

A Customer Journey to TrueSight Operations Management

Unlimited Release
August, 2016

Eric Santillanes
Solutions Architect

Cassie Derrick
Technical Team Lead

bmc digital IT
engage'16

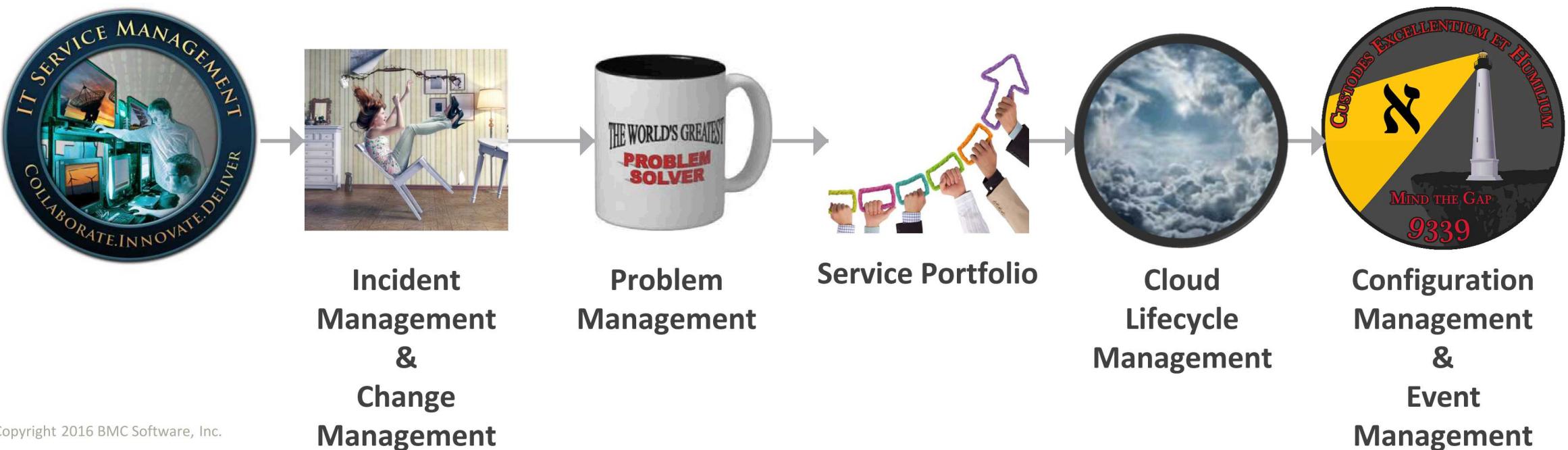
AGENDA

1. Where Did We Start
2. Evaluation and Selection
3. Review of Implementation To-Date
4. Next Steps

Essential Starting Point

Upper Management Support. Clarify strategic objectives, Project funding, Securing project resources, Project governance, Project buy-in, Managing risks, Making decisions

Steady Expansion of IT Service Management Objectives. The ITSM evolution began five years ago





Evaluate Current State

- Technical domain experts were identified in Networking, Database, Middleware, Server Hosts, and Applications
- An internal assessment was conducted to determine monitoring deficiencies
- Analysis why various technical domains self-monitor or do not monitor at all



Proof of Concept

- Results of the internal assessment were used as requirements
- Numerous monitoring tools were evaluated including proof of concepts at the Sandia site



