Feedback amplification - Application Monitoring using Splunk

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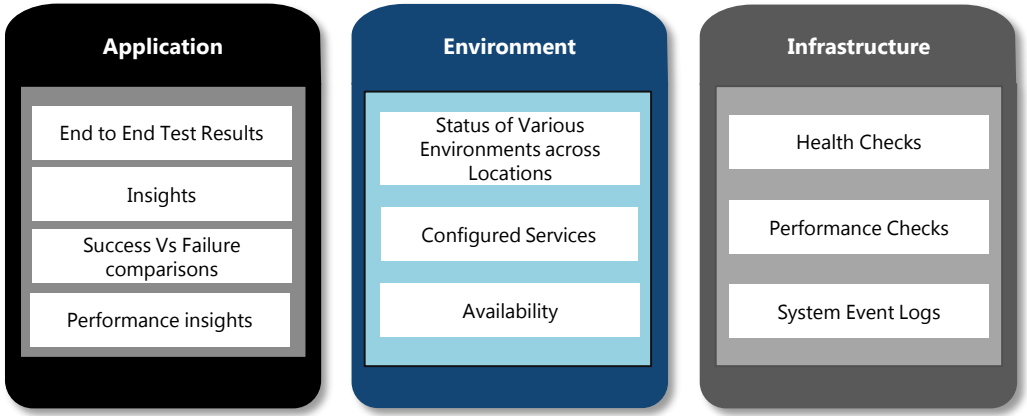
Date: 04/20/2018

Automated monitoring & Interactive dashboards - Splunk

Dynamic Analytics Performed across various stacks



- ✓ Deriving environment health status based on various application
- ✓ Over all applications health spread across various regions
- ✓ Infrastructure health of various servers(Unix, Windows)
- ✓ Applicability of Single Value, Time Chart, Bar Chart, Geo-stat visualizations
- ✓ Reusable Splunk Processing Language components using Macros and Lookups

Case Study: Full stack monitoring solution for leading retail customer

Dynamic dashboard views

SUMMARY: Implemented E2E business flow monitoring solution to track the order flow status across various interfaces for multiple environments to proactively monitor order processing using SPLUNK enterprise monitoring tool. Solution Enabled Monitoring and Analytics for full stack including Infra, App, Interface monitoring for multiple DCs across Locations

BUSINESS CHALLENGE

- Lack of visibility of Environment health due to Inadequate monitoring of Environment across App, Infra, Interfaces , Integration points
- Limited monitoring of the E2E order flows for various application.
- Higher Turnaround time for service restoration.
- Lack of trend analysis for Incidents, Events across multiple Environments / Geos as part of business flow.

SOLUTION HIGHLIGHTS

- Dynamic Dashboard for Env / Applications Monitoring , scheduled automated reporting for various applications health and Order flows.
- Status of various sites representing geo-graphically
- Over all status of the various environments including Infra, Applications and Interfaces.
- Application error trend ,health trend analysis
- Effective Event Consolidation & Correlation

SCALE & COMPLEXITY

- 30 Sites / DCs across multiple Geos (US and CANADA)
- 300+ applications & service components (SAP, PWM, ICS)
- 60+ non prod environments including 800+ servers
- Test environment had 800+ servers and 1000+ assets
- Environments includes: Dev, Test, Staging and Certification Lab

