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IT Asset Management & Automatic Identification Technology (AIT)

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Is this still happening?

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ITAM & AIT Discussion

- What are the IT Assets?

- What is IT Asset Management?

- Categorizing the IT Assets owned

- What is AIT, Automatic Identification Technology?

- How to track IT Assets

- Life Cycle/Refresh Cycle of IT Assets

- Total Asset Visibility

- RFID/AIT Benefits within the Risk Management Framework

What are IT Assets?

- Outside Plant Asset examples
  1. Manholes / Duct banks / Antenna Towers
  2. Cables: Fiber Optics / Coppers / Coax
  3. Commercial Circuits
  4. Radars / Antennas / Microwave Transmitters
  5. Wireless Access Points
  6. RFID Interrogators
  7. Access Control Readers

- Inside Plant Asset examples
  1. Wire Closets / Server Rooms / Data Centers
  2. Cables
  3. Switches/Routers/Appliances
  4. Servers
  5. Desktops/Laptops/Printers/Scanners
  6. Systems: Business Systems/Industrial Control Systems
  7. Operating Systems
  8. Software: Commercial/In House Built

What is IT Asset Management?

- IT Asset Management (ITAM) is an important business discipline that provides insight into a company's information infrastructure and enhances the ability to control the performance of IT assets.

- With ITAM, organizations leverage a combination of processes and technologies to gain a greater understanding of what assets exist, where these assets are located, and how they are being used. With these capabilities, ITAM enables organizations to effectively manage IT assets throughout their lifecycle and simplify related maintenance and administrative tasks.

Purpose/Benefits of IT Asset Management

- Through better management of IT assets, companies can ensure that each and every piece of hardware and software is fully utilized. As a result, they can:
  1. Enhance infrastructure performance
  2. Improve service levels to IT users
  3. Minimize related costs
  4. Eliminate regulatory and compliance risks
  5. Eliminate cyber security risk

- https://www.samanage.com/wp-content/ uploads /2014/09/SAManage-Business-Case-for-ITAM-WP.pdf

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Categorizing IT Assets

Item Type	Desc	Last Updated or Installed	Next Refresh & Funding	PMO or POC	Tracking Sys	Critical / Priority	Warranty Period	RASCI Chart	System ID
ISP	Switches	2017	2022-2025 $250K	IT	ITAM	2	10/1/2019-9/30/2022		DPAS
ISP	Desktop	2019	4 years/$75K	IT	ITAM	4	Break fix		DPAS
OSP	RFID Access Control Sys	2010	2020/$165K	IT	Own DB	6-10	Break Fix		DPAS

What is AIT?

- Definition:
  1. Nearly all of the **automatic identification technologies** consist of three principal components, which also comprise of the sequential steps in AIDC- 1 Data encoder. A code is a set of symbols or signals that usually represent alphanumeric characters.
  2. **A suite of tools for facilitating total asset visibility (TAV) source data capture and transfer. Automated identification technology (AIT) includes a variety of devices, such as bar codes, magnetic strips, optical memory cards, and radio frequency tags for marking or "tagging" individual items, multi-packs, equipment, air pallets, or containers, along with the hardware and software required to create the devices, read the information on them, and integrate that information with other movement information. AIT integration with logistic information systems is key to Total Asset Visibility.**

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Example of AIT

- Policy: Employees must have permission to access certain controlled rooms based job responsibilities. Each employee is issued a badge.
- RFID: Employees are issued RFID badges. RFID badge readers are located at the entrance to each controlled room, they are networked as part of a system to monitor accesses.
- System: An Access Control System, monitored by an office or individual on shift.
- Monitoring physical access: Report where badge was denied access, and number of times tried, or when badge reader is broken.
- Busines Rule: If the badge is tried 3 times at a single location which it doesn't have access or 3 separation location that it doesn't have access in a single day, the badge will be automatically revoked for all access.

