network	<p>The Customer is instructed not to disconnect nor turn off the asset for a minimum of 24 hours</p> <p>The location information of the asset record is updated</p> <p>The installation date is entered in the asset record</p>
05.07 Verify BigFix asset details in ServiceNow	<p>Wait 24 hours after the asset is connected to the Customer's network.</p> <p>In ServiceNow:</p> <ul style="list-style-type: none"> Verify that BigFix discovered the asset 	05.06 Leave asset turned on at least 24 hours	Confirmation that BigFix discovered the asset
05.08 Request confirmation of delivered assets from the Customer	Request confirmation of received assets from the Customer	05.07 Confirmation that BigFix discovered the asset	A request to the Customer to confirm receipt of assets
05.09 Confirm receipt of requested assets	The Customer confirms the receipt of assets.	05.08 A request to the Customer to confirm receipt of assets	A completed survey from the Customer
05.10 Record receipt of requested assets in asset record	<p>After the Customer confirms receipt of the asset, in ServiceNow:</p> <ul style="list-style-type: none"> Change the state of the asset to <i>In use</i> Assign the asset to the Customer Enter the date the asset was assigned to the Customer 	05.09 Written confirmation of assets received from the Customer	The asset record is updated to indicate the date the Customer accepted custody of the asset
05.11a Send IS-3 Data Security Classification Survey	<p>Send an IS-3 Data Security Classification Survey with the time frame required to respond.</p> <p>In ServiceNow, update the Activities work note to indicate when the survey was sent.</p>	05.10 Written confirmation of assets received from the Customer	A request is sent to the Customer to return the IS-3 Data Security Classification survey by a due date
05.11b Complete the IS-3 Data Security Classification Survey	The Customer must complete the IS-3 Data Security Classification survey and return it to the support group.	05.11a A request to the Customer to return the IS-3 Data Security Classification survey by the due date	A completed survey from the Customer

References (links are subject to change)

06 SUPPORT Activities Overview

Purpose

Support IT assets after deployment. This diagram shows three key activities discussed in the pages that follow.



Tools:

- (See detailed activities below)

06 Tasks		NEEDS (input)	DELIVERS (Output)
06.01.00 Monitor pending survey responses	IS-3 compliance surveys sent to customers must be continually monitored to ensure Customers complete and return them. Activity 06.01 provides task details in the pages that follow.	05 Deploy activity completed	See Activity 06.01.01
06.02.00 Monitor incidents (after deployment)	Incidents are a source of activities that may require repairs, swapping out assets, providing loaner assets, or triggering retirement tasks. Asset analysts identify and handle these tasks and ensure the chain of custody is maintained, and records reflect changes. Activity 06.02 provides task details in the pages that follow.	05 Deploy activity completed	See Activity 06.02.01

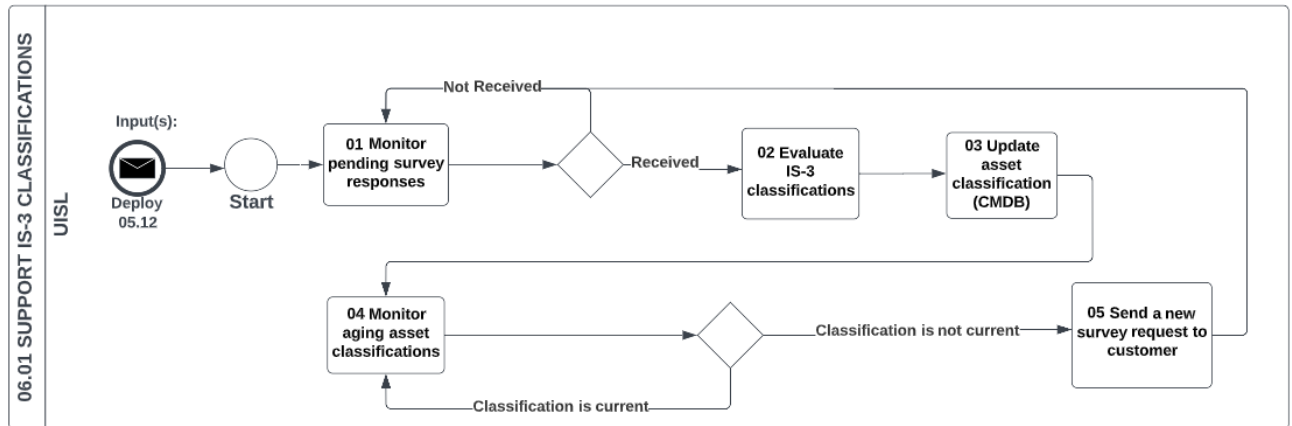
06 Tasks	NEEDS (input)	
06.03.00 Monitor Change Requests	<p>Change requests are a source of activities that may require repairs, swapping out assets, providing loaner assets, or triggering retirement tasks.</p> <p>Change requests may come as tickets from the Change Management process, Request Items, or external ticketing systems.</p> <p>Asset analysts identify and handle these tasks and ensure the chain of custody is maintained, and records reflect changes.</p> <p>Activity 06.03 provides task details in the pages that follow</p>	<p>05 Deploy activity completed</p> <p>See Activity 06.03.01</p>

References (links are subject to change)

06.01 SUPPORT IS-3 Classifications

Purpose

Surveys sent to customers must be monitored for completeness. IS-3 data received from customers are evaluated and updated in asset records by the Unit Information Security Lead (UISL).



