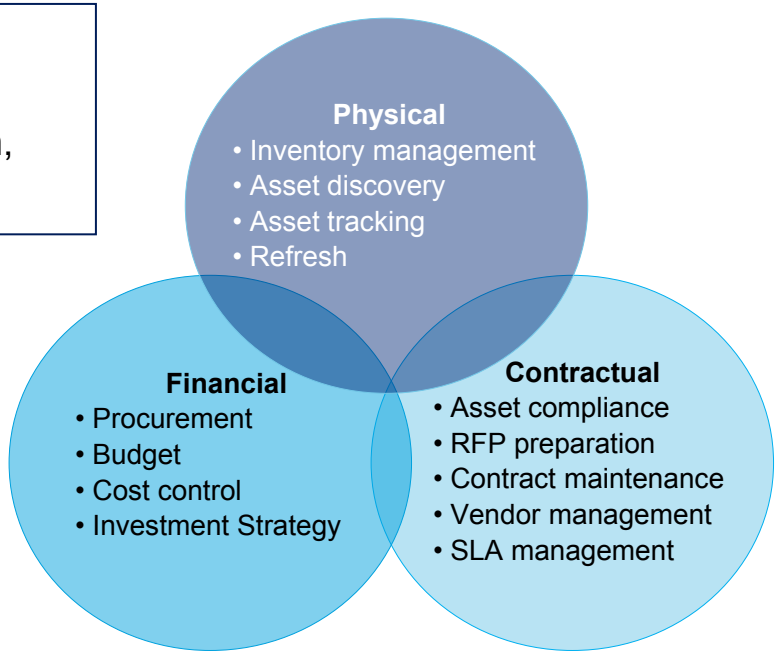
Asset management guidelines

IT asset management (ITAM) overview

Objective	Provide a **single, integrated view of agency assets** in order to allow agencies to identify the asset location and assess the potential data risk if an asset is reported as compromised or lost.
ITAM Defined	Information Technology Infrastructure Library (ITIL) describes IT Asset Management (ITAM) as "*all of the infrastructure and processes necessary for the effective management, control and protection of the hardware & software IT assets within an organization, throughout all stages of their lifecycle.*"
Scope	**Physical:** Deals with the physical characteristics of hardware & software in support of planning, deployment, operation, support and service; installation/use data.



Value of ITAM

Monitoring and Detection

- A faster response time for identifying and locating assets with sensitive data that have been compromised

Compliance Audit

- License compliance audits by vendors are increasing, making it important to minimize the financial penalties associated with the oversubscription of licenses

Standardization

- Standardized methodology for collecting and reporting on software and hardware assets

Limit Risk

- Identify the number assets that contain sensitive data and validate that the appropriate security controls are in-place

Cost Savings

- Reduces duplicate asset purchases by agency departments, and avoids needless overpayment of license fees

Security

- Understand what assets are in use and what rogue devices could potentially introduce security risks to the organization

Goal:
Deploy an evolving asset inventory that will enable agencies to continually improve their informed decision-making, and risk mitigation capabilities.

Where to start

Key Accomplishment	Develop an approach for collecting and maintaining the agency's IT asset inventory and data

Planning

Identify where IT assets are located

- Establish an IT asset management team
- Identify key stakeholders and asset repositories
- Define the ITAM scope
- Define asset management standards and data attributes
- Establish a centralized, single source asset repository for the collection of IT assets
- Establish access controls for the asset repository
- Define performance metrics, set targets and monitor progress

Data Collection

Develop a process to collect IT assets

- Develop data collection methodology and process to expand the SCEIS asset inventory
- Refine the asset management standards to include additional data attributes
- Normalize data as it is entered into the asset repository

Analysis

Analyze the IT asset inventory

- Develop an asset management decision framework to assist in making clear investment choices in IT assets

Ongoing IT Asset Management

- Define an IT asset management strategy and refresh period
- Automate the centralized, single source of truth for IT assets
- Perform internal compliance and enterprise architecture reviews
- Monitor hardware asset changes
- Provide IT asset management training for employees

Please note that the following process is a suggested approach to asset management and may differ agency from agency

