Tame the Beast of IT Complexity: AI, ML, & Automation Are the Answer

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Agenda

1. Introduction to AI & ML
2. It starts with : CMDB
3. Incident/ Event Correlation
4. Change Management
5. Automated / Guided Response

Introduction

AI & Machine Learning

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AI: The Hype

- I want to buy some AI…
- You don’t “buy” AI
- AI took my job!
- AI helps us to repurpose
- I need AI to succeed
- Alignment to objectives
- I fear AI
- Rise of the machines?

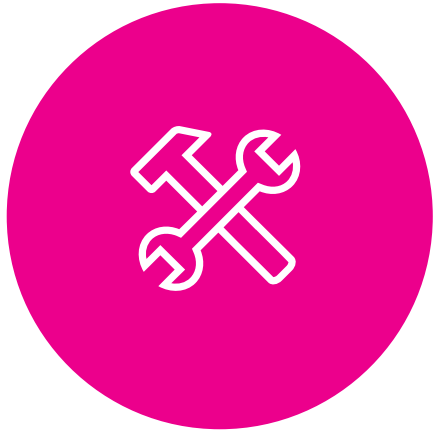
AI: Reality

Impacts to IT Operations

Machine Learning (ML),

Natural Language Processing (NLP),

Analytics



AI at its best when its augmentative

Time to value,

reductions in MTTI/ MTTR

Impact to CMDB

Arguably where the journey starts

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“Without an accurate CMDB its near impossible to correctly visualize correlated events and alarms.”

See Blog

CMDB

Getting it right!

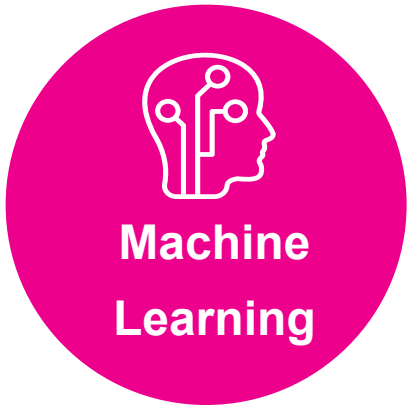
- Who has a single CMDB?

- Maturation timeline
  - Basic discovery populating CMDB
  - Key business services mapped
  - Manual risk assessment
  - Automated dependency mapping
  - Application level signatures

CMDB

Impacts

Dependency mapping



Application signatures

Correlation/ Visualization

Single Source of truth

Correlation

Incident / Event Correlation & Noise Reduction

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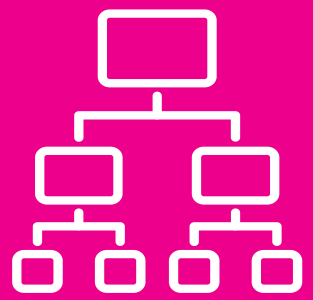
“78 percent of CIOs and senior IT leaders are already looking to AI to address complexity, and by 2019, 30 percent of IT service desks will utilize machine learning to free up support capacity”

Gartner , 2017

Correlation

Incident/ Event Correlation & Noise Reduction



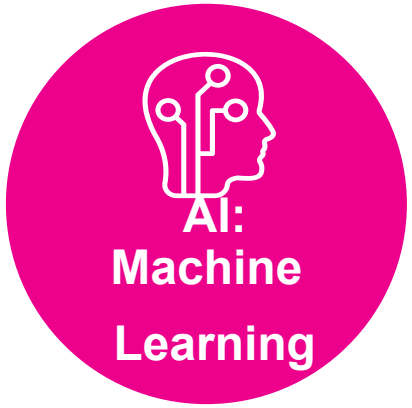
- Who's doing some level of Event Correlation using AI today?

- Maturation journey:
  - Event grouping – these are all the same things
  - Event clustering – these things typically happen together
  - Predictive Event management – if X happens, followed by Y, then Z will probably happen
  - Mapping/ Visualization – this happening on network device 1, will have impact on connectivity for Sever A and have an outage for application B

Correlation

Impacts

Noise reduction



Clustering

Predictive

Change Management

Automated impact analysis

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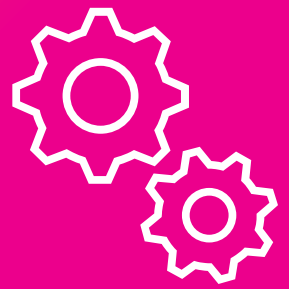
Change Management

Automated Impact Analysis



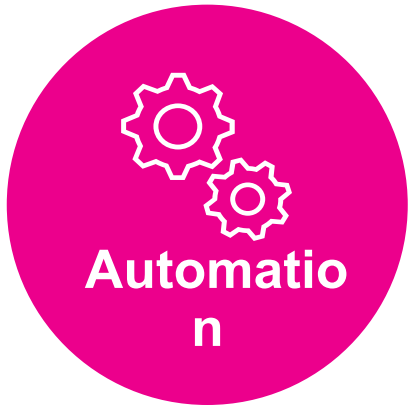
- Who always follows change requests process?

