#### HAHTAM ACE

SINCE 2002

Building resilient infrastructures

ITAM and technical debt







#### **Agenda**

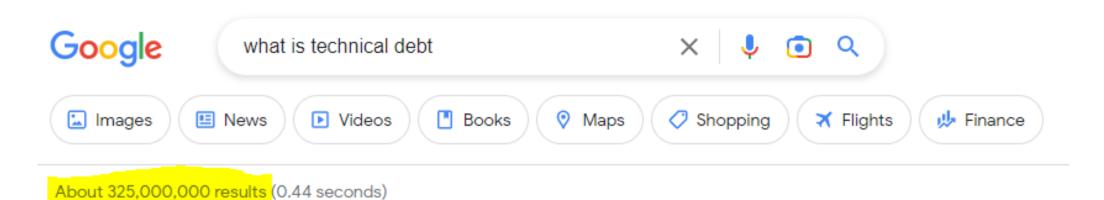
# What are we talking about today?

- Defining technical debt
- Identifying the contributing factors
- Understanding the problem
- 4 ITAM's role in reducing technical debt
- 5 Summary





#### What is Technical Debt?



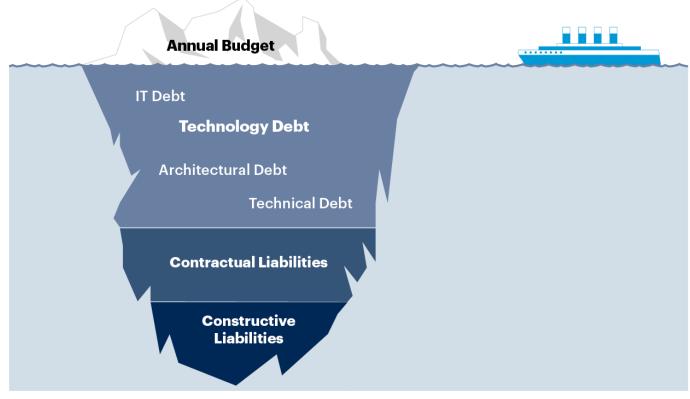




## What is Technical Debt?



#### **Hidden Technology Debt Below the Visible Budget**



Source: Gartner 727165 C



### The ITAM perspective

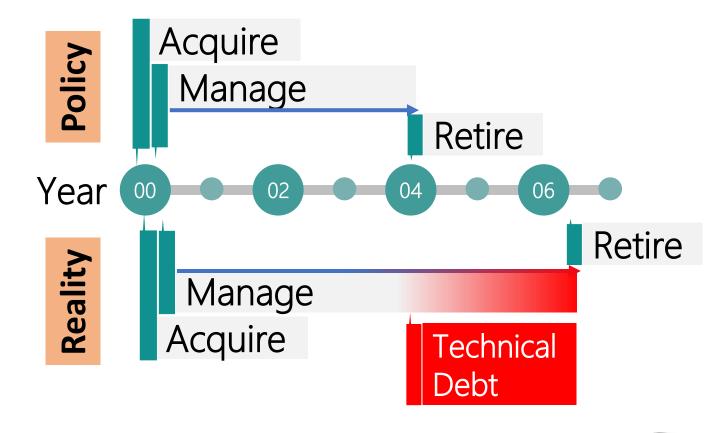
# What is Technical Debt?

Technical Debt refers to the cost of maintaining, operating inefficient or outdated IT infrastructure





## What is Technical Debt?







## What is Technical Debt?

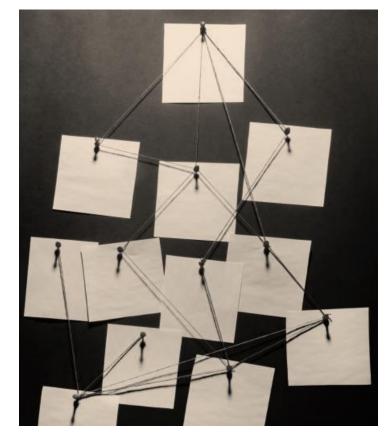
- 1 Normal / Expected
- <sup>2</sup> A business decision
- Something to be managed
- 4 Problematic if not managed well







#### Identifying the Contributing **Factors for Technical** Debt?







#### What Contributes to **Technical** Debt?

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- 1 Underinvestment
- Insufficient Maintenance
- Overreliance on legacy systems
- 4 Lack of documentation



#### Underinvestment

If IT spend is consistently below industry benchmarks, you might be accumulating Technical Debt







#### Underinvestment

#### **Questions to quantify Technical Debt**

- 1 What was your IT budget before the pandemic?
- What was your IT spend during the pandemic?
- 3 Has your IT spend adjusted to inflation?
- 4 Has your Asset Refresh policy been changed?