What is Life Cycle Management

- As employed in information technology management, it is a process for administering system software, hardware, and support over the life of a system. In this process, the emphasis is on the introductory and installation stages because they constitute the largest components of the system cost and determine its utility.

  http://www.businessdictionary.com/definition/life-cycle-management.html

ITAM Life Cycle First Look

| Procurement | Provision (setup configuration) | Deploy/Integrate | Manage/Support | Retire/Disposition |

ITAM Life Cycle – A Closer Look

Phase 1	Requirements Validation against Base Line	Procurement (SOW, Contract)	Receiving Assets	Creating Assets & Labeling
Phase 2	Provision	Deploy/Integrate	Manage/Support	Inventory with AIT
Phase 3 - TAV	Missing Items	Unaccounted	Fraud/Waste Abuse/Vulnerabilities Investigation	Reporting
Phase 4	Deprovision	Return & Disintegrate	Retire & Disposition	Removing Inventory

Life Cycle Calendar

- Jun 2020 – Desktop/Laptops Refresh
- Feb 2022 – Switches Refresh
- Jul 2020 – MS Enterprise Agreement
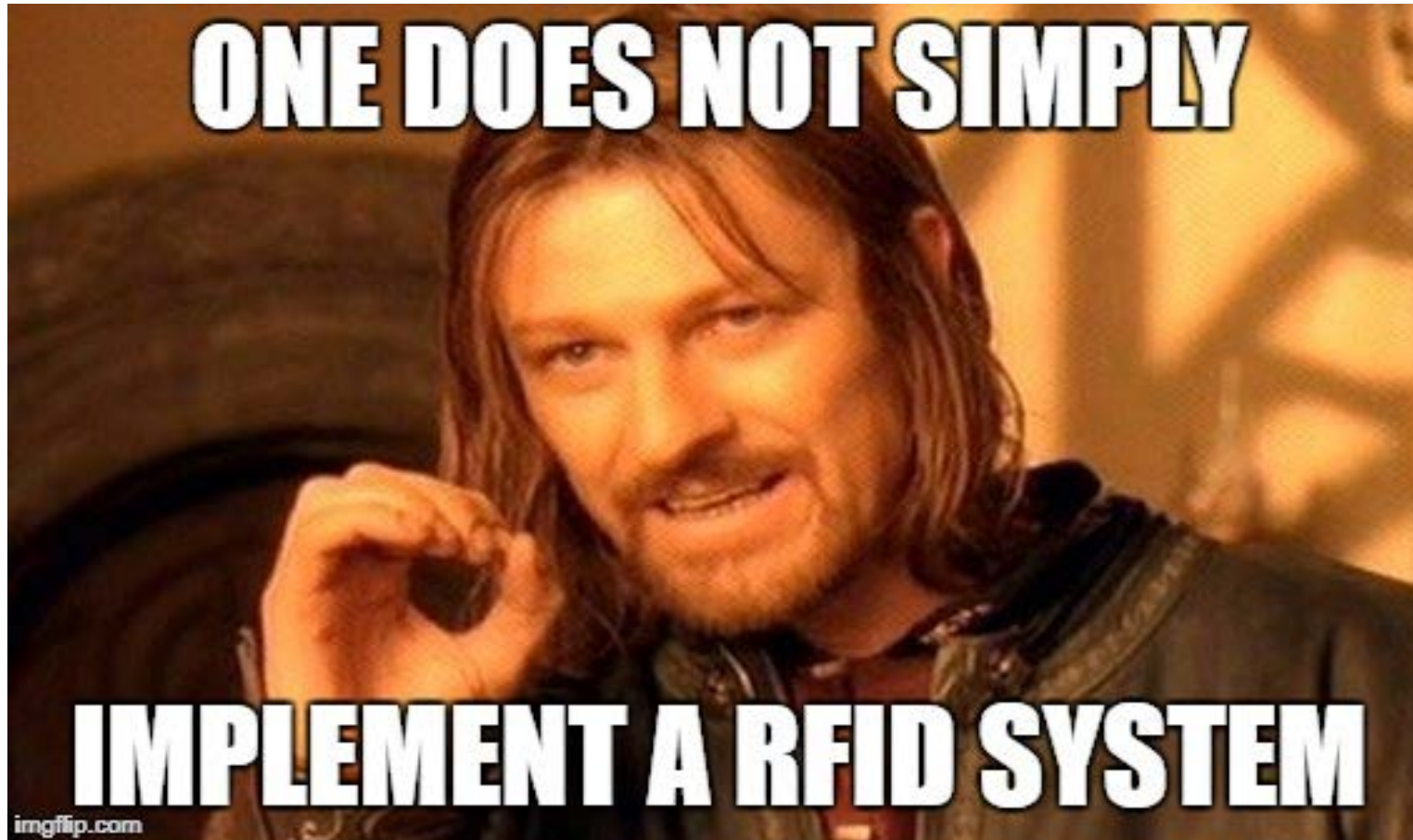
RASCI