- Sometimes we just want to get things done…
  - Retrospective change at best, sometimes not record
  - If we follow the process, our MTTI/ MTTR will likely increase
  - Regulatory impact VS service Uptime

- I know what the problem is but when can I make the change?
  - What other CI's are impacted by this change?
  - Who's the business owner and how to notify them?
  - Is there a pre defined change window?
  - Impact analysis

Change Management

Impact



Enforces the process

Updates to disparate systems

Last time I did this it worked – de risk

Helps us to visualize situations

Automated Response

Path to self healing

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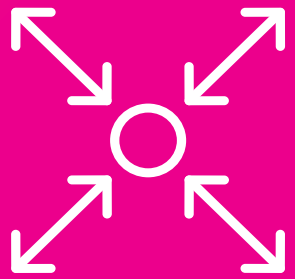
“…barrage of service alerts from multiple sources. Becomes very difficult to get a single view…multiple teams being dragged on to a conference call…”

Nick Mayes, PAC Blog

Automated Response

Path to Self-Healing IT



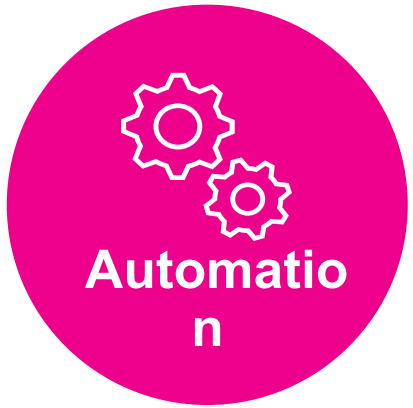
- Who's incorporating automation with their Splunk tools today?

- Path to success:
  - Automated the simple stuff – this is where lots of organizations start and finish
  - Guided/ Interactive procedures
  - Automated diagnostics
  - Adaptive Response
  - Self Healing

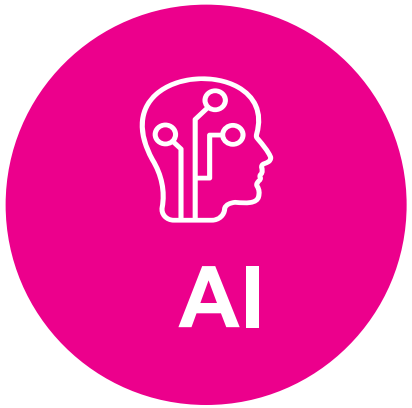
- Triggers:
  - Conversational AI/ Chat with end user
  - Request process in ITSM platform
  - Event management – Splunk toolsets
  - Predictive - AIOPS

Automated Response

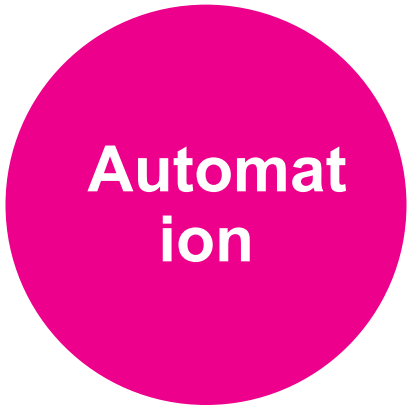
Impact



End to End and guided, moving toward adaptive



Conversational AI



Request Management

Root cause identification and KB / process mapping

Summary

Conclusions

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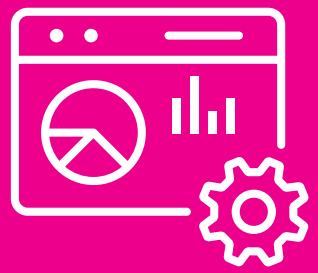
“AI and ML do not provide a silver bullet in any single aspect of a service desk implementation.”

Ari Stowe , CLEAR 19

Key Takeaways

Impact of AI and ML on IT Operations



1. Break down silos and drive an automation program

2. IT Operations
   - Discovery and CI Mapping
   - Correlate events and alarms with Visualization
   - Proactive incident avoidance
   - Automated detection and response
   - Stay compliant

3. AI and ML technology will fundamentally change how IT operates

Q&A

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Thank You!