Phase 1: Define the key components of ITAM

Step 1: Resources and scoping

Identify roles and responsibilities

- Establish project management structure
- Identify key contacts
- Conduct scoping meetings with key asset owners
- Gather an asset inventory list from the department that handles purchasing or deployment of IT assets (i.e. procurement department or help desk)
- Develop understanding of current IT environment and existing inventory reports
- Define an authoritative data source for IT assets in a structured and manageable manner

Step 2: Standardization

Define asset categories and attributes

- Establish an asset repository for physical information for each IT asset
- Establish standard asset category guidelines (e.g., servers, mobile devices)
- Conduct workshops to determine the current ITAM situation for each asset category (e.g. software, infrastructure, desktop, telecom, and telephony)
- Standardize the naming convention for each asset category and asset class.

Step 3: Metrics

Establish asset management metrics

- Develop metrics to measure and demonstrate tangible benefits/results
  - Percentage of assets that contain sensitive information
  - Percentage of laptops under 3, 4, 5 years old
  - Percentage of assets with asset owners from x department
  - Percentage of assets discovered not in the State procurement system
  - Percentage of duplicate assets
  - Percentage of unknown assets

Key Outputs

- Key points of contact
- Meeting schedule
- Asset management scope

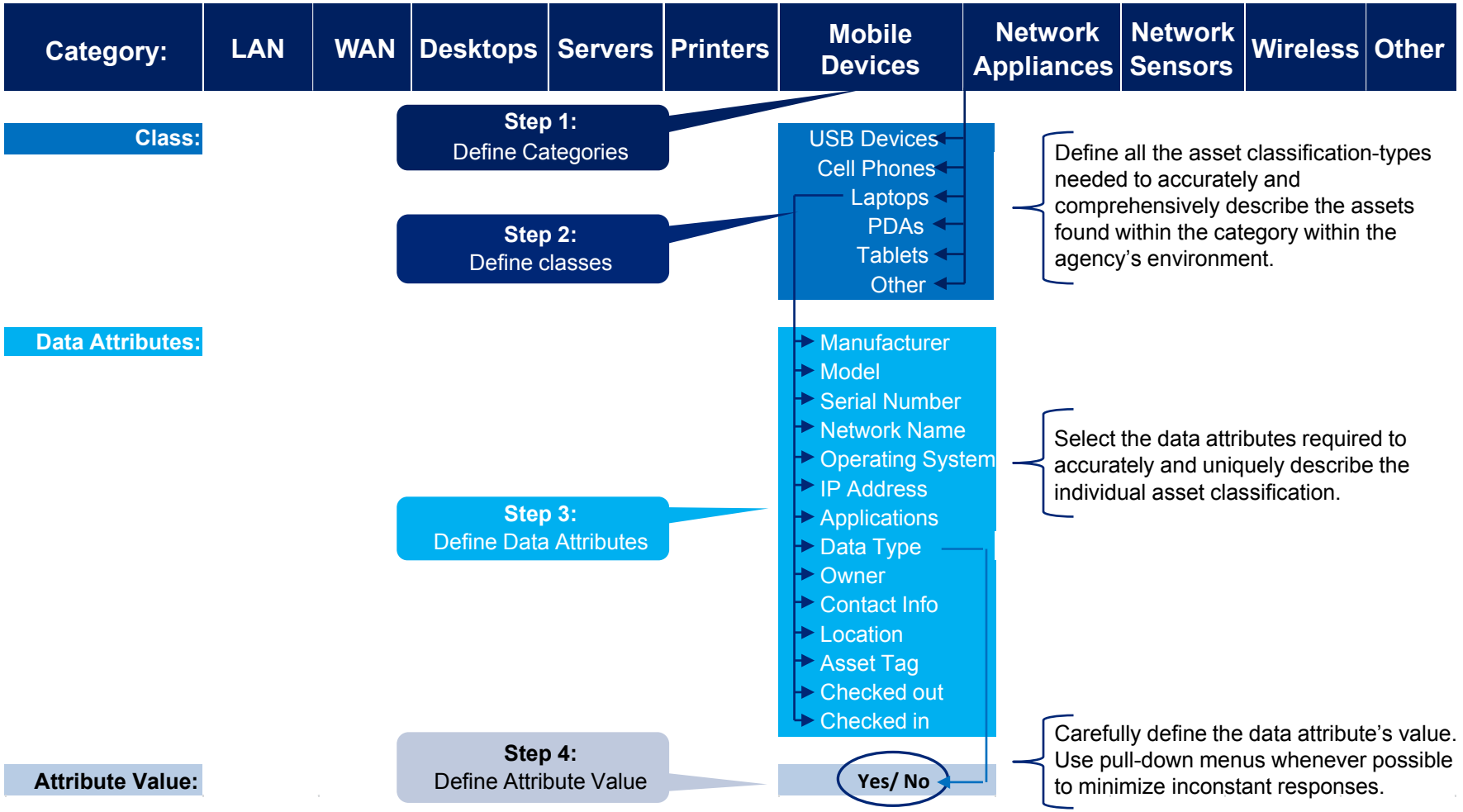
- Centralized asset repository
- Standardized asset build guidelines