Tools

- ServiceNow CMDB
- IS-3 Data Classification Guide

06.01 Tasks		NEEDS (input)	DELIVERS (Output)
06.01.01 Monitor pending survey responses	Monitor the status of deployed assets whose assignees have not returned the IS-3 Data Certification survey.	05.11a Sent IS-3 Data Security Classification survey to owner	Monitoring of IS-3 Data Classification survey responses Identification of pending or overdue survey responses
06.01.02 Evaluate IS-3 classifications	Review returned IS-3 Data Classification surveys.	Completed IS-3 Data Classification surveys IS-3 Data Classification. Guide	An assessment of the IS-3 Data Classification for the assets in the survey
06.01.03 Update asset classification (CMDB)	Enter the data classification in ServiceNow. Data classifications are maintained in the configuration management database.	06.01.02 An assessment of the IS-3 Data Classification for the assets	The data classification levels of the asset are recorded in ServiceNow
06.01.04 Monitor aging asset classifications	The data classification levels of assets must be periodically re-assessed. Monitor the aging of the data classification levels for supported assets.	Date of latest classification level assessment	Identified assets needing IS-3 data recertification
06.01.05 Send a new survey request to Customer	Send a new IS-3 Data Classification survey to Customers with a due date.	06.01.04 Identified assets needing IS-3 data recertification	A request is sent to the Customer to return the IS-3 Data Security Classification survey by a due date

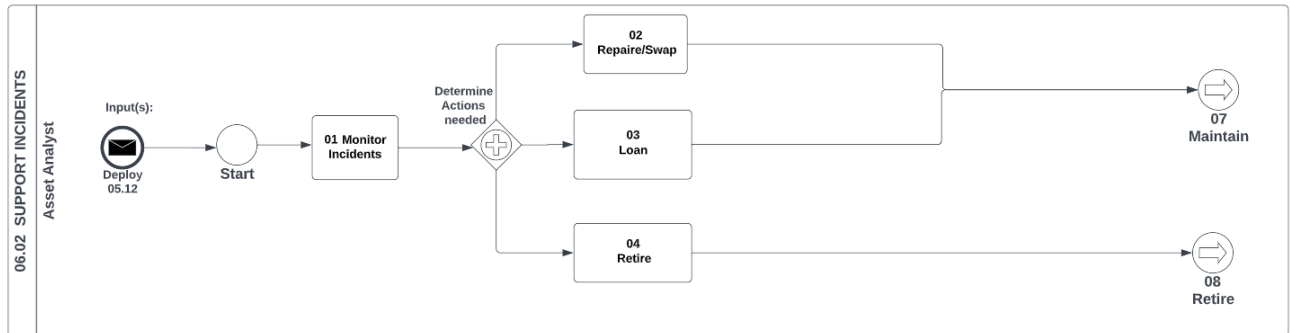
References (links are subject to change)

[IS-3 Data Classification Guide](#)

06.02 SUPPORT INCIDENTS Activity

Purpose

Incidents are a source of activities that may require repairs, swapping out assets, providing loaner assets, or triggering retirement tasks. Asset analysts identify and handle these tasks and ensure the chain of custody is maintained, and records reflect changes.