#### Insufficient Maintenanc

**A**storm will expose the health of your IT Infrastructure







### Insufficient Maintenanc

**Questions to quantify level of maintenance** 

In an Outage.....

- 1 There will not be a productivity loss
- The productivity loss will be minor
- The impact will be consequential
  - The impact will be catastrophic





## Overreliance on Legacy Systems

They don't build them like they used to......







### Lack of Documentation

What can you tell me about this asset? Why can't it be refreshed?







## Lack of Documentation

- We know what it is, but not how to upgrade it
- We know what it is, but not what dependencies exist
- We have no idea what it is, nor what will happen if it stops
  - We don't even know it exists





# Understanding the impacts of Technical Debt?







## Why is Technical Debt even

problem?

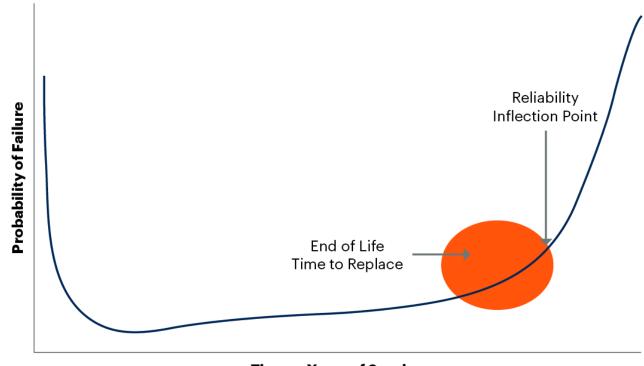
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- Increased Outages and Downtime
- 2 Decreased User Satisfaction
- Increased Security Risks
- 4 Integration and Compatibility Issues
- Increased Costs



# Increased Outages and Downtime

#### Life Cycle Based on Likelihood of Device Failure



Time — Years of Service

Source: Gartner (April 2018) 746332 C





# Increased Outages and Downtime

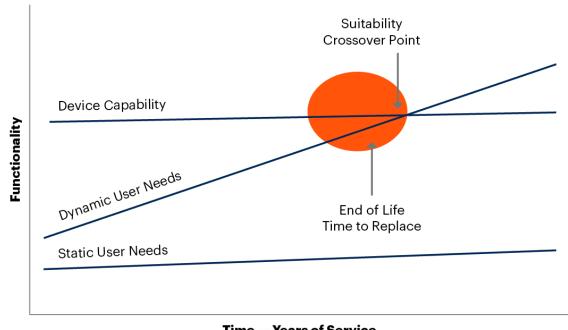
- 80% of all data centre outages result from servers
- Server failures rates increase over time to up to 18% at 7 years
- 79% of organizations experience unplanned downtime at least bi-monthly
- Planned downtime cost organizations an average of 830 minutes annually





#### Decreased User Satisfaction

#### Life Cycle Based on Suitability to Task



Time — Years of Service

Source: Gartner (April 2018) 746332 C







#### Increased Security Risk

Running unsupported software is like having a fence with a hole...
An open invitation for intrusion.







#### Increased Security Risk

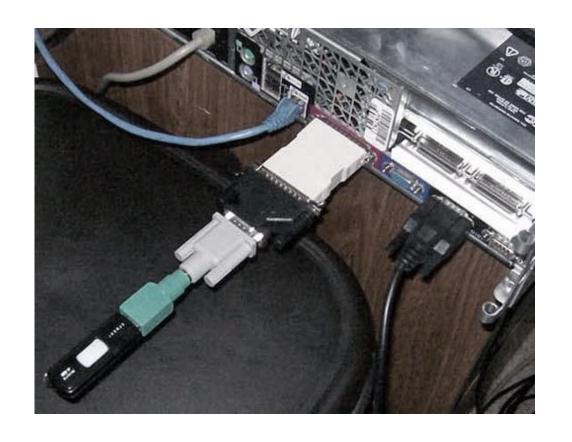
- Non-patchable attack surfaces will grow from less than 10% to more than 50% of the total exposure
- 83% of organizations have had more than one breach
- 60% of breach victims were breached due to an unpatched known vulnerability





## Integration and Compatibility Issues

Because we can, doesn't mean we should......



