Triggering Alerts with xMatters and Achieving Automated Recovery Actions from ITSI

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ITSI Alert Framework

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Agenda

- What are Notable Event Alert Actions?
- Why do you need?
- How do you build them?
- Pitfalls & Gotchas

- xMatters Deep Dive
<Demo>

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But Management makes me forward events to <insert legacy manager here>
  • Sync back to OMI, Netcool/Omnibus, BPPM/Truesight, SCOM, …
But our incident police make us create incidents as well
  • Avoid having to swivel chair/manually open incidents in Service-Now, BMC/Remedy, …
But our notifications are managed in an alerting solution
  • You manage complex alerting/spoc/on call rules in xMatters, VictorOps, PagerDuty
But I want to apply automated remediation actions like service restarts
  • You have a run book solution and workflows that you want to automatically initiate in <insert your run book solution here>
Mod Alerts and Notable Events

- Notable Event Actions build on top of Mod Alerts
- Mod Alerts are best kept in custom apps
  - modular_alert_example/
    - metadata/
      - default.meta
    - default/
      - app.conf
        - alert_actions.conf
      - data/
        - ui/
          - alerts/
            - make_a_log_message.html
    - README/
      - alert_actions.conf.spec
    - appserver/
      - static/
        - applcon.png
    - bin/
      - modular_alert_example_app/
        - __init__.py
        - modular_alert.py
ITSI Notable Events Add On

- Configured via notable_event_actions.conf

- What does notable event actions add?
  - Disabled = 0
  - Enabling/Disabling Actions for ITSI
  - Is the Action bulk compatible?,
  - How often should it execute per group?
What Can You Do With The SDK?

- Get the event_id or any event field
  - Try that with your legacy Manager
- Get Configuration Setting
- CUD URL/Ticket Info
  - Add Knowledge Article/Instructions Link to Event or Event Group
  - Add link to Ticket or Notification/Outage Board/Externa App
- CRUD Comments
- RU Status
- CRUD Owner
- Log to _internal
Example – Trello Outage Board

https://github.com/mwiser/itsi-trello-board.conf

```python
import requests
import json

logg = logger.getLogger()
ed = {'result': [event_id]}
se = {'session_key': payload}
m = {'myboard': '4978c0fbd5db5908f3e618e'}
url = 'https://api.trello.com/1/lists/'+myboard+'/cards'
logg.info('Session Key: '+session_key+' event id:'+event_id)
t = {'result': title}
d = {'result': description}
m = {'result': description}
mykey = 'f1b83a54005a0a6d7e1b2c0199c3e8'
mytoken = '1ac1c8ac6950f0d666cf86f6b7c59fbb92c49412f55cf6942f5368d7ab05936'
json = {'descData': 'MyDescData', 'dueComplete': 'true', 'due': '2017-04-07T21:26:00.365Z', 'name': title, 'desc': description, 'key': mykey, 'mykey': mykey}
req = requests.post(url, json=json)
event = Event(session_key, logger)
event.create_comment(event_id, "Trello Message has been created")
```
Practical Use Cases

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Service Management
This is where the subtitle goes

► Service-Now
  • [https://splunkbase.splunk.com/app/1928/](https://splunkbase.splunk.com/app/1928/)
  • ~5k Downloads – one directional

► BMC-Remedy
  • [https://splunkbase.splunk.com/app/3087/](https://splunkbase.splunk.com/app/3087/)
  • ~ 600 Downloads – one directional

► Bi-Directional:
  • Field Developed Guide email: mwiser@splunk.com

► CMDB Enrichment Out of the box
  • Support Group
  • Location, Region, DC
  • Class of Service/Dependency

► CMDB Enrichment via DBConnect or input-lookups/Rest Calls

Incident Management
Event Management Integrations

- Common Capability across Every Event Management solution
  - SNMP Traps
- HP Openview/OMI
  - opcmsg – Make sure you open the OMI interface policy for the ITSI Server
- IBM Netcool
  - Omnibus Nco_postmsg or TEC – poste(is)msg or postzmsg
- BMC BPPM/Truesight
  - msend/mposter
- Microsoft SCOM
  - set-scomalert (Updates) & OMTestTool.msi
Run Book Automation Frameworks

- Common Across Most Run Book Solutions
  - Web Service Endpoints (Rest/Soap) and http post triggers
- Resolve Systems
  - https://splunkbase.splunk.com/app/3331/
- BMC Atrium Orchestrator
  - Rest/Soap/http
- HP Operations Orchestration
  - Rest/Soap
Pitfalls and Gotchas

▶ For Splunk Cloud customers
  • Data Transfer has to be encrypted
  • Alert Action has to go through certification process

▶ UI Based Backups
  • Splunk ITSI Backups (UI/kvstore2json) do back up the KV store
  • BACKUPS DO NOT BACKUP ALERT CONFIGURATION (file system backup)

▶ Including Splunk SDK for more advanced use cases
  • If you want to enrich the data after the fact – look up support groups for handoff or more robust ML – have email notifications outside of the standard template
As Martin Mentioned

The Value of ITSI data...but how do we leverage that value?
IT Is Challenged To Operate With More Agility And Velocity

Business Demands

Quality/Reliability/Uptime

Legacy tools / tech

Confidential and Proprietary
IT Organizations Have Been Taking Steps To Evolve
... by adopting new tools and processes
Barriers Still Exist That Prevent Agility

... due to lack of integration and automation
Add Disconnected Communication To The Equation

... and automation can become compromised

Are we having an outage?
When will I get my next status update?