SERVICES

- ☐ Lifecycle Analytics and
- ☐ Full Satck

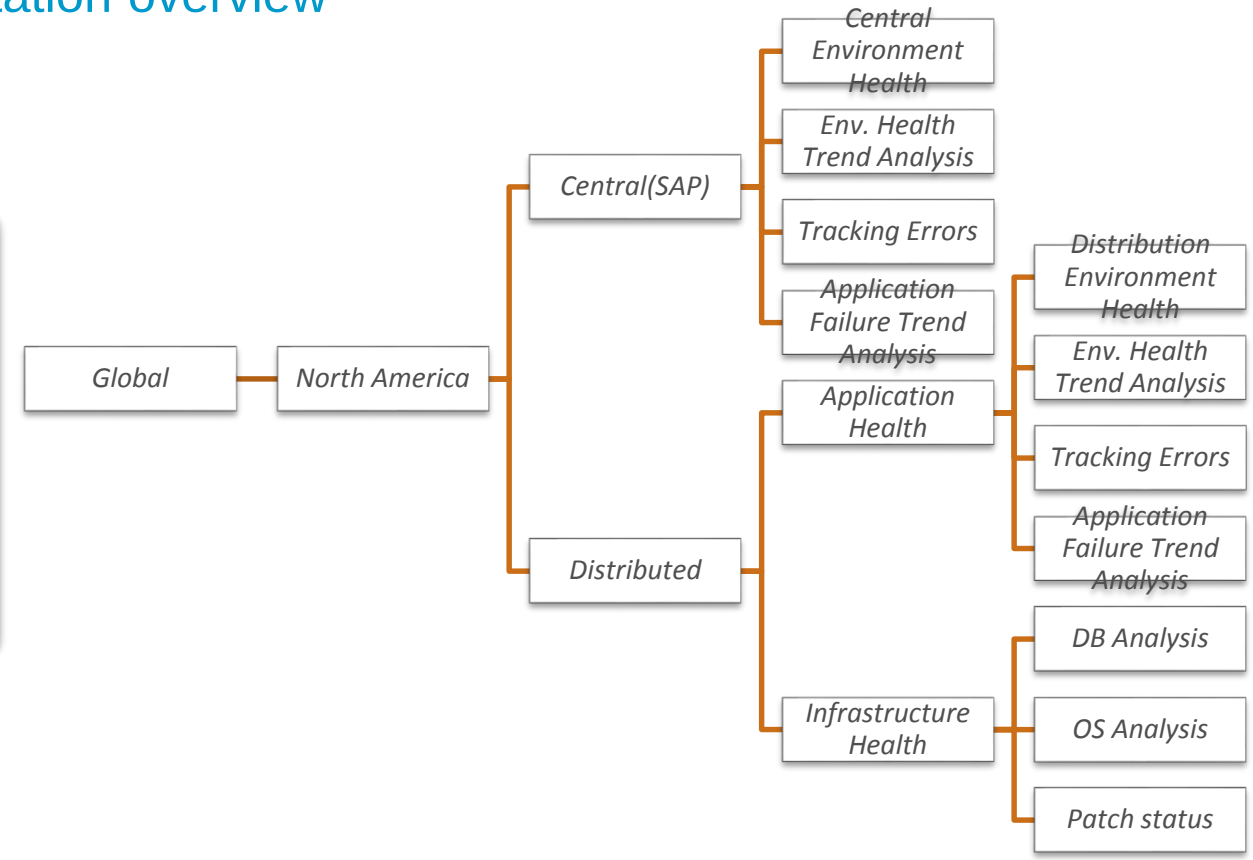
IMPACT/BENEFITS

- Automating to improve the Speed, correctness, reducing manual errors
- Increase SLA Compliance
- Accelerated time to market and reduce risk
- Increased Quality and reduced defects related to environment
- Reducing the manual efforts for Issue, Problem traceability

Dashboard implementation overview

Dashboard implementation overview

- *Hierarchical view of dashboards with navigation from each dashboard to other.*
- *Leveraged components like*
  - *Macros*
  - *Lookups*
- *Created parameterized macros to achieve re-usability*
- *Generalized scripts to replicate for various regions*



