AIOps
Harnessing AIOps for a Retailer’s Digital Transformation at Pace and Scale Using ITSI

October 2019
8,513 MILES FLOWN TO BE HERE

2 NATIONALITIES

AUSTRALIA
ITALY

5 LANGUAGES SPOKEN

ENGLISH (AUS, US)
FRENCH
ITALIAN
SPANISH
SPL
Clear Demand for Digitization

Example Situation

- Created Mobile App
- InCREASED TRAFFIC TO WEBSITE FROM MOBILE: 600%
- MOBILE VISITS / MONTH: 750K
Opportunity for a WISE PIVOT + DIGITAL TRANSFORMATION
Intelligent Enterprise Essentials

APPLIED INTELLIGENCE
Process Automation, Smart Analytics, and Artificial Intelligence to integrate, orchestrate and automate end to end IT processes

DATA-DRIVEN BACKBONE
Real time analysis of structured & unstructured data across entire IT ecosystem for breakthrough insights on improving IT processes, enhancing IT portfolio areas, augmenting IT security and defining new KPI's to metric development

AGILE OPERATIONS
Mature and flexible IT Operating Model for stable and high quality IT service delivery with DevOps for continual improvement of IT processes to embrace agile values and practices

INNOVATIVE TALENT
AI & Analytics driven identification of creative and entrepreneurial talent who understand Intelligent Automation technologies and can drive the IT automation agenda
Challenge 1: Lack of Instrumentation to Monitor & Support a Pivot

Complex app landscape, making control and flexibility a challenge

At any given time, clients are supporting code that went live 40 minutes - 40 years ago!
ANALYTICS CAPABILITY MATURITY MODEL

Development efforts focus on step-wise capabilities to build towards the desired level of intelligence maturity

PROACTIVE

Automation & Self Healing

Adaptive Thresholding & Advanced Correlation

Service-Based Monitoring

Static Monitoring & Alerting

Search & Investigate

REACTIVE
How to Start: Increase Visibility

Step 0
- REACTIVE
  - Limited to no real-time data feeds
  - Manual analysis
  - Excel
  - Coverage only on core website metrics
  - No data-condition alerting
  - Reactive issue detection

Step 1
- PARTIALLY REACTIVE
  - Proof-of concept machine-data feeds
  - Limited data-condition alerting

Step 2
- MOSTLY PROACTIVE
  - Live data feeds from 100 sources
  - Automated analysis
  - 110 monitoring dashboards & 210 alerts covering key apps / technologies
  - Extensive data-condition alerting
  - Proactive issue detection

How to Start:

REACTIVE
- Increase Visibility

PARTIALLY REACTIVE
- Partially Reactive

MOSTLY PROACTIVE
- Mostly Proactive

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Challenge 2: Accelerating to Maintain Competitiveness

Moving to 100% Agile delivery and DevOps ways of working result in radical culture change

How does one keep up with the pace of agility but maintain visibility?
Become More Predictive with ITSI

1. SERVICE TEMPLATES
   Drive Scale

2. GLASS TABLES
   Visualize Complex Architecture

3. MACHINE LEARNING
   Drive Complex Analysis & Continuous Improvement
How to Evolve: Predict, Learn, Automate

Step 3: Expansion of data feeds to further sources
- Predictive analysis
- Predictive alerting
- Issue avoidance

Step 4: Machine learning
- Process automation
- Service aggregation and relationships

Step 5: Glass tables and service templates
- Automated communications
- Containerization and orchestration
- Change discovery

PREDICTIVE
MACHINE LEARNING
AUTOMATION
Example Results

182M
INCREASED SALES IN FIRST 2 YEARS

28%
INCREASED OPERATING PROFIT

45%
INCREASE IN SALES ON BLACK FRIDAY

23%
INCREASE IN WEB / APP VISITS IN 1 YR

38%
GROWTH OF MOBILE COMMERCE SALES
AIOPS DEMO
Configuring the AIOps Ecosystem

Success comes from orchestrating the right end-to-end business service oriented use cases that best align with our desired outcomes

<table>
<thead>
<tr>
<th>Use Case Eg.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance Degradation</strong></td>
<td>APM ➔ splunk ➔ Real-time Incident Mgmt ➔ ITSM</td>
</tr>
<tr>
<td><strong>Outage</strong></td>
<td>APM ➔ splunk ➔ ITSM ➔ Amazon Web Services</td>
</tr>
<tr>
<td><strong>Business Analytics</strong></td>
<td>splunk ➔</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>splunk ➔ Real-time Incident Mgmt ➔ Phantom</td>
</tr>
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It’s not about the tools, it’s about the configuration
Guiding Principles: Building a Mature AIOps Ecosystem

Focus on customer and business-focused outcomes

Anchor on a data backbone of next-gen platforms, with focus on configuration and integration of tools

Stay flexible to accommodate ever changing systems landscapes
Key Considerations for Success & Quick Wins

- Employ an agile methodology and approach focused on user adoption
- Obtain necessary sponsorship and collaboration
- Target mission-critical services or applications first to capture value
- Develop end-to-end use case work flows
- Build stepwise capabilities cohesively
Lessons Learned

1. MAKE IT VALUABLE
   Users love to see this come to life

2. MEASURE BOTH SUCCESS AND FAILURE
   Business is just as defined by the absence of success as it is the presence of failure

3. RELIANCE ON METRICS
   Business metrics are as valuable as technical metrics, but the best possible combination is to have them together and linked

4. DATA CURIOSITY
   Encourage everyone to be relentlessly curious when it comes to data
Thank You!