- R = Who is Responsible
- A = Who is Accountable/Approval
- S = Supportive Role
- C = Consulted – Information or Capability Necessary to complete the Work
- Informed – Must be notified of results

RFID Access Control Refresh	Facility/Security	Review Board	IT /Consultant	Resources	Acquisition
Requirements	R	A	SC		
Analysis/Reporting	R	I	RS		
Approval		A		C	
Funding		A		A	
Contract		I			RA
Testing/Installation	RA	I	RA		SCI

Have the support or buy in?

Tracking all IT Assets?

- Is it necessary to track all type of assets and why?
- Is it necessary to track all assets in one system or not, and why?
- Is it necessary to provide a comprehensive report on all assets?
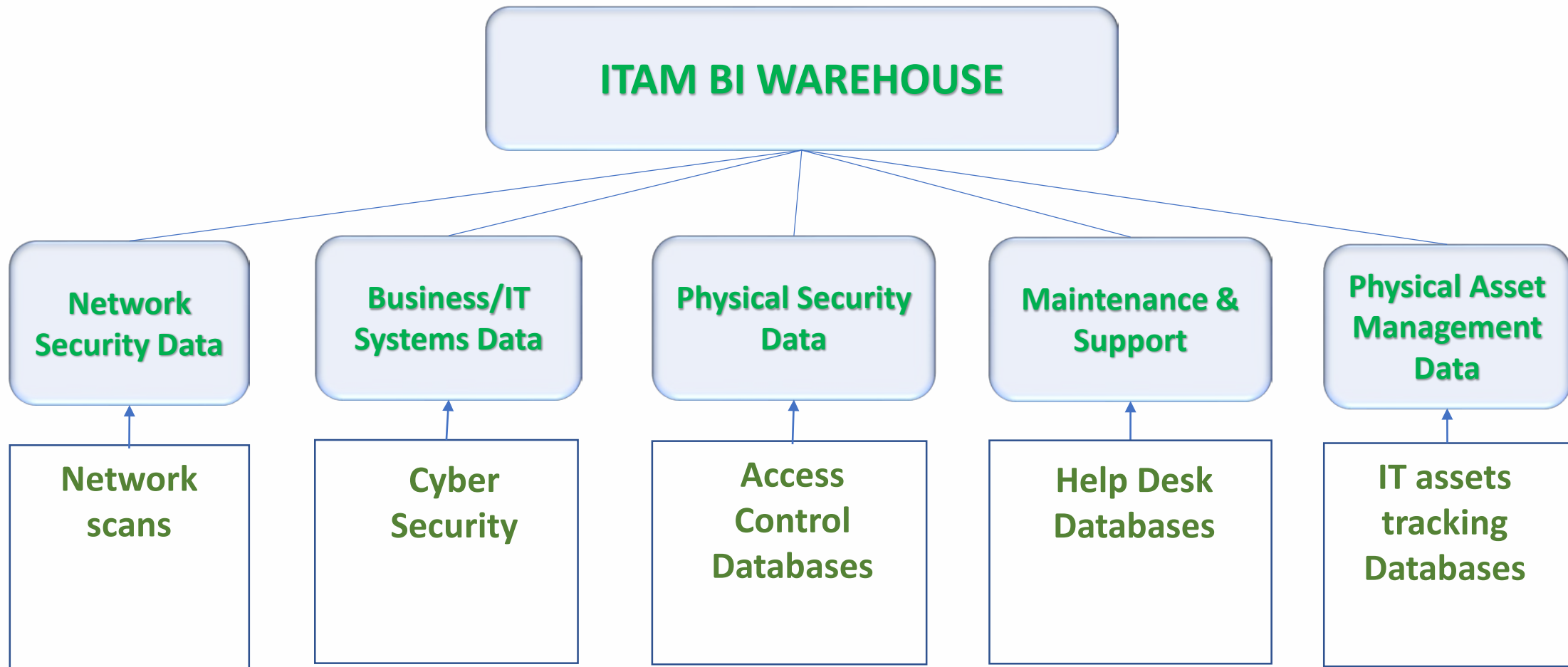- Is there a platform to combine data from different systems?

