



What is so difficult about reliable IT asset data?

Balram Pandey

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What is so difficult about reliable IT asset data?

Asset Management

Jim Schwab

Posted by @jim_schwab

CISO: How many windows hosts do we have?
 AV Guy: 7954
 Desktop Management: 6321
 EDR Team: 6722
 CMDB Team: 4043
 SEM Team: 9342

1:53 PM - 9/16/2018

516 Retweets 929 Likes

Because someone has to clean up this mess

➔


Attributes

Virtual hierarchy missing: 150
 Hosts missing cluster: 450
 CPU/Core count missing: 200
 Environment missing: 950
 Cost missing: 120

Software edition/version missing: 240

It is not difficult at all, just needs one "enabler" in place ... will find soon!

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This session provides well tested and pragmatic approach to achieve high data quality

This session is about ...


- ✓ Simplifying data quality for ITAM
- ✓ Identifying what is critical data
- ✓ Identifying triggers that dilute (or clean) the data
- ✓ Fixing root cause of data quality issues
- ✓ Sustaining data quality

What is data quality?

- ✓ **Completeness**
 - Asset record exists
 - Required attributes are populated
- ✓ **Validity**
 - Attributes have valid data, e.g. IP address is within a range
- ✓ **Accuracy**
 - Attribute data is accurate
- ✓ **Timely or Currency**
 - Asset data matches with reality
- ✓ **Consistency**
 - Data is same across all repositories or reports

This session is not about pie in the sky!

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But first, my short introduction

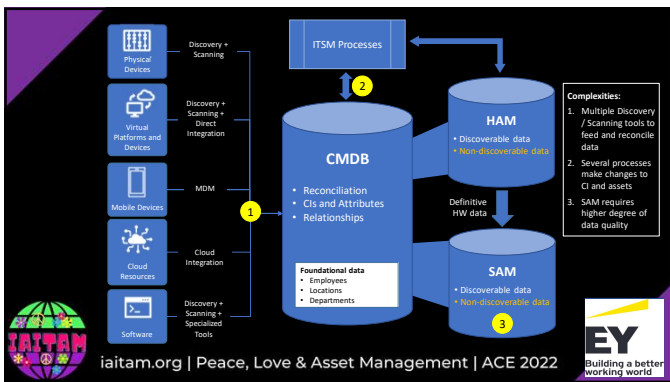
- ✓ Technology Strategy Consultant @ EY
- ✓ 25+ years of IT industry experience
- ✓ Local and global roles
- ✓ Practitioner of multiple industry best practices
- ✓ Pragmatic thought leader!

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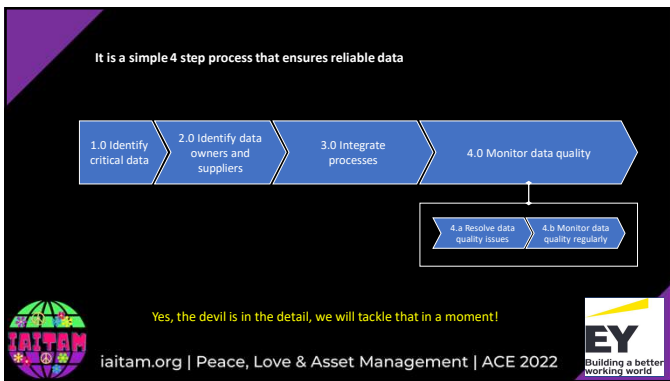
Reliable, current and consistent asset data establishes ITAM's credibility!

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1.0 Identify critical data

Determine asset types and their critical data attributes based on your immediate goal

Asset Types: Product Identification, Product Financials, Environment, Product Location, Product Specification, Ownership

Critical Attributes

Avoid being exhaustive or perfect, narrow down to minimum!

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2.0 Identify data suppliers

Typical data owners and suppliers are those who provide related services

VP Hosting /Cloud: Servers (Physical, Virtual)

VP End-User Service: End-user devices

VP Networking: Network devices

VP Applications: Enterprise Applications

Make sure that data owners agree to:

- Own the data, that means they are accountable for the quality of their asset data

And data suppliers agree to:

- Participate in data governance meetings, fix any gaps, process or tool related, and provide quality data to ITAM

Data owners and suppliers must be individual's names and not team names

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3.0 Integrate processes

Processes that dilute or clean asset data must be integrated with asset lifecycle management (LCM) process

Asset LCM Process: Purchase Order, Change Mgmt, Request Fulfillment, Incident Mgmt, Configuration Mgmt, Catalog Mgmt

Asset BOR ↔ CMDB

CMDB: Discovery, Virtual Platform, Cloud Platform, Cloud Deployment

Change Mgmt

Data quality controls must be implemented in the triggering process!

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A simple but truthful dashboard goes a long way

Asset	Inventory		Cost		Environment		Location
	Count	Completeness	Amount	Completeness	Prod	Non-Prod	Completeness
Physical Servers	4800	92%	\$48M	20%	3000	1200	88%
Virtual Servers	30200	95%	Tricky	100%	20000	8000	92%
Network Devices	8500	91%	\$42M	95%	8500	n/a	100%
End-User Devices	75200	89%	\$112M	95%	75200	n/a	100%
Cloud VMs	12500	90%	Tricky	100%	1200	8000	74%

Step 1: Add validity and accuracy metrics

BOR vs other sources

Start with a simple dashboard and get reaction from data owners and suppliers!

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Software data quality dashboard shows number of installations missing critical data

Product Name	Installations	Missing Version	Missing Edition	Missing Options
Oracle Java	3200	100	500	NA
Oracle databases	2100	50	260	1200
Microsoft Windows Server OS	20000	1000	0	0
Redhat	8000	0	0	0
IBM WebSphere	250	50	0	0

Compare with second source

Use alternate source(s) to extract software data and compare against the BOR.

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Dashboard showing failures in integrated processes is also important

Activity Performed	Change Management	Request Management	Incident Management
Builo/Deploy Asset	25	150	NA
Decommission Asset	30	200	NA
Deploy Software	10	120	NA
Swap Asset	5	25	10
Remove Software	5	10	15

These numbers represent records failed to update asset BOR with required data.

To effectively integrate processes, each integrated process must:

1. Identify the activity performed
2. Identify the affected asset(s) or CI(s)
3. Have a control to stop the process if required asset/CI data is not provided

It takes time and effort to prepare this dashboard but there is a reward too!

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What is the most effective way to address data quality issues?

Assemble a dedicated SWAT team and run data cleanup blitz in weekly sprints and show improvement.

Rinse and repeat – run weekly sprints

To be successful, you must fix the root cause and not just clean the data!

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What's next?

Now that majority of data quality issues have been resolved and their root causes fixed, regular data quality governance should be able to maintain the quality

Monthly

Be consistent and resolute in finding data gaps and fixing their root causes!

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Well then, what's so difficult to maintain reliable and trustworthy asset data?

1. Getting senior executive buy-in
2. Getting service/data owner and supplier buy-in
3. Implementing controls in the processes that affect asset data
4. Automating process integrations and controls
5. Identifying root-cause of data quality issues
6. Fixing root-cause of data quality issues
7. Identifying critical attributes
8. Developing dashboards
9. Presenting improvements
10. Continual monitoring

The single most difficult task is #1

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Thank you for being here and participating in the conversation

Q & A

Have a great success in improving asset data quality and showcase ITAM value!

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