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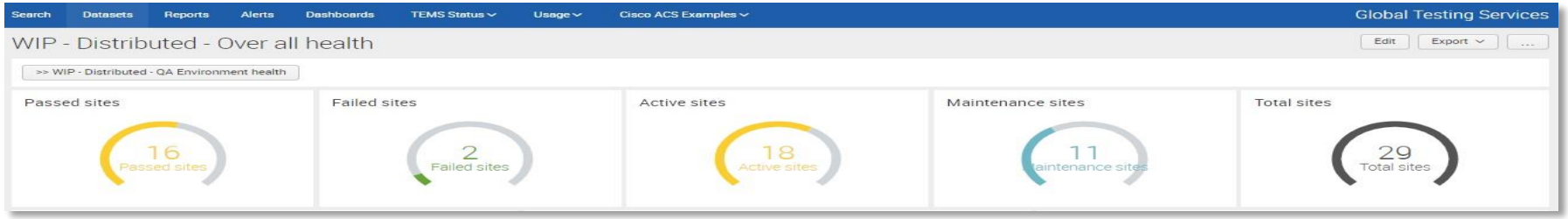
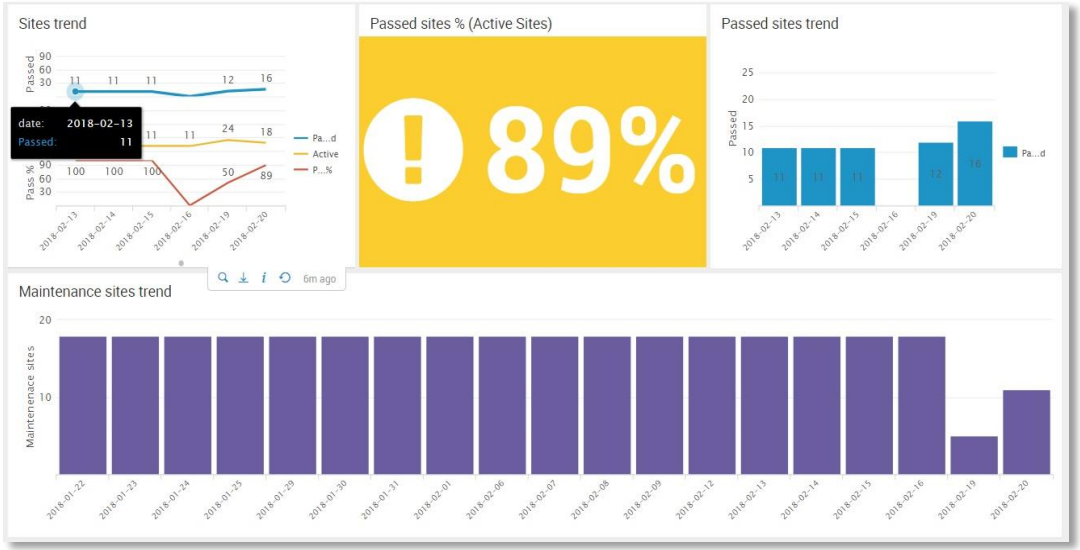
Over all status at a glimpse



An over all status dashboard

- Site statistics
  - Passed
  - Failed
  - Active
  - Maintenance
  - Total
- Pass sites percentage
- Passed sites trend
- Maintenance sites trend