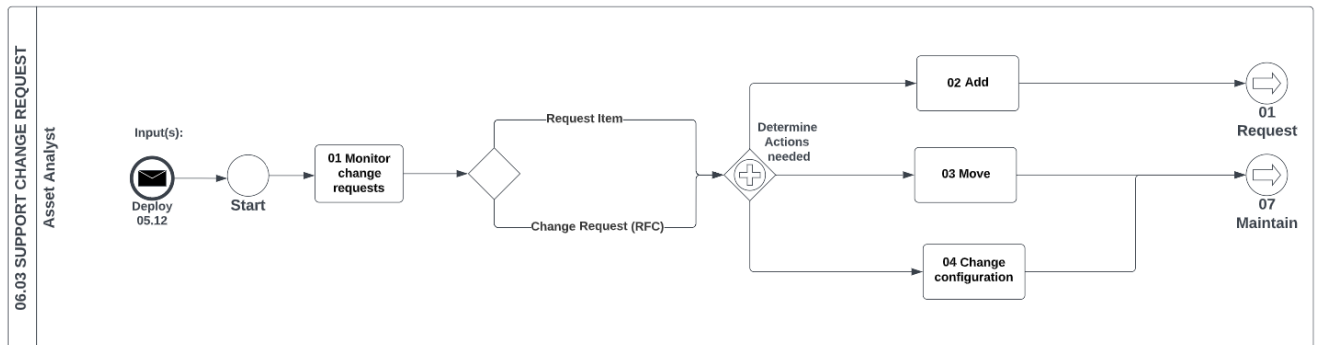
06.02 Tasks		NEEDS (input)	DELIVERS (Output)
06.02.01 Monitor Incidents	Identify incidents related to assets in ServiceNow. <i>Note: Incidents are used to report break-fix issues and to request services that are not in offered in service catalogs.</i> <i>Note: A monitored dashboard and scheduled reports may facilitate this task.</i>	ServiceNow incident tickets	Incident records related to assets in ServiceNow
06.02.02 Repair/Swap	Identify assets that need repairs and possibly need to be swapped out with a temporary asset while the asset is undergoing repairs. Handle them in Activity 07 Maintain	06.02.01 Incident records related to assets in ServiceNow	Assets in need of repair and/or swap-out are identified
06.02.03 Loan	Identify requests for loaned assets Handle them in Activity 08 Retire	06.02.01 Incident records related to assets in ServiceNow	Requests to provide loaned assets identified
06.02.04 Retire	Identify: <ul style="list-style-type: none"> Aging assets that are approaching retirement Fully depreciated assets Damaged assets no longer covered by a manufacturer's warranty. Handle them in Activity 08 Retire	06.02.01 Incident records related to assets in ServiceNow	Assets nearing retirement or in need of retirement are identified

References (links are subject to change)

06.03 SUPPORT CHANGE REQUESTS Activity

Purpose

Change requests are a source of activities that may require repairs, swapping out assets, providing loaner assets, or triggering retirement tasks. Change requests may come in as tickets from the Change Management process or ticketing systems and forms. Asset analysts identify and handle these tasks and ensure the chain of custody is maintained, and records reflect changes.



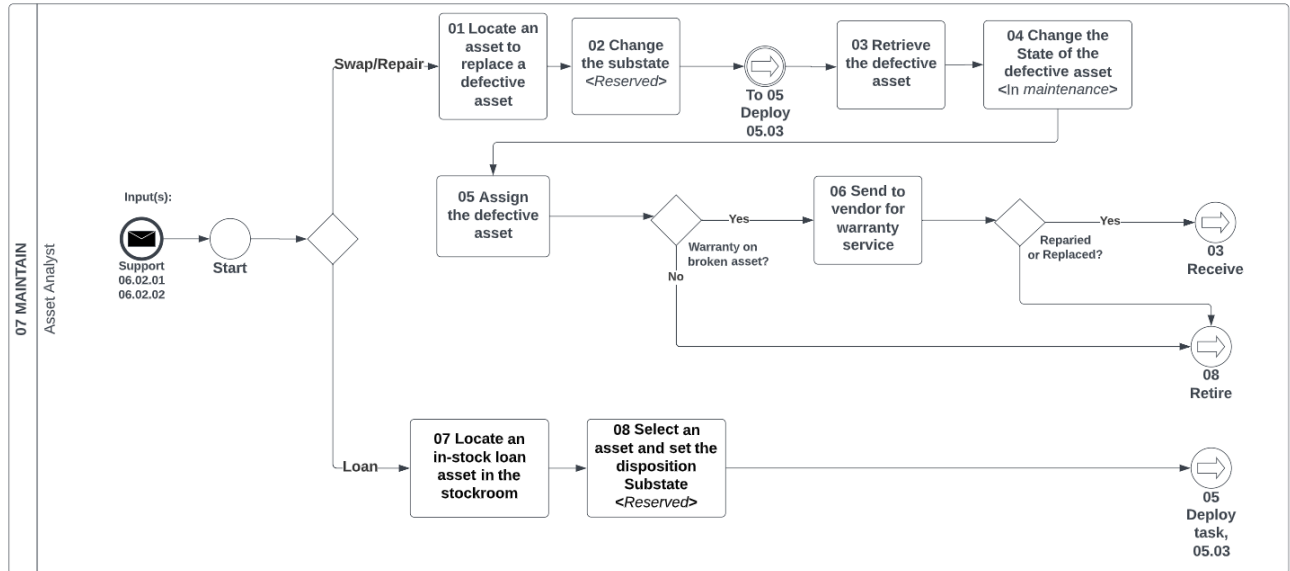
06.03 Tasks		NEEDS (input)	DELIVERS (Output)
06.03.01 Monitor change request	Identify change requests related to assets in ServiceNow. <i>Note: A monitored dashboard and scheduled reports may facilitate this task.</i>	Change Management records (RFC) ServiceNow Request items	Records of change requests associated with assets
06.03.02 Add	Identify change requests to add new assets into production. Handle them in Activity 01 Request	Change Management records (RFC) ServiceNow Request items	Hardware assets added into the production environment A record of assets added is created in ServiceNow
06.03.03 Move	Identify change requests to add and move assets from one location to another Handle them in Activity 07 Maintain	Change Management records (RFC) ServiceNow Request items	Existing assets are moved. A record of asset movement activity is created in ServiceNow
06.03.04 Change configuration	Identify change requests that require a change to asset configurations (software, hardware, security, etc.) Handle them in Activity 07 Maintain	Change Management records (RFC) ServiceNow Request items Suppliers change notifications and patch notices	Records recording configuration changes to assets are created in ServiceNow