- Asset management metrics

Phase 1: Data standardization template

Asset Inventory Template

Use an MS-Excel template for the manual collection of asset data if no automated capability exists. Create an MS-Excel workbook and define individual worksheets for each asset category (e.g., Network, Desktop, Servers). If necessary, combine multiple data collection spreadsheets into one master spreadsheet that will represent the asset inventory.



Phase 2: Develop a process to collect IT assets

Step 4: Data gathering

Perform data collection

- All processes from asset data collection through final report generation/ distribution should be detailed and repeatable.
- Limit the initial asset management phase to testing processes (one asset category and asset type):
  - Use asset data that is “well documented "so that the entire data collection, rationalization and reporting process can be verified for accuracy and inconsistencies eliminated
  - Increase the asset data category collection incrementally through each iteration

Step 5: Refine and normalize

Complete data rationalization to eliminate inconsistencies

- Improve sustainability, availability, and quality of asset information
- Normalize the collected asset data if multiple asset data sources are used
- Perform a data quality analysis to verify that:
  - Asset data collected is accurate and complete
  - Reports accurately reflect the asset data counts and metadata

Key Outputs

- Asset collection plan
- Normalization and data rationalization procedures
- Quality analysis asset management procedures

Phase 3: Analyze the IT asset inventory data

Step 6: Decision framework

Develop a framework to improve the management of assets

- Track and trend metrics for stakeholder review
  - Where are assets located?
  - How does the asset provide value?
  - How to derive (and demonstrate) maximum value from IT investments?
  - How to manage risks and security across the asset base?
  - What are the total number of laptops in my environment that contain sensitive data and have encryption?

Ongoing IT Asset Management

Integration

Identify opportunities to integrate automated asset inventory solutions

- Integration an automated IT asset management tool with other IT solutions (e.g., patch management, SIEM, helpdesk)

Sustainment

Define the data refresh cycle and ongoing asset management activities

- Provide ongoing capabilities to track and maintain an integrated IT asset inventory
- Define the data refresh cycle:
  - Industry typically refreshes asset data every 3 months
- Continually refresh the IT asset inventory data by updating the existing asset data and capturing new asset information

Key Outputs

- Asset management decision framework
- Metric dashboard for the business
- Automated asset management tool implementation plan
- Periodic baseline reports

Lessons learned

Why do ITAM Initiatives Fail?

- Lack of executive mandate to comply with ITAM processes
- Attempting to satisfy multiple constituents: fiscal versus operational interests
- Lack of authority or will to enforce asset management process and policy compliance
- Poor or nonexistent change management lead to a loss of ITAM database integrity
- Expecting a tool to solve a process problem
- Reports and data requirements poorly defined, often without data architect expertise
- Manual data entry, collection and integration processes are frequently incomplete, inaccurate and poor quality causing additional data reconciliation effort
- Lack of a mechanism for maintaining manually-entered data (e.g., metadata, warranty, contract)
- Little or no tracking and reporting of business benefits
- Lack of defined standards for server builds, configurations, and other infrastructure

Key Learning Points

- ITAM must be a solution to a business problem
- ITAM is more process and organization than technology
- Implement in a staged approach
- Metrics are needed to measure and demonstrate benefits/results
- Tangible results are highly dependent on management of integrated asset, contract, vendor and financial portfolios – data standards are a challenge
- Change management is critical to maintaining database integrity
- Automate ITAM data collection, normalization and rationalization processes as much as possible