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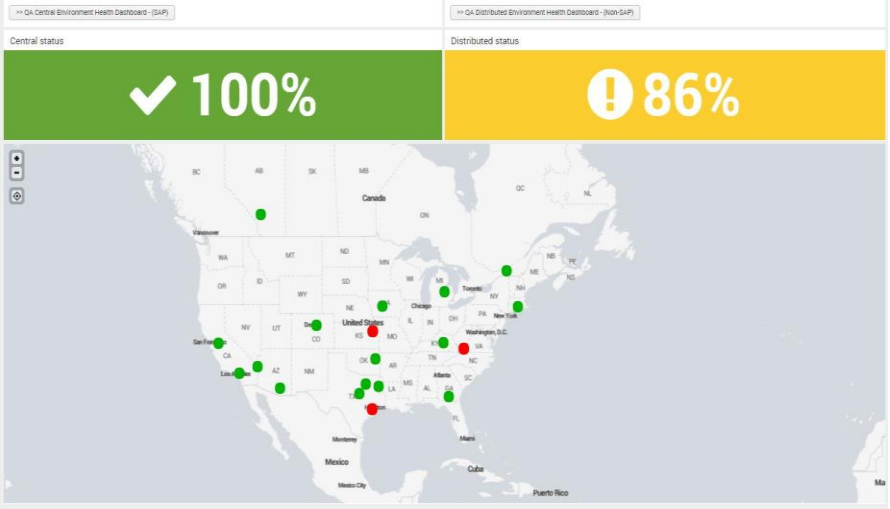
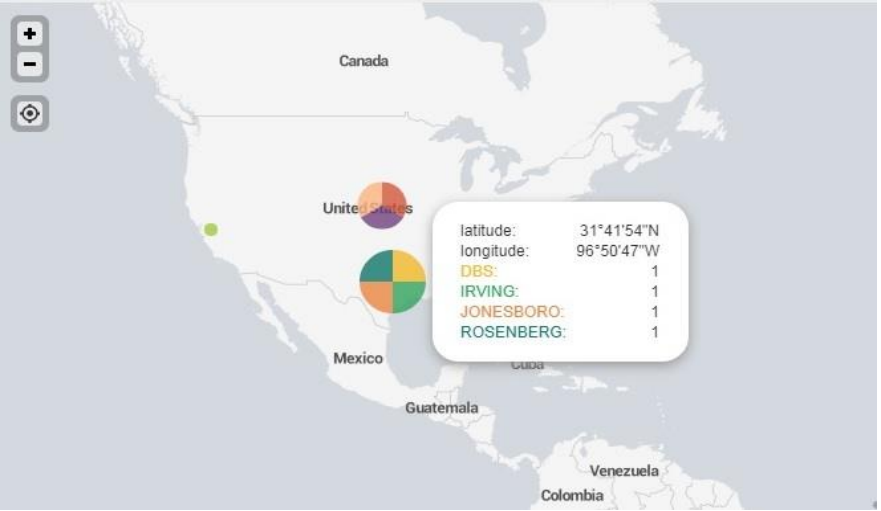
Application status & site locations – Geographic representation

