The bridge to possible

How Cisco TAC solves your infrastructure and application problems faster using Machine Learning

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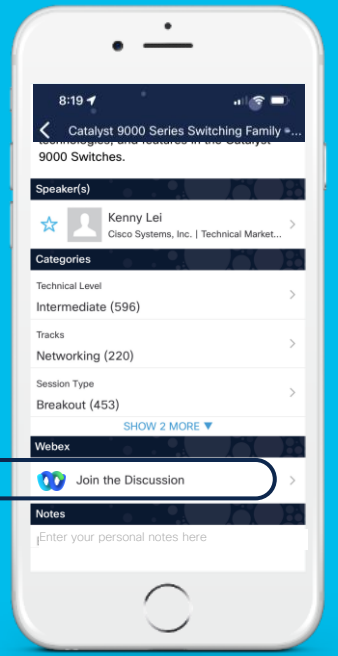


The Cisco TAC

- 191
  countries served
- 11,000+
  engineers
- 60,000+
  partners worldwide
- 2.2 million
  cases handled annually
- $18.5 billion+
  in spare parts inventory
- 11
  global CX centers

Goal—resolve and figure out root cause

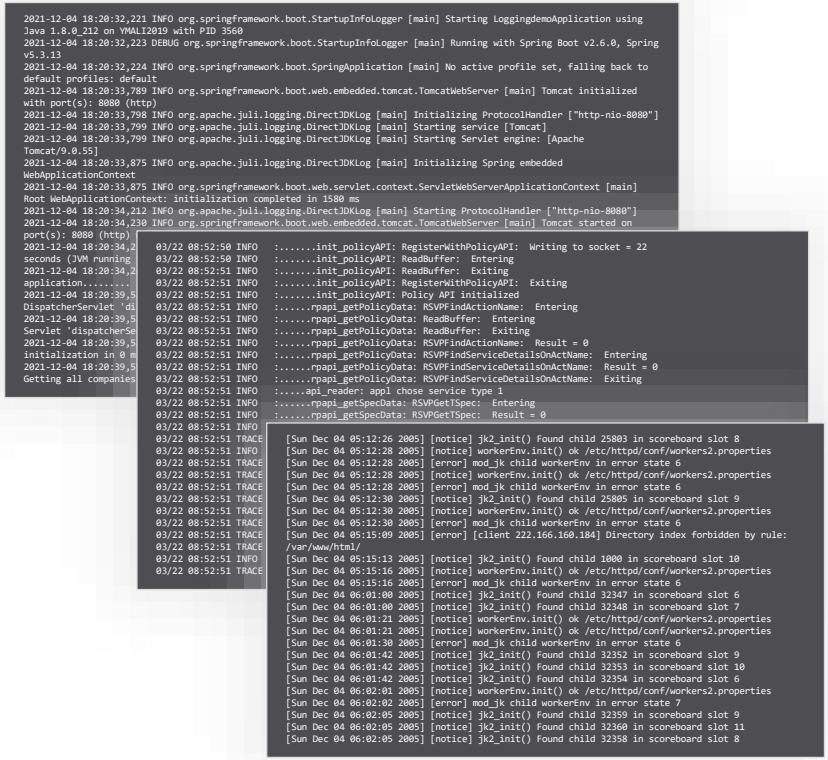
Majority of SRs (cases) solved in < 24 hours

But… Toughest cases require laborious log analysis

Thousands of hours spent each month

Hunting through logs is really hard

- Customer uploads log bundle
- Find/guess the right logs within bundle
- Start searching for errors or known key words (often symptoms)
- Hunt around for new/rare/unexpected log lines
- Leverage intuition and experience…
- Iterate until root cause is found

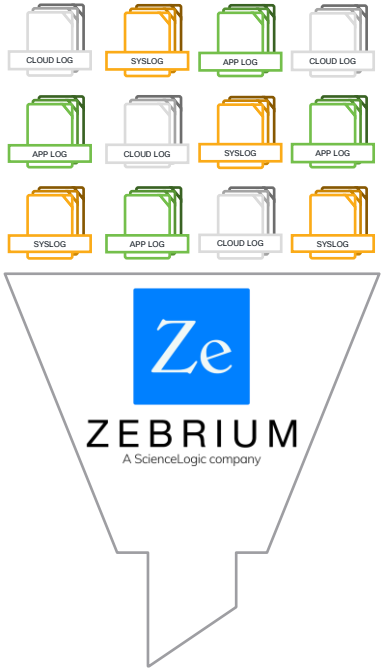


There has to be a better way!

