DX Operational Intelligence 21.3.1

What’s New
Shifting from Monitoring to Observability

Monitoring

- Collection of Data
- Individual Component Status
- KeepThe Lights On

Observability

- Connections in Data
- End-to-End Digital Service Health
- Prioritizing Against Business Impact

“How do I monitor the health and performance of infrastructure and applications in a way that meaningfully considers user experience and other critical business objectives?”

Gartner, Solution Path for Modern Infrastructure and Application Monitoring, 30 November 2020, Gregg Siegfried and Venkat Rayapudi, ID: G00720254
Your Journey Toward Zero Touch Assurance

IS IT UP?
- Event Collection
- Event Correlation & Analysis

IS IT WORKING?
- Metrics Collection
- Performance Monitoring

WHAT'S THE PROBLEM?
- Transaction Monitoring
- Call Stack Tracing
- Root Cause Analysis

WHAT IS THE IMPACT?
- Unified Observability
- Traditional & SDN Support
- Application Delivery Assurance

ZERO TOUCH ASSURANCE
- Actionable Insights
- Auto-Triage and Remediation
- Predictive/Proactive Issue Identification
- SLOs/SLIs, Error budgets, capacity & resource optimization
- Network-as-a-service analytics

Are you here?
Are you there?
Close yet?
The AIOps Platform from Broadcom

Digital Experience Monitoring
- Glassbox
- Dynatrace
- Broadcom
- Catchpoint

Application Monitoring
- Broadcom
- New Relic
- Dynatrace
- AppDynamics

Infrastructure Monitoring
- Broadcom
- Splunk
- Datadog
- System Center Operations Manager

Network Monitoring
- SolarWinds
- Splunk
- Broadcom
- NetScout

Mainframe Monitoring
- Broadcom

(DX Operational Intelligence)

Open Data

Root Cause Analysis

Unified Visibility

Collaboration and Planning

Remediation Workflows

ITSM

+ Other 3rd party tools
DX Operational Intelligence

Smarter IT Operations Through Actionable Insight

Root Cause Analysis
- Alarm Noise Reduction
- Alarm Management
- ITSM Ticketing
- Intelligent Remediation

Unified Visibility
- Tools and Data Consolidation
- Dashboarding
- Reporting
- Single Pane of Glass

Collaboration and Planning
- Capacity Planning and Forecasts
- Inventory Monitoring
- Cross Domain Observability
- Service Assurance
Identify and Address Problems Faster
Leverage Situations to Start with the Right Alarm

- Situations based on configurable Text, Time, Service and Host dimensions
- Network based root cause from DX NetOps root cause analysis
- Filter using Situations and alarm attributes
- Actions supported to open ticket, send a notification, add annotations, assign to troubleshooter and acknowledge or close
- APIs to configure and trigger programmatically
Ticketing & Triage Model

Traditional Ops vs AIOps

**TRADITIONAL OPERATIONS**
- Manual Process
- Error Prone
- Costly
- Repetitive
- Time-intensive

**DX OPERATIONAL INTELLIGENCE**
- Automated Processes
- Consistent And Continual
- Reduces Operator Load
- Improves Accuracy and Efficiency
- Reduces Costs & MTTR
Flexible ITSM and Notification Rules

![Diagram showing ITSM and Notification Rules]

**Policy**

Create notifications for:
- Service Alarm
- Rootcause Alarm
- All Alarm
- Situation

Build a policy to be triggered when filters defined below are met.

