

# 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**

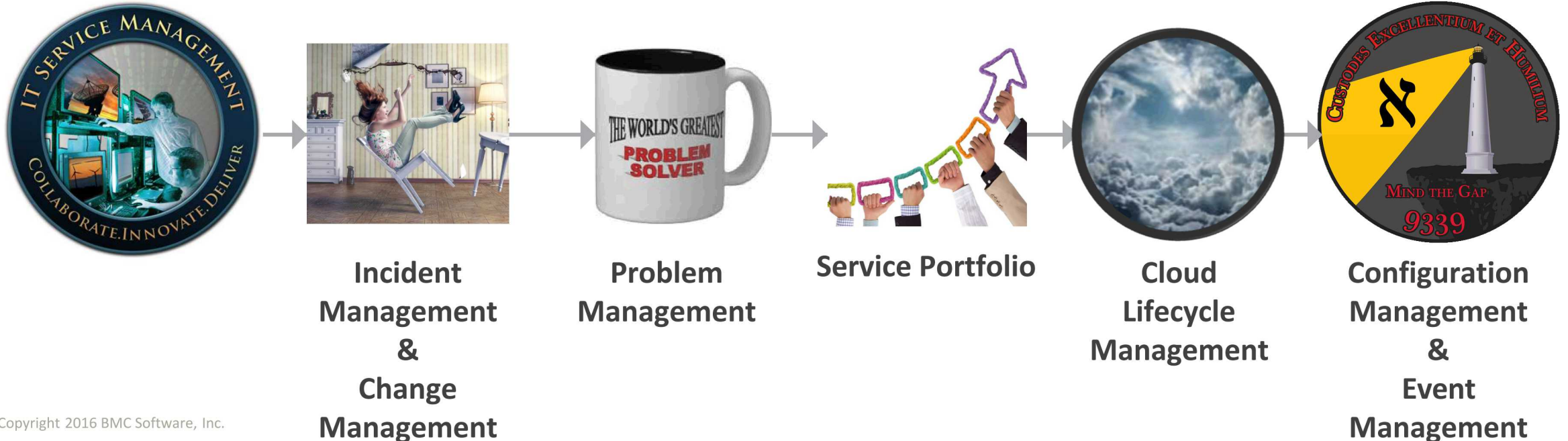
# AGENDA

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

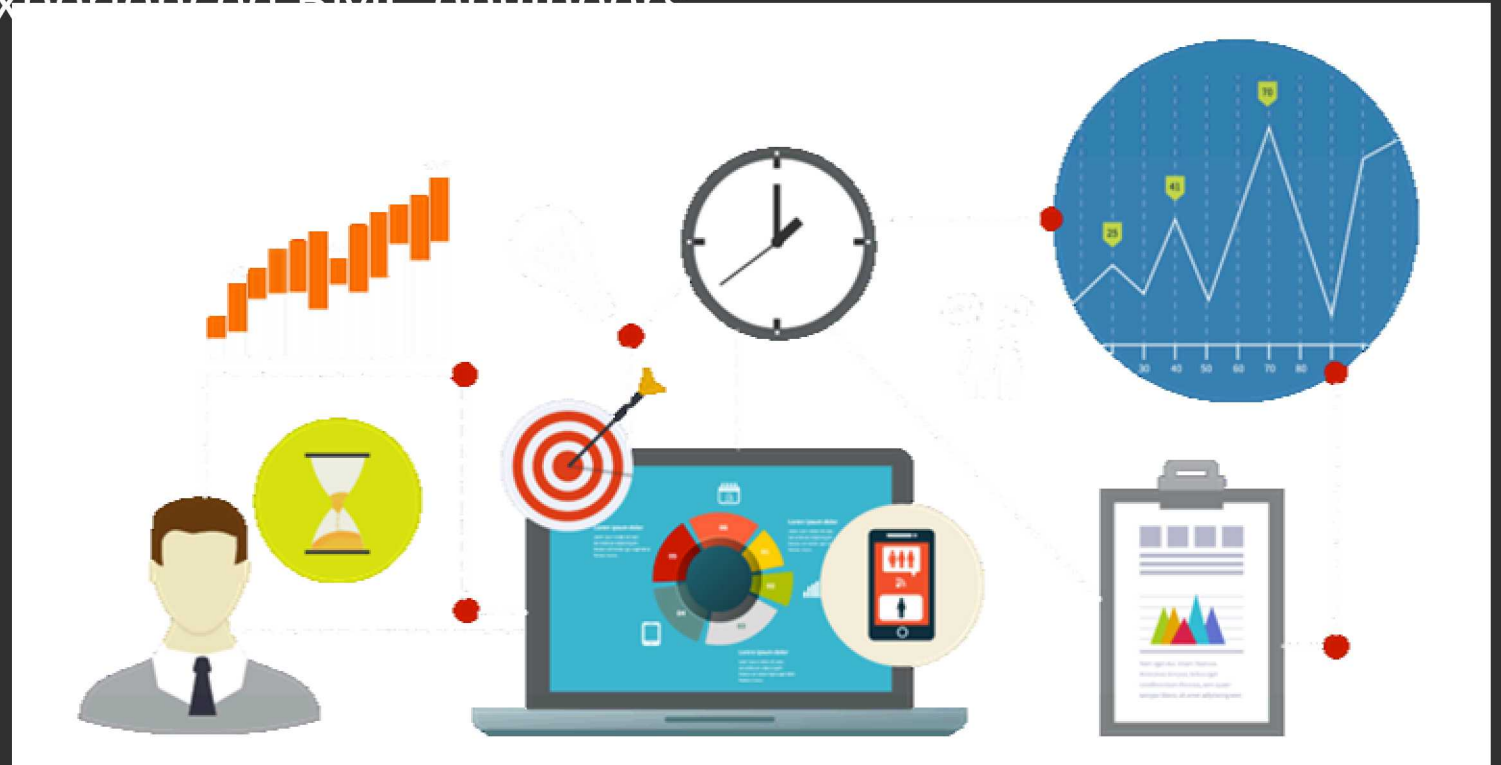


# TrueSight Operations Management 10.1 Implementation

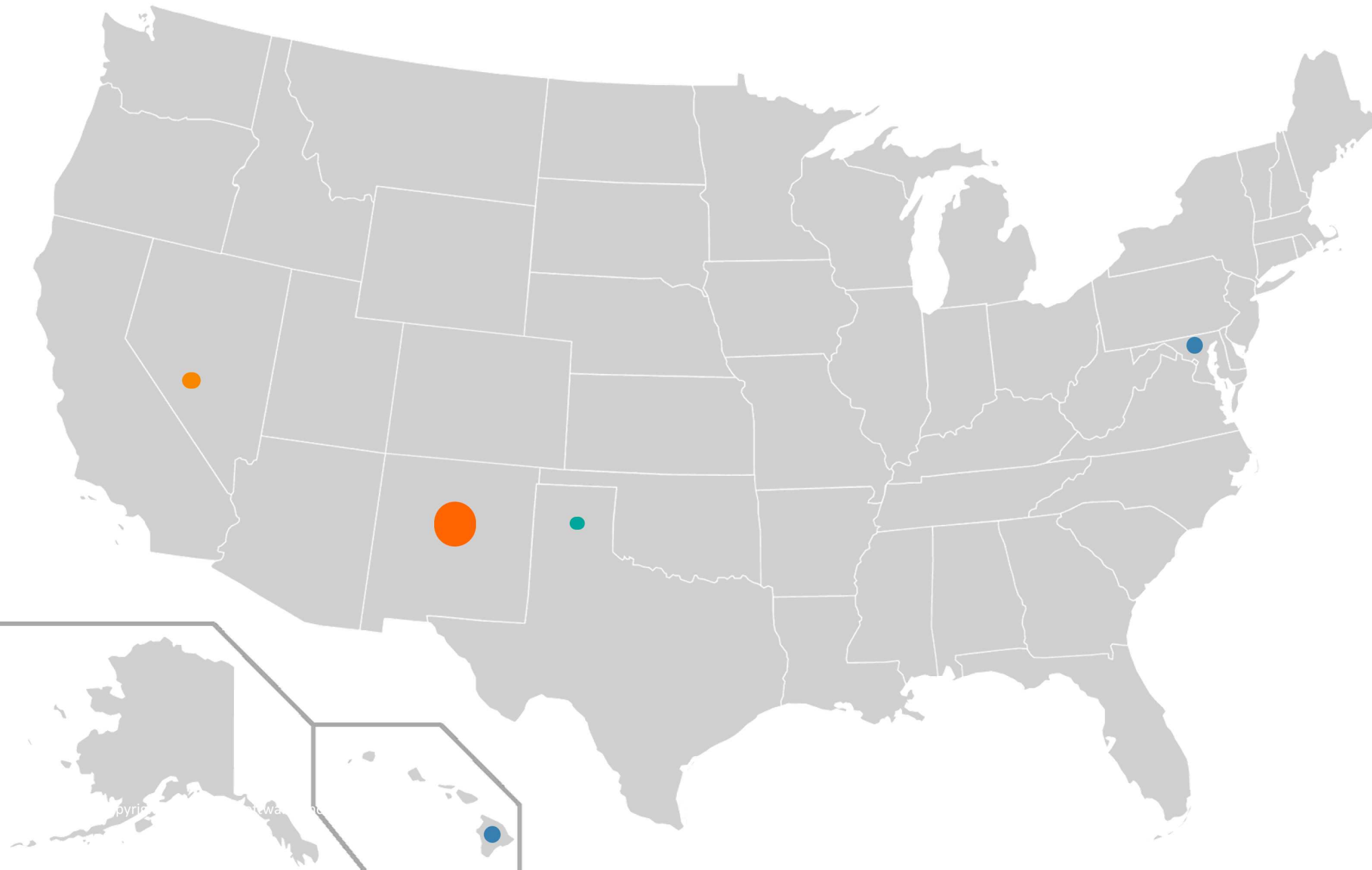
**We needed some help.** Although not new to enterprise monitoring, Sandia is new to BMC event management products. We found that the BMC community had limited resources familiar with the TrueSight products. Fortunately, we were invited to participate in the TrueSight 20 20 program which allowed us to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

Critical

Lowest

Open

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

Service Instance

Severity


Critical


Tool ID


Host

Parent

Event ID







# 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

PATROL Event

Occurred

08/24/2016 1:45 PM

Detailed Message

Application: SOC\_Dev  
Location: Dev-Agent\_P  
Execution Plan: Sharepoint\_SSRS  
Transaction: TMain  
BrowserNavigate(BrowserEngine: 65 - Communication to Browser engine failed.)

Status

Open

Message

Synthetic Transaction Sharepoint\_SSRS has an AvailabilityErrors on Dev-Agent\_P

Object Class

APM\_Synthetic\_EP

Priority

Lowest

Monitor Instance ID

# Patrol Agent

This alarm event provides more critical details



# Patrol Agent Events downside – “Event Storm”

Total Events: 46

<input type="checkbox"/>		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


## Parent Event

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.

← 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.

© Copyright 2016 BMC Software, Inc.


## 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