References (links are subject to change)

07 MAINTAIN Activity

Purpose

Deployed assets are maintained. Ensure that maintenance tasks record the state, location, ownership, and details of activities in ServiceNow to maintain the chain of custody. Maintenance of assets may require repairs, swapping out, providing temporary loans, or retirement of assets.



Tools

- ServiceNow asset and stockroom modules
- Supplier contracts and warranties

07 Tasks		NEEDS (input)	DELIVERS (Output)
07.01 Locate an asset to replace a defective asset	Locate an asset in ServiceNow that is in-stock and available to replace a defective asset.	06 Support Incidents: 06.02.01.02,	An asset to swap out for the defective asset
07.02 Change the asset Sub state to reserve the asset <Reserved>	Change the asset's sub-state, so it is reserved for use. Handle the asset in Activity 05 Deploy , starting with task 05.03 to prepare for the deployment of the replacement asset.	07.01 An asset to swap out for the defective asset	A new ServiceNow record for an asset that will be deployed to swap out a defective one
07.03 Retrieve the defective asset	Retrieve the defective asset from the Customer. <i>Note: This task can be performed at the same time when the swapped asset is delivered to the Customer (in Activity 05 Deploy, task 05.05)</i>	07.01 An asset to swap out for the defective asset	The defective asset identified in the incident ticket is retrieved from the Customer
07.04 Change the state of the defective asset <In maintenance>	In ServiceNow, change the state of the defective asset to <i>In maintenance</i> .	The defective asset identified in the incident ticket is retrieved from the Customer	The ServiceNow asset record is updated to indicate it is undergoing maintenance
07.05 Assign the defective asset	Change custody of the asset to the Asset Analyst responsible for maintenance of the defective device.	The ServiceNow asset record is updated to indicate it is undergoing maintenance	Custody of the defective asset is transferred to the Asset Analyst
07.06 Send to the vendor for warranty service	If the asset has a maintenance warranty, follow warranty requirements and send the asset to the vendor for repairs. If the asset does not have a maintenance warranty, handle the asset in Activity 08 Retire .	07.05 Custody of the defective asset is transferred to the Asset Analyst	The asset is sent out for warranty service or reviewed for retirement.

07 Tasks		NEEDS (input)	DELIVERS (Output)
07.07 Locate an in-stock loan asset in the stockroom	Locate an available loaner asset from the stockroom.	06.02.01.03 Requests to provide loaned assets identified	A loaner asset is identified.
	<i>Note: Perform this task when a loaner asset is needed. Asset loaners might not be tracked if they no longer have manufacturer's warranties, are expired, or have reached their end of life.</i>		
07.08 Select an asset and set the disposition Substate to <Reserved>	In ServiceNow, change the Substate to <i>Reserved</i> .	07.07 A loaner asset is identified	The state of the loaner asset is reserved for processing in Activity 05 Deploy, starting with task 05.03.
	Handle the loaner asset in Activity 05 Deploy, starting with task 05.03. <i>Note: Loaner assets may not require all steps in activity 05 Deploy.</i>		