Did my unit tests fail?
When am I on-call next?
Too much info!

This was not an issue on my box?
What is your monitor telling you?

What's the dial-in number?
Did you see my email?
Open a ticket?
Toolchains Allow IT To Align Tools And Activities And Are Required To Deliver Agility

Connected TOOLCHAIN should enable IT agility and faster service delivery

TOOLCHAiNS must automate hand-offs and address gaps between solutions
Enhance Your Toolchain Links With Xmatters Intelligent Communication
Features

ITSI value is extended with xMatters capabilities

Available Enterprise & Cloud

Dynamic Call Schedules

Intelligent Communications

Targeted Alerts & Notifications
  Voice, Push, SMS, Email, Fax, etc.

Automated Work Flow and Closed Loop

Mobile Push with Actions
So, What’s Possible?
Love your ITSI data? Share the LOVE

1. When Notable Events meet predetermined criteria, xMatters can automatically relay critical Splunk ITSI data to the correct people and systems - can also be manual

2. Create a service management ticket with Splunk ITSI insights

3. Invite people across multiple teams to a conference call with context from Splunk ITSI

4. Initiate a targeted chat room via Slack, HipChat or Hubot

5. Record chat room activity back into a service management ticket

6. Record assignee, severity, and status comments back to the Splunk Notable Events dashboard
“Live Demo”
Want more?

Download the integration at: https://splunkbase.splunk.com/app/3598/

Visit us at booth #xxxx for more demo goodness
Don't forget to rate this session in the .conf2017 mobile app
### Ready, Set, Go! Learn From Others - The First 30 Day Experiences of ITSI Customers: Tuesday, September 26th, 2017 12:05 PM - 12:50 PM Room Salon C

### Splunk ITSI Overview: Tuesday, September 26th, 2017 1:10 PM-1:55 PM Room 147 AB

### PWC: End-to-End Customer Experience: Tuesday, September 26th, 2017 2:15 PM-3:00 PM Room 143ABC

### RSI: Operational Intelligence: How to go From Engineering to Operationalizing IT Service Intelligence Where the Rubber Meets the Road: Tuesday, September 26th, 2017 2:15 PM-3:00 PM Room 147AB

### Cardinal Health: Ensuring Customer Satisfaction Through End-To-End Business Process Monitoring Using Splunk ITSI: Tuesday, September 26th, 2017 3:30 PM-4:15 PM Room 143ABC

### ITSI in the Wild - Why Micron Chose ITSI and Lessons Learned From Real World Experiences: Tuesday, September 26th, 2017 4:35 PM-5:20 PM Room Salon C

### Event Management is Dead. Time Series Events are the Means to the End, not the End Itself. See How Event Analytics is Revolutionizing IT: Wednesday, September 27th, 2017 11:00 AM-11:45 AM Ballroom C

### Triggering Alerting (xMatters) and Automated Recovery Actions from ITSI: Wednesday, September 27th, 2017 1:10 PM-1:55 PM Room Salon C

### Leidos - Our Journey to ITSI: Wednesday, September 27th, 2017 2:15 PM-3:00 PM Room 147AB

### How Rabobank's Monitoring Team Got a Seat at the Business Table by Securing Sustainability on Competitive Business Services Built on Splunk's ITSI: Wednesday, September 27th, 2017 2:15-3:00pm Room 147AB

### Here Comes the Renaissance: Digital Transformation of the IT Management Approach: Wednesday, September 27th, 2017 3:30 PM-4:15 PM Room Salon C

### The ITSI ‘Top 20’ KPI’s: Thursday, September 28th, 2017 10:30 AM-11:15 AM Room Salon C

### Automation of Event Correlation and Clustering with Machine Learning Algorithms – An ITSI Tool: Thursday, September 28th, 2017 11:35 AM-12:20 PM Room Salon C

### Event Management is Dead. Time Series Events are the Means to the End, not the End Itself. See How Event Analytics is Revolutionizing IT: Thursday, September 28th 2017 11:35 AM - 12:20 PM in Ballroom B

### IT Service Intelligence for When Your Service Spans Your Mainframe and Distributed ITSI: Thursday, September 28th, 2017 1:20 PM-2:05 PM Room Salon C