- **Filter**:
  - **Alarm Type**: Situation, Cluster
  - **Is Stable**: true
Identify Performance Issues with Anomaly Detection

- Improved anomaly detection algorithm to reduce false positives
- Increased scale handled – up to 5M metrics per tenant
- Intuitive configuration for metrics to be enabled for anomaly detection
- Configurable alarms for identified anomalies
Performance Analytics for Deep Dive Triage

- Cross domain performance metrics visualization for analysis and saved views for future references or evidence in a triage cycle

- Near real time data to stay on top of any performance issues in the monitored environment

- Intuitive filters on entity or metric to narrow down the analysis
Monitored Inventory for Consolidated View of Monitored Environment Across Domains

- Near real time updates for the correlated monitored elements across the monitored environment
- Contextual information and workflows for operators to view alarms, performance metrics, services impacted and capacity projections from a single view
- Filters to identify a critical device or entities belonging to a service or entities in maintenance, etc.
- Manage maintenance windows in context of an entity, a service or a group of devices
Unified Dashboarding and Reporting

• Built in data connectors for alarm, metric, inventory and topology store to create joint views for dashboards providing end to end view

• Drill downs from overview dashboards to detailed views combined with contextual launches of the product features like alarm analytics or service analytics, etc.

• More data granularity supported for widgets in a dashboard to help time based analysis

• Performance improvements to handle large scale of data
Empower Hybrid Teams with Service–Driven Operations
360 Degree Context for Service Owners/SREs

• Contextual information and navigation entry points for:
  - Health, availability and other KPIs with custom service KPI configuration
  - Monitored inventory that are a part of the service
  - Raw alarms and Situations trend over time to identify the health degrading components
  - Capacity projections at the service level to optimize resources in time
• Personalize the service details view for contextual widgets
• 1-minute service KPIs intervals to have the latest IT to Business view
Service Driven Configurations for Consistent Anchor

- Maintenance windows can be configured for the entire service(s) to ease management and suppress alarms and tickets
- Predictive capacity insights can be enabled for services and leverage service KPIs for what-if analysis
- Filters across the product based on services and service tags providing an easy and consistent way as users navigate through their workflows
- Out of the box dashboards for service driven monitoring
Network Services within DX Operational Intelligence

- DX NetOps (Spectrum) services can be leveraged within DX Operational Intelligence to view network services as part of cross-domain services.

- Identify the impact of network services on business or IT services through this integration.

- Easy configuration via Spectrum – OI connector (Spectrum Data Publisher).

Understand alarm rollup to business service delivery.
Manage Services at Scale

• Service Analytics supports up to 20k services across the service drive workflows

• Manage services programmatically via CRUD APIs

• Control and limit service management via out of the Power User role
Integrations
RESTMon 2.1 for 3rd Party Integrations

- Monitor RESTMon performance & health via OTB DX Dashboard
- Improve availability with Liveness & Readiness probes; Works OTB on orchestration platforms such as Kubernetes & OSE
- 7 New Reference Integrations available to get started
- Improved performance of the overall RESTMon framework
Enhanced Ticketing and Webhook Integrations

- New bi-directional integration added for BMC Remedy ticketing
- Additional filters based on service tags, alarm state, etc. for channel policy definitions
- Intuitive Webhook integration via UI with the ability to select the payload attributes and test/validate the Webhook connection before saving to ensure the integration was successful.
Deploy and Manage with Ease
Improved Seamless Installation Lifecycle

- IOPS evaluation pre-requisite for the installer
- Minimized footprint and Export by product for ease of downloads
- Download tokens to control authorized downloads
- Improved Uninstall script
- Path to upgrade from 20.2
- Role-based administration for
  - Cluster administrator
    - Define namespace
    - Define persistent volumes (PVs)
    - Define high-level directories
  - Application administrator
    - Install application using non-privileged ID
- Supported on OCP 4.7 and K8s 1.21
One Stop Settings Page for Easy Tenant Onboarding

- Default landing page for 1st time login of Tenant Administrator
- Provides a virtual tour to familiarize the Tenant Administrator with the Settings page
- Provides all the configurations required for tenant administration in a single view along with the high level summary of the existing configurations
Out of the Box Roles to Control Access and Privileges

- Out of the box roles across the platform to assign pre-defined privileges for:
  - Tenant Administrators: Everything
  - Power Users: Everything except tenant onboarding and user management
  - Users: Primarily read only access

- Provides mapping with SAML groups
Solving the Complex.