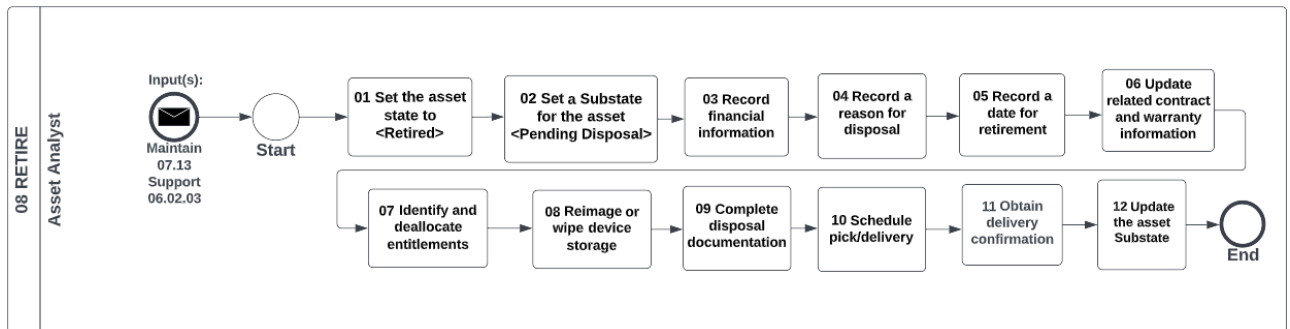
References (links are subject to change)

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08 RETIRE Activity

Purpose

Assets that reach their end of life follow steps to retire them. Retired assets may be repurposed or disposed. Record the final disposition of assets planned for retirement.



08Tasks		NEEDS (input)	DELIVERS (Output)
08.01 Set the asset state to <Retired>	Change the State of the asset to <i>Retired</i> .	07.05 decision to retire the asset	The ServiceNow record is updated to indicate <i>Retired</i>
08.02 Set a Substate for the asset <Pending>	Change the Substate of the asset to <i>Pending</i> .	08.01 The ServiceNow record is updated to indicate Retired	The ServiceNow record is updated to the <i>Pending</i> disposal Substate
08.03 Record financial information	In ServiceNow: Update the Financial section of the ServiceNow record as appropriate.	08.02 The ServiceNow record is updated to the <i>Pending</i> disposal Substate	Asset financial data are updated in ServiceNow (as appropriate)
08.04 Record a reason for disposal	In ServiceNow: <ul style="list-style-type: none"> Enter the reason for disposal Scheduled retirement date OR Actual retired date 	The ServiceNow record is updated to the <i>Pending</i> disposal Substate	The ServiceNow record is updated with the reason for disposal
08.05 Update related contract and warranty information	In ServiceNow <ul style="list-style-type: none"> Update or add the related lease contract (if necessary) Enter the warranty expiration date Change the support group to the name of the group that is retiring the asset Remove custody from individuals. (Leave the support group in the record.) <p><i>Note: Some Contract information may already be recorded. The ServiceNow 'Supported by' field should be blank in Retired assets.</i></p>	The ServiceNow record is updated to the <i>Pending</i> disposal Substate	Changes to warranty information are recorded in the retired asset record
08.06 Identify and deallocate/harvest entitlements	Identify software and entitlements on the device. Deallocate them from the device—update software consoles to harvest licenses and entitlements for reuse.	The ServiceNow record is updated to the <i>Pending</i> disposal Substate	Software and entitlements are identified and harvested from the device.
08.08 Reimage or wipe device storage	Follow internal procedures to wipe hard drives of data to prepare for final disposal.	08.07 Software and entitlements are identified and harvested from the device.	The asset data are wiped from the device following departmental procedures
08.09 Complete disposal documentation	Follow internal procedures to complete disposal documentation.	08.08 The asset data are wiped from the device following departmental procedures	Documentation to ship assets is completed per departmental procedures
08.10 Schedule the pickup /delivery	Follow internal procedures to schedule pickup and delivery of the asset for disposal.	08.09 Documentation to ship assets is completed	A date is scheduled to pick up and deliver the asset to a disposal location

08Tasks		NEEDS (input)	DELIVERS (Output)
		per departmental procedures	
08.11 Obtain delivery confirmation	Get confirmation of delivery or disposal of the asset. <i>Note: A delivery confirmation record should exist in a system of record or ServiceNow. Update ServiceNow work notes as needed.</i>	08.09 A date is scheduled to pick up and deliver the asset to a disposal location	Delivery of the asset is confirmed
08.12 Update the asset Substate	Change the asset Substate from Pending to on that indicates the disposal method.		The ServiceNow record is updated with a final Substate indicating the method of disposition

References (links are subject to change)