Suggestion on Accountability and AIT

- Include Vendor/Supply Chain into the ITAM process, (RFID Tagging, System Imaging, have access to transfer new equipment into queue)

- A Business Intelligence Data Warehouse to gather all IT Assets regardless of the system of records for executive dashboard, and ITAM Reporting.

- Automated interface for Alert Notification and Escalation

- Use the risk management framework to determine frequency Inventory and/or Random Sampling.

RFID as AIT Benefits

- IT Equipment RFID tagged by the vendor: Asset Delivery Alert

- Fixed Interrogators for tracking the movements of IT Assets on campus, as well as any other assets that are RFID Tagged.

- Mobile interrogators to look for hard to find items, drive by inventory.

- Quickly identify missing items.

- Reallocate the time to focus Total Asset Visibility Concept.

ITAM BI WAREHOUSE

Network Security Data	Business/IT Systems Data	Physical Security Data	Maintenance & Support	Physical Asset Management Data
Network scans	Cyber Security	Access Control Databases	Help Desk Databases	IT assets tracking Databases

Effective ITAM Solution Characteristics

- Complement existing asset management, security, and network systems

- Provide application programming interfaces to communicate with other security devices and systems such as firewalls and intrusion detection and identity and access management systems

- Know and control which assets, both virtual and physical, are connected to the enterprise network

- Automatically detect and alert when unauthorized devices attempt to access the network, also known as asset discovery

- Enable administrators to define and control the hardware and software that can be connected to the corporate environment

- Enforce software restriction policies relating to what software is allowed to run in the corporate environment

- Record and track attributes of assets

- Audit and monitor changes in an asset's state and connection

- Integrate with log analysis tools to collect and store audited information

Benefits of AIT

1. Simplified process for establishing new assets in the system of record.

2. Identify all assets within defined areas at all times or when required based on inventory frequency.

3. Enable faster responses to security alerts by revealing the location, configuration, and owner of a device.

4. Increase cybersecurity resilience: you can focus attention on the most valuable assets.

5. Provide detailed system information to auditors.

6. Determine how many software licenses are actually used in relation to how many have been paid for.

Benefits of AIT cont'd

7. Reduce help desk response times: staff will know what is installed and the latest pertinent errors and alerts

8. Reduce the attack surface of each device by ensuring that software is correctly patched

9. Identify network assets that are not in the inventory.

10. Identify network assets that are not on the network.

11. Valuable statistics and big picture assessments are available when data from multiple systems are joined in a data warehouse.

How solid is your ITAM Program?

Questions & Answers

THANK YOU

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