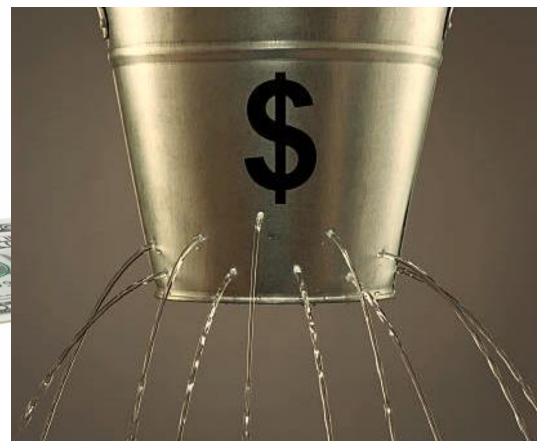




### **Increased Costs**

Driving on Technical Debt Boulevard can be expensive









### Increased Costs

- The average cost of a data breach in the US was \$9.44m in 2022
- 83% of organizations have had more than one breach
- The cost of IT downtime ranges from \$100,000 to \$540,000 per hour
- 47% of the cost of downtime relates to lost productivity











# What's ITAM's role in Technical Debt Management

- 1 Choosing your involvement level
- Identifying where it exists
- 3 Determining the impact in your org
- 4 Creating a plan to remediate
- 5 Taking action





## Choosing your Involvement Level







# Choosing your Involvement Level

- If it isn't Deploy, IMAC, or Retire... then it isn't my problem to manage
- I just want to do enough so no one points the finger at me when legacy outages occur
- I guess I could help support the business with some proactive support
  - I would like ITAM to be considered a driver for Tech Debt reduction and build our profile more





#### Finding Technical Debt

Creating Visibility Beyond Discovery







#### Finding Technical Debt

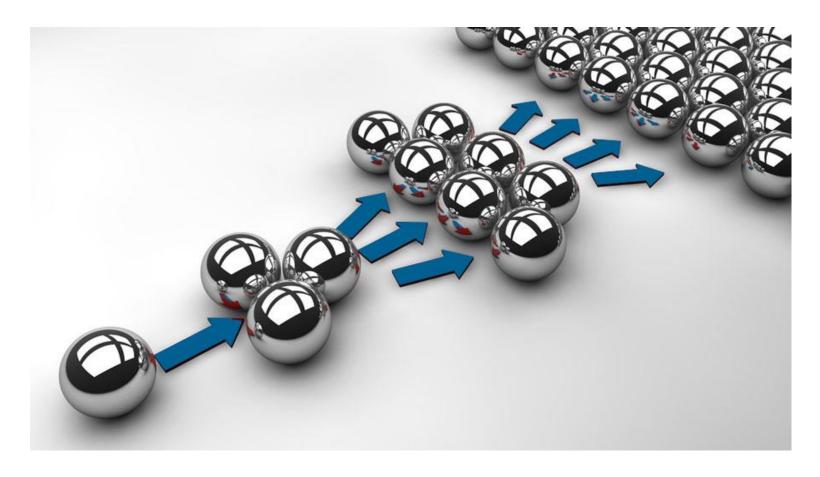
**Steps to identify Technical Debt** 



- Leverage existing tools to build visibility of your HW and SW estate
- Aggregate multiple data sets for complete visibility
- Normalize the data to simplify and add meaning to your estate
- Enrich the data with lifecycle data to create deeper insights
- Summarize your organizational HW and SW currency position to baseline Technical Debt



## **Evaluating the Impact**

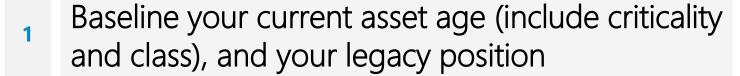






## **Evaluating the Impact**

Steps to Evaluate the Impact



- Baseline 3<sup>rd</sup> party costs associated with extended maintenance / support
- Identify 'legacy' assets with known vulnerabilities
- Benchmark legacy asset uptime and availability
- Benchmark time spent on the maintenance and support of legacy assets





### **Create**a Plan

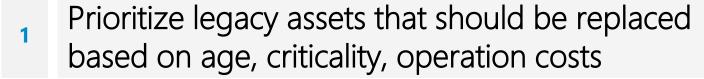
This is a team project...







### **Create**a Plan



- Create a roadmap that outlines your plan for replacing legacy assets
- 3 Research and identify replacement options
- Develop a migration strategy to migrate from legacy systems to modern solutions
- Create a team of appropriate stakeholders for the above (this will not succeed with just ITAM)





## Taking Action

**Every journey starts by taking the first step** 

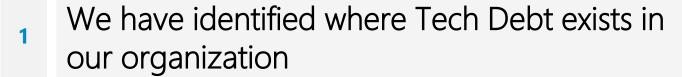






## Taking Action

Take advantage of the foundation you have just laid



- We have assed the impact of Tech Debt, and have baselined our current position
- We have determined the role we want to take in helping the company manage Tech Debt
- We have created a plan to manage, and reduce Tech Debt in our organization
- We have done all the hard work, <u>now we just</u> need to execute





# Summary and focus areas







#### **Summary**

## Recapping what we Learned?

- What is Technical Debt
- What Causes Technical Debt
- 3 Why is Technical Debt a Problem
- 4 Your role in Technical Debt Management











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#### Thank you!

Contact me for more insights on Raynet's Solutions for Technical Debt management