Appendix A: Glossary

TERM	MEANING
Asset Category (ServiceNow)	The top-level category is used to categorize asset types in ServiceNow. Asset categorization is mandatory in ServiceNow
Asset Management	A set of process activities responsible for tracking and reporting the value and ownership of assets throughout their lifecycle
Asset Management Plan	A roadmap or strategy created by Leadership to establish, maintain and improve asset management in an organization
Asset Management Process	The sequence of activities, tasks, and work instruction used to perform work that achieves asset management objectives
Asset Management System	The Leadership organization, strategy, plans, processes, procedures, technology, vendors, and people used to achieve asset management objectives in a coordinated, systematic framework
Asset Tag	A field on the ServiceNow asset record used to identify assets uniquely
Availability	It ensures timely and reliable access to and use of information
BigFix	An endpoint management system is used to identify assets on the campus network. BigFix provides asset data to the ServiceNow cloud application so that it can be managed in ServiceNow
Capability (ITAM)	A measure of the ability of an entity (system, person, or organization) to achieve its objectives
Change Management	The process responsible for controlling changes to the production IT infrastructure and its services
CMDB	Configuration Management Database
Change Request	A request for a change to a production service, service component, or IT assets. Change requests may originate in the Change Management process, ServiceNow request items, or incident tickets.
Confidentiality	Preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information. Source: NIST FIPS Publication 200
Configuration Item	A component required to deliver an IT service. A component is a part of an assembly of a product or service and has a relationship to other components that constitute a product or service
Configuration Management	The process is responsible for maintaining information about Configuration Items required to deliver an IT Service, including their Relationships. This information is managed throughout the Lifecycle of the CI.
Configuration Management	Management of the physical and functional information of a system, asset, and its sub-system and assemblies
Configuration Management Database	A database used to identify service assets and their relationship to services and other physical components of a system
Conformity	Fulfillment of a requirement
Continual Improvement	<ol style="list-style-type: none"> 1. Reoccurring activities that are performed continually to improve and mature a process, product, or system 2. The activities in the Plan, Do, Check, Act process
Hardware Asset	A physical item such as a laptop, tablet, printer, or mobile device that has potential or actual value to an organization

Incident	An unplanned event or occurrence resulting in a service degradation, asset damage, or other loss
Integrity	The property that data has not been altered in an unauthorized manner. Data integrity covers data in storage, during processing, and while in transit. Source(s): NIST SP 800-133 Rev. 2
IT	An acronym for 'Information Technology
ITAM	1. Information Technology Asset Management 2. An asset management product of ServiceNow
KPI	Key performance indicator
Lansweeper	An endpoint management system used to identify assets on the UC Davis campus network
Leadership (Top Management)	A person or group of people who directs and controls an organization at the highest level
NIST	National Institute of Standards: nist.gov
Objective	A result to be achieved
Organization	A business unit or group of people formed to accomplish a mission or objective. It has its functions with responsibilities, authorities, and relationships
PO	Purchase Order
Procedure	A logical sequence of steps that outlines the workflow to complete an activity in a process
Process	A set of interrelated or interacting activities which transforms inputs into outputs. Process activities are usually defined and accomplished by specific procedures that are mapped to each process activity
Product Model	An object in ServiceNow that represents the hardware or software model of an asset
Purchase Requisition	
Requirement	a need or expectation that is stated, generally implied, or mandatory
Request	An incident ticket, change request from the change management process, or request item (RITM) from ServiceNow is used to ask for new assets, deployments, maintenance, returns, decommissioning, or disposal
Risk	The effect of uncertainty on an objective. An unknown condition or event that has a probability of affecting progress toward the achievement of an objective.
Roadmap	See Asset Management Plan
ServiceNow	A cloud application managed by the Information and Educational Technology unit used for asset management and related service management processes
Work Instruction	Detailed information needed to complete a procedural step in a procedure

Appendix B: ServiceNow Asset Data Fields

A list of fields in the ServiceNow asset module is listed in the table below.

Hardware General (May also be available in other modules)	
Asset tag	Alphanumeric information assigned by your organization to help track the asset.
Assigned	The date on which the asset was assigned to a user
Assigned to	The person using or primarily responsible for an asset. This field is visible when the asset state is In Use
Big Fix ID	The identifier assigned within the Big Fix system to the asset
Big Fix URL	The active link displayed on the asset form. Following the link takes the user to the details about the asset within the Big Fix system. Note: Access rights to Big Fix are required.
Class	Asset group, for example, base, hardware, license, or consumable.
Comments	A field with information about the asset: the field may contain information populated from Big Fix.
Company	Company or organization to which this asset belongs.
Configuration Item	When assets are created, an entry in the configuration management database is automatically added and is commonly referred to as a CI.
Department	The campus department where the asset belongs
Display Name	The name displayed for the asset which is a combination of the Asset Tag and Model
Installed	The date when the asset was installed
IP Address	The IP address which is assigned to a device by the network it is connected to and captured by the BigFix application.
Location	The current physical location of the asset
MAC Address	The unique machine address discovered by BigFix
Managed by	The person who maintains the asset. This can be different from the person in the Owned by field
Model	The specific product model of the asset
Model category	A categorical grouping of the assets based on the asset model
Owned by	The person who has financial responsibility for an asset. The value in this field can differ from the person in the Managed by field