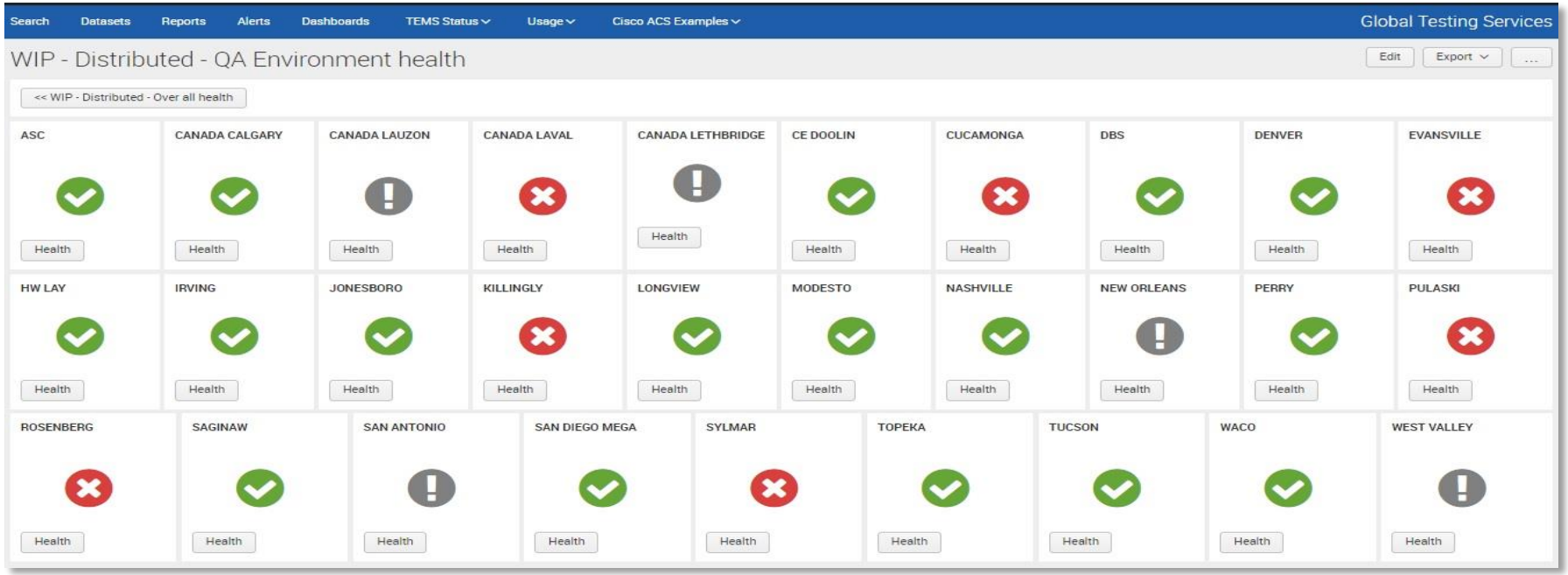




Application status & site locations

A geo-graphical representation of availability of the sites and the health of the sites with the percentage.

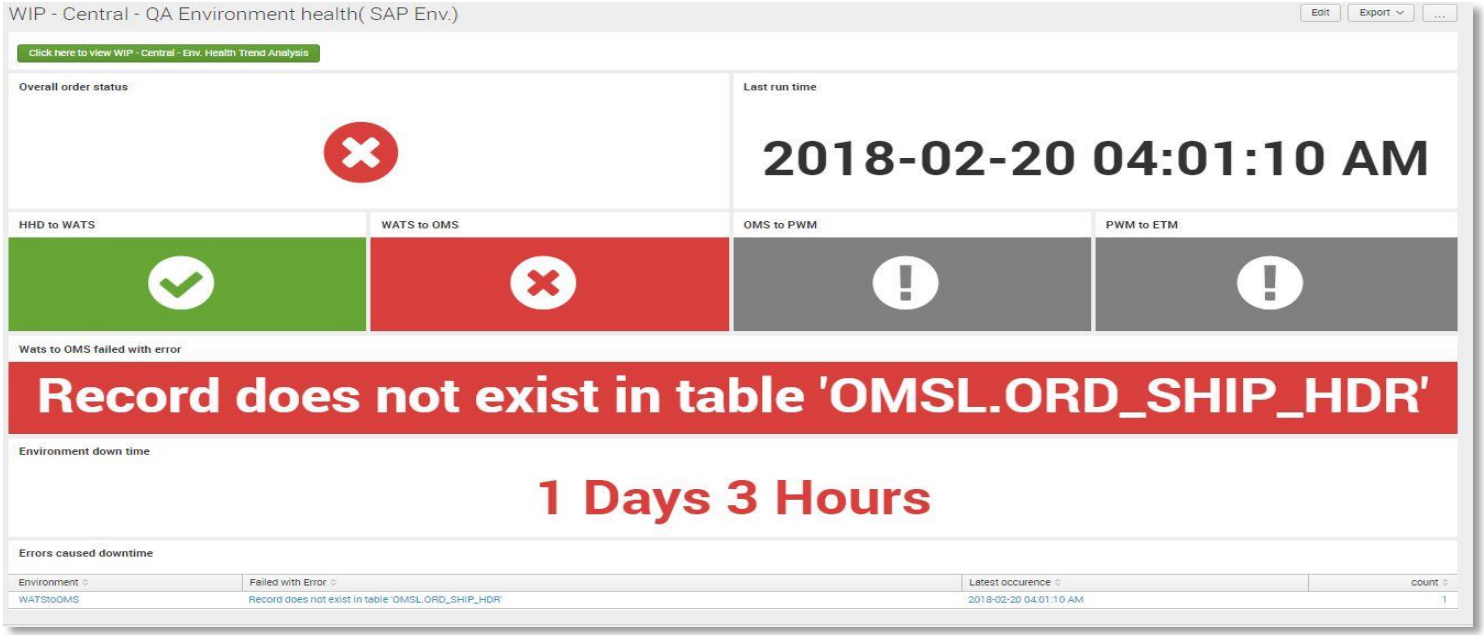
One place health for all the sites



One place health

- *One dash board to represent the health of all the available sites.*
- *Enables link to individual sites health*
- *Status includes Passed, Failed, Not Executed / Maintenance Mode*