Purchase Tool

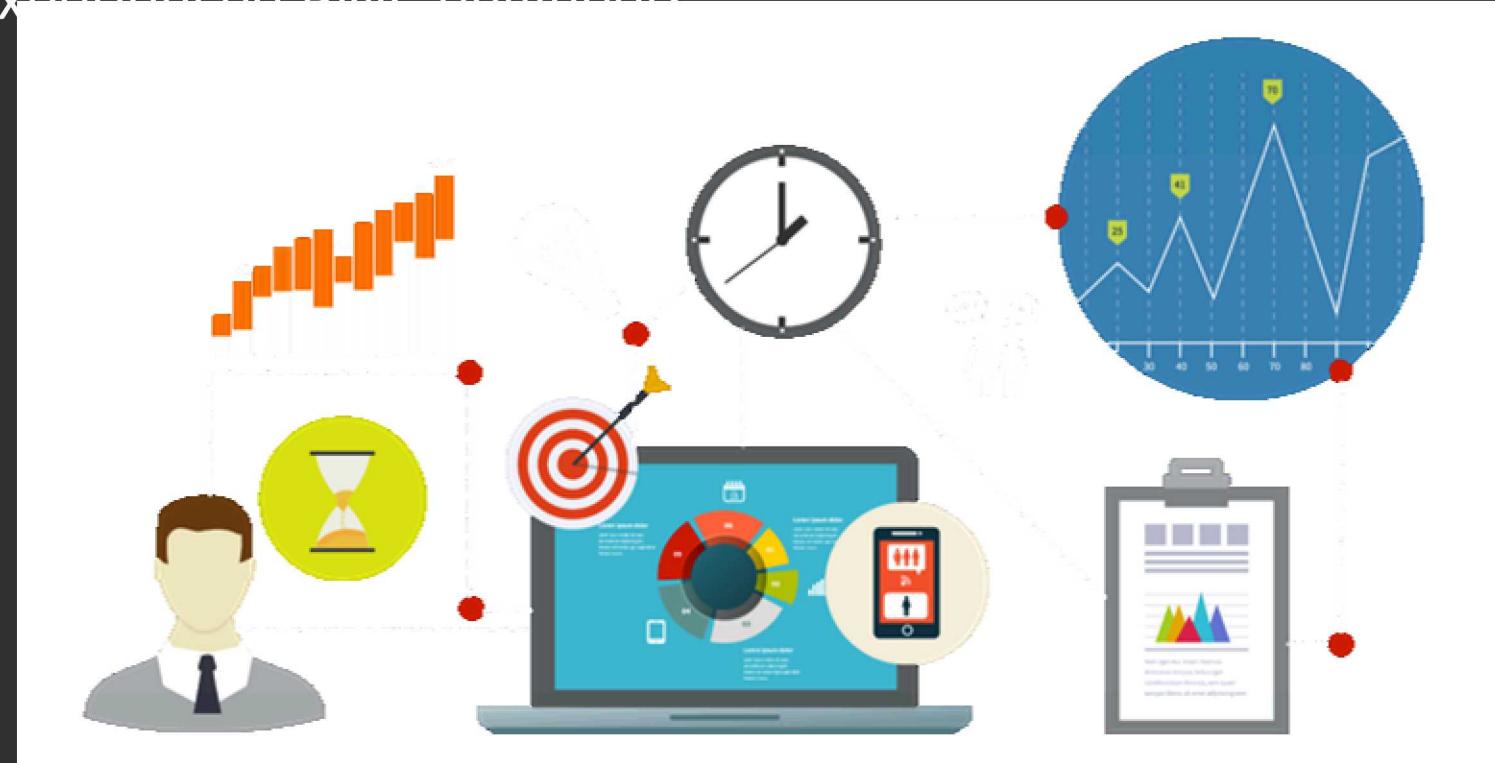
- TrueSight Operations Management 10.1
- Tool selection made with the intent to implement a formal Event Management process and integrations to the existing tools including ITSM and Atrium CMDB
- Technical Domain Experts were brought into validate requirements and build monitoring standards.
- The tool will enable Business Service Management