Parent	Parent asset of the asset. For example, a monitor or peripheral can have a workstation as its parent asset. When a parent link is defined, the fields related to the assignment and state of the child assets become read-only and are populated based on the parent's assignment and state fields.
Quantity	<p>The number of items that represent the asset. An asset always has a quantity of one unless:</p> <ul style="list-style-type: none"> ▪ It is in the Consumable category. Quantity is unrestricted because consumables are tracked in groups. ▪ It is pre-allocated. Quantity is unrestricted when Model category and Model are defined, and Substate is set to Pre-allocated. ▪ It has no model and no model category.
Reserved for	The person for whom an asset is ordered. This field is visible when the asset state is On order .
Serial number	A sequence number assigned to an asset, usually with other assets of the same type, by a manufacturer
State	The current status of an asset in ServiceNow
Stockroom	A current room or location where an asset is physically located pending its deployment
Substate	Current Substate of the asset. The available sub-state settings depend on the State selected. For example, the Retired state contains the Substate options Disposed , Sold , Donated , and Vendor credit .

Financial section (*available for all asset types*)

Acquisition method	<p>The process or procedure used to acquire assets.</p> <p>Base system choices are Purchase, Lease, Rental, and Loan. This field is available starting with the Calgary release.</p> <p>For assets automatically created from purchase orders in procurement, the default value is Purchase.</p>
Cost	A number that represents the price of an asset. Cost includes the price paid, taxes, delivery, warranties, storage, and appropriate software additions installed before deploying the asset. The field should not be used to calculate the cost of operating and servicing the asset when deployed.
Cost center	Group is financially responsible for the asset.
GL account	General ledger account number with which the asset is associated.
Invoice number	Invoice under which the asset was billed.
Opened	The date on which the requested item record was opened. The system automatically populates the field when a request line is specified.

Order received	The date on which the asset was received from a manufacturer
Ordered	The date on the purchase order was approved and submitted for fulfillment.
PO number	A unique number issued by a purchasing application to uniquely identify and track purchases
Purchase order line	A number assigned to an item that is purchased and bundled with other items in on purchase order
Purchased	The date the asset was purchased
Receiving line	Receiving slip line identifying the asset. This field is available when procurement is activated.
Request line	Requested item to which the asset is linked.
Vendor	The seller of an asset. The vendor may be different from the manufacturer. For assets automatically created from purchase orders in procurement, the default value of the Vendor field is the vendor specified on the purchase order.

Disposal section

Beneficiary	The organization or individual who receives a discounted or zero-cost asset when the asset is retired.
Disposal reason	Text explaining why the asset is being retired.
Resale price	The value of the asset when it is retired and offered for purchase. For example, if the asset is donated, the value is claimed when reporting taxes.
Retired date	The actual date on which the asset was retired.
Scheduled retirement	The scheduled date on which the asset is planned for retirement.

Depreciation section (available for hardware assets)

Covered by Fixed Asset	List of all fixed assets than contain the asset which can be associated with a computer asset.
Depreciation	The method that is used for tax purposes to depreciate assets over time. ServiceNow system choices are Declining Balance and Straight Line.
Depreciation effective date	The date on which the specified depreciation method should begin.
Residual date	[Read-only] Number of days that have passed since the Depreciation effective date.
Residual value	[Read-only] Value in the Cost field with the depreciation method applied.

Salvage value	The estimated value of an asset at the end of its useful life This value must be less than or equal to the asset's cost.
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Entitlements section (available for hardware assets via Software Licensing)

Hardware Entitlements	The software license entitlements associated with the physical asset
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Lease contract	The name of the lease agreement that applies to the asset
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Support group	The group that is managing a contract covering the asset
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Supported by	The person that is managing the contract that covers the asset.
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User Entitlements	User licenses allowed by a contract and associated with the asset.
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Warranty expiration	The expiration date of the asset's warranty
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Appendix C: IS-3 Data Classification Fields

The fields required to classify IT assets to comply with the IS-3 standard are detailed in the following table. The fields and values are recorded in the CMDB and related to the hardware asset.

The fields are accessible from the Hardware Asset form as well as in the Configuration Class Manager application.