ZEBRIUM

A ScienceLogic company

ScienceLogic Zebrium

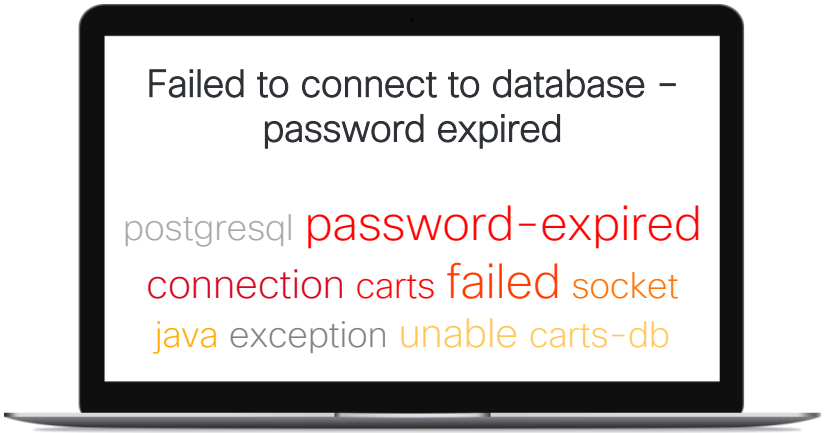


Logs go in

Root cause comes out!

Instead of this…

See root cause without hunting or digging through logs



Automated root cause analysis

Accuracy in < 24 hours

No rules or manual training

Man vs. Machine

Can ML analyze logs faster than human experts?

UCS

DNAC

4

Product lines

Webex Client

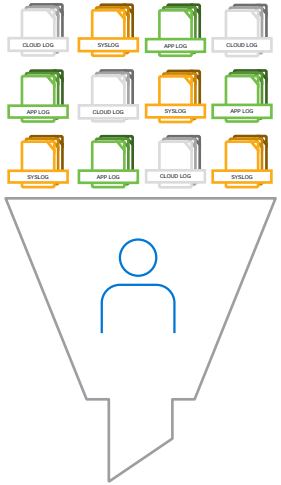
ISE

192

Complex customer cases

Man

Expert engineers

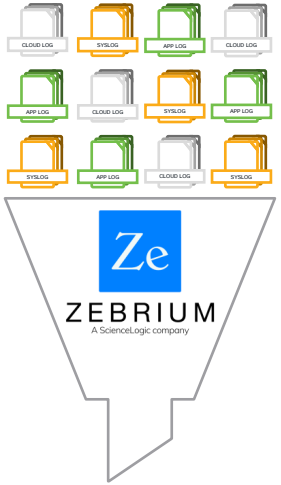


Many hours to days spent:

- Analyzing each log bundle
- Often escalating

Machine

ScienceLogic Zebrium



Minutes (automatic):

- No manual rules
- No pre-training

95.8% - Zebrium correctly found root cause

Some color from the Zebrium users

"Didn't just highlight the connection error but also the reason."

"Caught errors I would have normally missed among millions of logs and led me to the root cause."

"This is amazing. It wasn't an easy issue to troubleshoot, and it pointed us at exactly the right root cause."

Demo

How does it work?

LOG

LOG_1.... LOG_N
Log streams or files are sent to Zebrium in native format. No need for structuring or parsing rules.

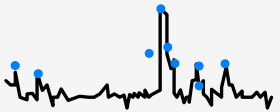
11652 2016-08-09 00:15:34.977532 INFO regmgr:axr_startsd:Mismatch corrected at coff 278095203957

Event Type		
	Mismatch corrected at coff	
	Pid	11652
	ttz	2016-08-09 00:15:34.977532
	Severity	INFO
	Module	regmgr
	Function	axr_startsd
	coff	278095203957

01 **Structuring and categorization**
Unsupervised machine learning automatically structures and categorizes log events.

Event_1..... .....
Event_2 ....
Event_N ....

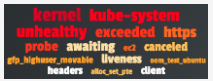
02 **Pattern learning**
The patterns are learnt for each type of log event.



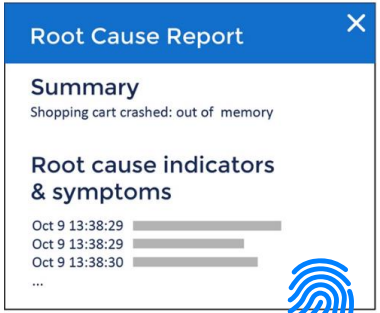
03 **Anomaly Detection**
Each new incoming event is scored based on how anomalous it is.

04 **Identification of correlated anomalies**
The ML looks for correlated clusters of anomalies across logs.

NLP summary and word cloud



05 **Summarization**
Relevant key words are extracted and GPT-3 is used to produce a plain language summary.



RCA fingerprinted for future occurrences

Interactive root cause report generated and sent as a "suggested alert"

Connects with existing tools and workflows

AIOps

APM and observability

Incident response and collaboration*

Works with logs from any infrastructure or application

*additional tools supported through ScienceLogic integration

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Logs go in, root cause comes out

- No training or rules
- Works with any logs
- Sign-up for a free trial: sciencelogic.com/request-a-free-trial

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