TrueSight Operations Management 10.1 Implementation

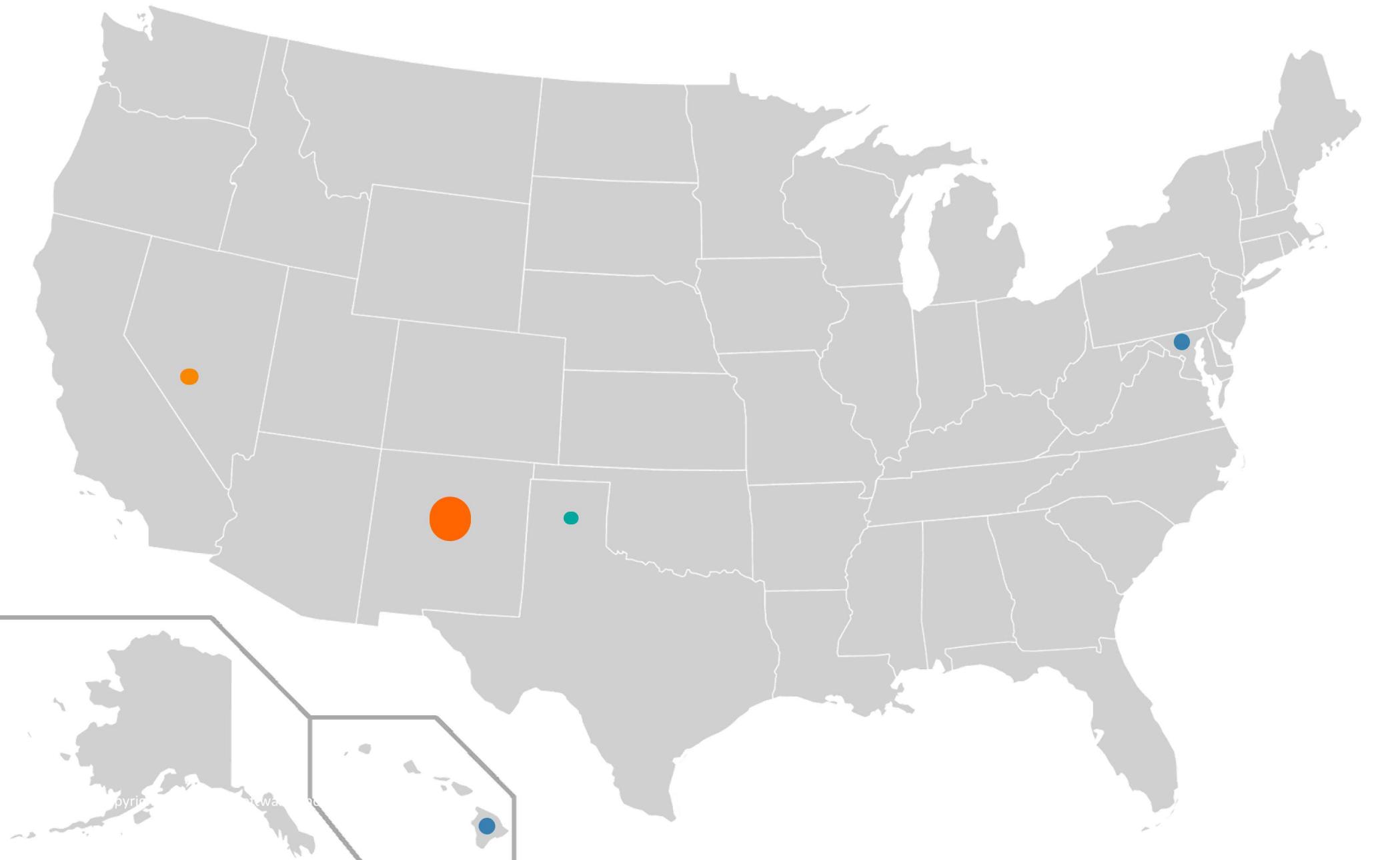
We needed some help. Although not new to enterprise monitoring, Sandia is new to BMC event management products. We found that the BMC community had limited resources familiar with the TrueSight products. Fortunately, we were invited to participate in the TrueSight 20 20 program which allowed us to perform the install and basic implementation with ~~experienced BMC engineers~~.

Where to begin?!

- **Application Monitoring**
 - Synthetic transactions
 - Application Diagnostics
- **Ping Monitoring**



Synthetic Transactions



events to our Operations
availability, accuracy and
from as much as 17 different

SOC_Dev application: Availability problem in execution plan Sharepoint_SSRS (critical)

Occurred
1:35 PM
08/24/2016



Summary Internals Object Source Logs & Notes Others Probable Cause Analysis Remote Action

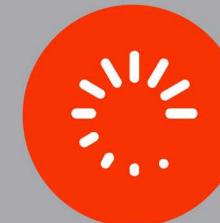
Summary Overview :

Class
APM_Event_v2
Occurred
08/24/2016 1:35 PM
Detailed Message
Object Owner

Status
Open
Message
SOC_Dev application: Availability problem in execution plan Sharepoint_SSRS (critical)
Object Class

Owner
Modified
08/24/2016 1:42 PM
Object
Service

Severity
Critical



Out of the Box

Critical details are not provided in the out of the box notifications:

- What locations are affected?
- What error types occurred?
- What is the exact error message received by the agent?

Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_P

Summary Internals Object Source Logs & Notes Others Probable Cause Analysis

Summary Overview :

Class	Status
PATROL Event	Open
Occurred	Message
08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_P
Detailed Message	Object Class
Application: SOC_Dev	APM_Synthetic_EP
Location: Dev-Agent_P	Priority
Execution Plan: Sharepoint_SSRS	Lowest
Transaction: TMain	Monitor Instance ID
BrowserNavigate(BrowserEngine: 65 - Communication to Browser engine failed.)	

Patrol Agent

This alarm event provides more critical details

Patrol Agent Events downside – “Event Storm”

Total Events: 46			
	Owner	Occurred ▼	Message
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS is failing; event count is 15
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_P
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_S
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_R
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_A
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_E
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_2
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_1
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_5
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_T
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_h
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_rr
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_P
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_n
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_p
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_a
<input type="checkbox"/>	• *	08/24/2016 1:45 PM	Synthetic Transaction Sharepoint_SSRS has an AvailabilityErrors on Dev-Agent_P

Patrol Agent Event + Abstract Rule

Sandia has developed a way to aggregate multiple failure types and failures from multiple locations into one master event along with a detailed timeline of what the application is experiencing.

Parent Event

← Event Details

Synthetic Transaction Sharepoint_SSRS is failing; event count is 15

Occurred 1:45 PM 08/24/2016 Critical

Summary	Internals	Object	Source	Logs & Notes	Others	Probable Cause Analysis	Applications
Summary Overview :							
Class PA_APM_COMBINE Occurred 08/24/2016 1:45 PM Detailed Message Sharepoint_SSRS is failing. See Timeline Details below. BrowserNavigate(BrowserEngine: 65 - Communication to Browser engine failed.) AvailabilityErrors on Dev-Agent_P at 2016-08-24 13:45:51 AvailabilityErrors on Dev-Agent at 2016-08-24 13:45:51 AvailabilityErrors on Dev-Agent_A at 2016-08-24 13:45:51 AvailabilityErrors on Dev-Agent_P OK at 2016-08-24 13:51:13	Status Open Message Synthetic Transaction Sharepoint_SSRS is failing; event count is 15 Object Class Cell Priority Lowest Monitor Instance ID Suppression Mode	Owner Modified 08/24/2016 1:45 PM Object SOC_Dev Service Tool Key mc.pncell_savm234nt.17bdf9 Is Predictive					

Application Diagnostics

CHALLENGE: identify the **root cause** of an application performance issue.

SOLUTION: Deploy a application diagnostic agent. The agent uses advanced JavaScript injection for both monitoring and discovery of end user interaction with web applications and services. Providing a drill down into the application to uncover **abnormal behaviors** at a component level such as **latency, outages, and transaction rates**, revealing where infrastructure is having problems.

Sandia has leveraged the application diagnostic tool in pre-production environments to pinpoint complex performance problems.

Sandia is partnering with the enterprise load and stress test teams to utilize application diagnostics to quickly resolve performance issues prior to production implementation.



Ping Monitor Implementation

Sandia has developed an automated method for generating a server host and network device ping file. This allows for ping monitoring to be enabled and disabled by device owners.

Identify assets to ping monitor

System administrators designate which items they'd to have ping monitored in Sandia's custom tool/database.

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Integrate data to TrueSight

The Sandia tools team utilizes a data integration tool, Pentaho, to create a list of assets marked to be monitored from the custom tool/database. This file is generated four times a day.

Utilize multiple Patrol Agents

Three Patrol Agents are configured to use the ping list file generated by the data integration tool.

Next Steps

- CMDB integration into TrueSight
- Service models published to TrueSight
- Application maps published to TrueSight

Challenges

The majority of the challenges were around implementing our own SSL certificates and swapping out key integrations.



**Patrol Agent security
level 4
implementation**



**TSAV custom SSL
certificates
This required 3
hotfixes**



**New Atrium SSO
Server
New Oracle
Database instance**



THANK YOU