FIELD	CHOICES
Availability Level	<ul style="list-style-type: none"> - A4 - High - A4 - Moderate - A2 - Low - A1 - Minimal
Protection Level	<ul style="list-style-type: none"> • P4 - High • P3 - Moderate • P2 - Low • P1 - Minimal
Data Types	<ul style="list-style-type: none"> - Building access systems (P4) - Types of Federal data (PreCUI) like HIPPA data (P4) - Code signing certificates or keys (P4) - Controlled Unclassified Information (CUI) (P4) - Covered Technical Information (CT) and Covered Defense Information DFARS 253.304-7012 (P4) - Credit card cardholder information (P4) - Disability information or other medical information (P4) - Export Administration Regulations, International Traffic in Arms Regulations, 10 CFR Pt 810 (P4) - Financial aid information, student loans (P4) - Financial accounting, payroll information (P4) - Human subject research data with individual identifiers (P4) - Individually identifiable genetic information (P4) - Information with contractual requirements for P\$-level protection (P4) - Passwords, PINs, and passphrases or other authentication secrets (P4) - Personal Information (California Code) and/or other Personally Identifiable Information (PII) (P4) - Private encryption keys (P4) - Protected Health Information (PHI) / patient records. (P4) - Research information classified as Protection Level 4 (P4) - Sensitive Identifiable Human Subject Research data (P4) - Social Security Numbers – subset of PII (P3) - Animal research protocols (P3) - Attorney-Client Privileged Information (P3) - Building entry records from automated key card systems (P3) - Certain types of federal data (Pre-CUI) (P3) - Export Controlled Research (ITAR, EAR) (P3) - IT security information, exception requests, and system security plans (P3) - Personally identifiable information (PII) and Personal Data (P3) - Research information is classified as Protection Level # (P3) by an Institutional Review Board (IRB) (P3) - Security camera recordings, body worn video (P3) - Student special services records (P3) - UC Personnel records (P3) - Video recordings (P3) - Building plans and information about the university physical plant (P2) - Calendar information that does not contain P3 or P4 information (P2) - De-identified patient information (with negligible re-identification risk) (P2) - Exams (question and answers) (P2) - Meeting notes that do not contain P3 or P4 information (P2) - Patient applications and work papers, drafts of research papers (P2) - Research using publicly available data (P2) - Routine business records and email that does not contain P3 or P\$ information (P2) - UC directory (faculty, staff, and students who have not requested a FERPA block) (P2)

- | | |
|--|---|
| | - Unpublished research work and intellectual property not classified as P3 or P\$ (P2) |
| | - Course catalogs (P1) |
| | - Hours of operation (P1) |
| | - Parking regulations (P1) |
| | - Press releases (P1) |
| | - Public event calendars (P1) |
| | - Public-facing websites with Institutional Information intended for unrestricted access (P1) |
| | - Public research (P1) |
| | - Other (specify in comments below) |

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Appendix D: BigFix Data Import Handling

BigFix data imported into ServiceNow is handled as follows:

Import Record Attributes	How ServiceNow handles the asset record
<p>The BigFix record matches an existing BigFix id or serial number in and department in ServiceNow.</p> <p>Also, the state is:</p> <ul style="list-style-type: none"> • In use 	Update the record.
<p>The BigFix record matches an existing BigFix ID, serial number, and department in ServiceNow.</p> <p>Also, the state is one of:</p> <ul style="list-style-type: none"> • On order • In stock • In transit • In maintenance • Missing 	Update the record, but do not update the State field.
<p>The BigFix record matches an existing BigFix ID, serial number, and department in ServiceNow.</p> <p>Also, the state is:</p> <ul style="list-style-type: none"> • Retired 	Do not update the record.
<p>The BigFix record <i>does not match</i> the ServiceNow department but matches the BigFix id or serial number.</p> <p>Also, the state is:</p> <ul style="list-style-type: none"> • In use 	Update the record, including the Department field.
<p>The record <i>does not match</i> the asset record's department but matches the BigFix id or serial number, state=on order, in stock, in transit, in maintenance, retired, missing-</p>	Update the record, including the Department field. Do not update the State field (this state value depends on the Asset Analyst and Asset Management procedures to update the State field properly.)
<p>The BigFix record does not match any asset record's department, BigFix id, or Serial Number, and Serial Number is not blank. - create new records, including updating the support group,</p>	Create a new record, including the Support Group field. Set the State field to <i>In Use</i> .
<p>A BigFix record exists but does not have a Serial Number in the BigFix import data or ServiceNow</p>	Do not import the record. The serial number is a required field.

Appendix E: Asset – CMDB Field Mapping

The table below shows the fields mapped between ServiceNow and the CMDB. Fields between the Asset and CMDB module are automatically updated when data are entered or changed.

Asset field	Configuration Item field
asset_tag	asset_tag
assigned	assigned
assigned_to	assigned_to
checked_in	checked_in
checked_out	checked_out
company	company
cost_center	cost_center
delivery_date	delivery_date
department	department
due	due
due_in	due_in
gl_account	gl_account
install_date	install_date
invoice_number	invoice_number
justification	justification
lease_id	lease_id
location	location
managed_by	managed_by
model	model_id
order_date	order_date
owned_by	owned_by
po_number	po_number
purchase_date	purchase_date
serial_number	serial_number
supported_by	supported_by
support_group	support_group
sys_domain	sys_domain
u_ip_address	ip_address
vendor	vendor
warranty_expiration	warranty_expiration