Order status and flow in an environment



Order status & flow

Understanding the status and flow of the order. If the order fails we will show

- *the reason for the failure*
- *Down time caused by the error*
- *No of errors occurred during the down time*

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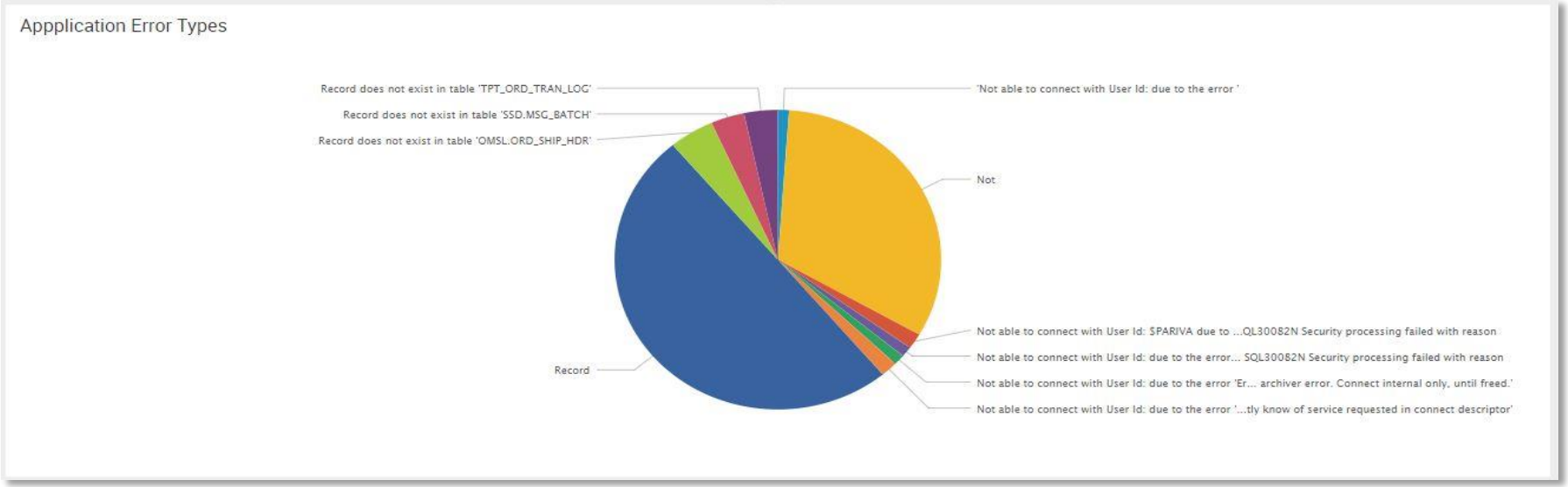
Application status trend over time – By interface

Trend over time

Application trend of Passed Vs Failure Vs Not Executed overtime

Error analysis – Type of errors and their trend over time

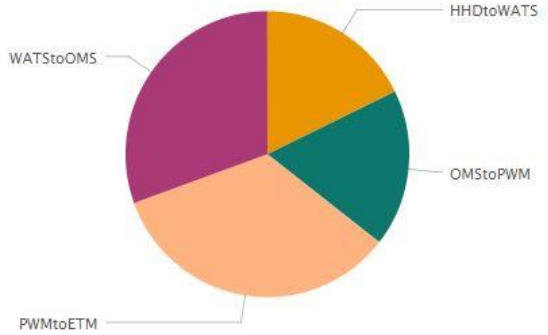


Error analysis

Graphical representation understanding the over all errors occurred in the application across various sites and their contribution towards application failure.

Error analysis – Occurrence and interface contribution

Appplication Error Types by environments



Errors list by environment

Environment	Failed with Errors
HHDtoWATS	Not Not able to connect with User Id: due to the error 'Error := -2147467259 [IBM][CLI Driver] SQL30082N Security processing failed with reason Record Record does not exist in table 'SSD.MSG_BATCH'
OMStoPWM	Record
PWMtoETM	'Not able to connect with User Id: due to the error ' Not Not able to connect with User Id: due to the error 'Error := -2147467259 [Microsoft][ODBC driver for Oracle][Oracle]ORA-00257: archiver error. Connect internal only, until freed.' Not able to connect with User Id: due to the error 'Error := -2147467259 [Microsoft][ODBC driver for Oracle][Oracle]ORA-12514: TNS:listener does not currently know of service requested in connect descriptor' Record Record does not exist in table 'TPT_ORD_TRAN_LOG'
WATStoOMS	Not Not able to connect with User Id: $PARIVA due to the error 'Error := -2147467259 [IBM][CLI Driver] SQL30082N Security processing failed with reason Record Record does not exist in table 'OMSL.ORD_SHIP_HDR'

Error analysis

Understanding errors contribution by environment and the errors list occurred in environment.

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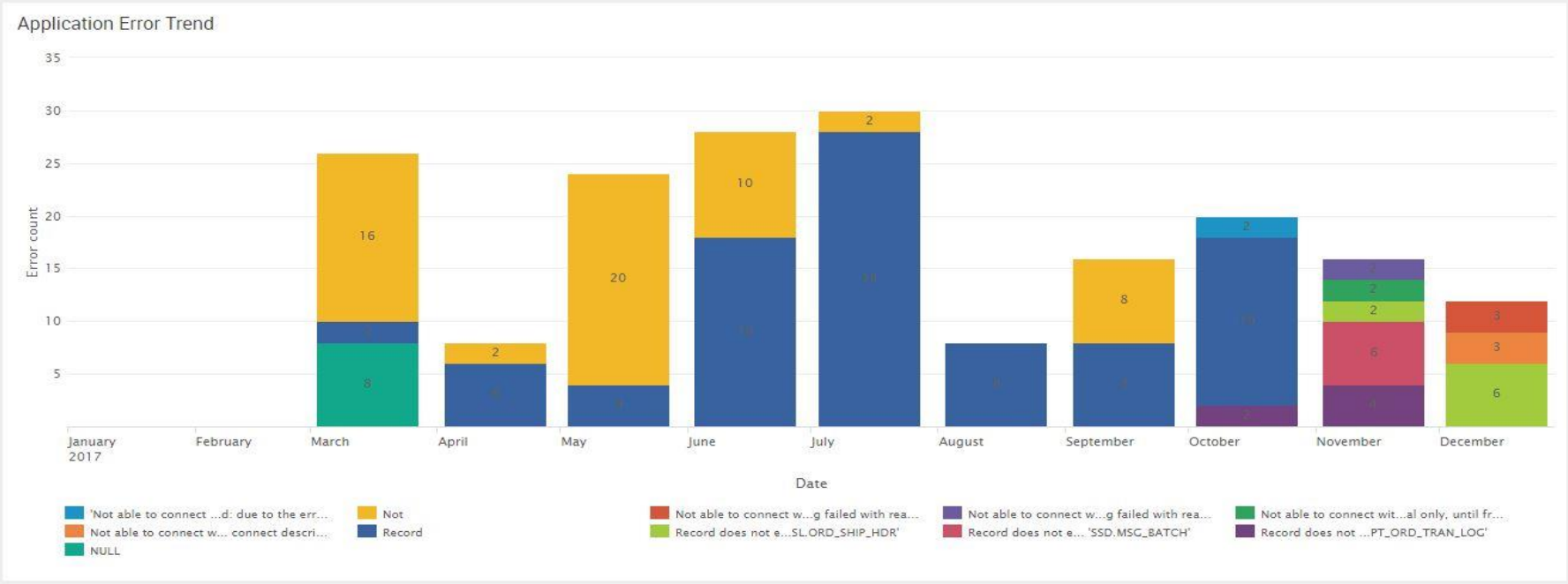
Error analysis – Type of errors and their trend over time



Error analysis

Understanding the trend of errors occurred over a time period.

Infrastructure health

Infrastructure health

Graphical representation of infrastructure health by the hosts. Measures includes CPU, Memory, Network

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KEEP CHALLENGING™