ServiceNow® Event Management

The IT challenge

Business today is increasingly digital, and services are software-based. IT provides the mission-critical services to engage customers, automate processes, create innovative technology, and unlock business insights.

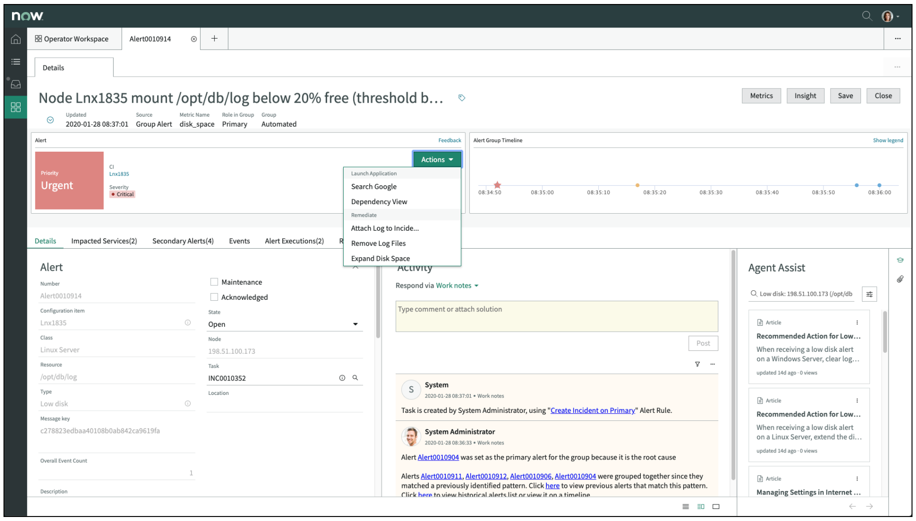
With digital businesses it is a competitive necessity for IT to know the business impact of a service outage in real time, which infrastructure components deliver a specific service, and how these components are connected.

IT provides the foundation for business services, maintaining all resources such as cloud instances, serverless infrastructure, network infrastructure, storage and more. Unfortunately, the multiple disconnected monitoring tools that monitor the health of the resources supporting the services, often increase the challenge IT faces. Each tool generates its own siloed stream of data, and multiple tools often report the same issue. IT is left to manually correlate this information to understand what is actually happening and then struggles to assess the business impact. Yet even when staff manage to do this, there is still a huge amount of noise – a single issue can create thousands of events that may have no business impact at all.

The ServiceNow solution

ServiceNow® ITOM Health with Event Management reduces event noise generated by monitoring tools using Artificial Intelligence for IT Operations (AIOps). AIOps applies machine learning and analytics to IT Operations functions which dramatically reduces the time and effort of manually correlating events by automatically adapting to evolving IT environments. Legacy event management systems that do not provide this level of artificial intelligence leave IT organizations to struggle with huge volumes of poorly correlated events.

Event Management brings events captured by existing infrastructure monitoring tools into ServiceNow for consolidation, analysis, and action. Events are then processed through filters that normalize and de-duplicate the incoming event stream to generate alerts, reducing event noise by up to 99%. The user is also presented with the service impact – which business services are affected and how badly they are affected.



Node Lnx1835 mount /opt/db/log below 20% free (threshold b…

Updated 2020-01-28 08:37:01 | Source Group Alert | Metric Name disk_space | Role in Group Primary | Group Automated

Priority Urgent

CI Lnx1835

Severity ● Critical

Alert

Number: Alert0010914

Configuration item: Lnx1835

Class: Linux Server

Resource: /opt/db/log

Type: Low disk

Message key: c278823edbaa40108b0ab842ca9619fa

Overall Event Count: 1

Description

□ Maintenance

□ Acknowledged

State: Open

Node: 198.51.100.173

Task: INC0010352

Location

Type comment or attach solution

System
2020-01-28 08:37:01 • Work notes
Task is created by System Administrator, using "Create Incident on Primary" Alert Rule.

System Administrator
2020-01-28 08:36:33 • Work notes
Alert Alert0010904 was set as the primary alert for the group because it is the root cause

Alerts Alert0010911, Alert0010912, Alert0010906, Alert0010904 were grouped together since they matched a previously identified pattern. Click here to view previous alerts that match this pattern. Click here to view historical alerts list or view it on a timeline

Low disk: 198.51.100.173 (/opt/db

Article
Recommended Action for Low…
When receiving a low disk alert on a Windows Server, clear log…
updated 14d ago · 0 views

Article
Recommended Action for Low…
When receiving a low disk alert on a Linux Server, extend the di…
updated 14d ago · 0 views

Article
Managing Settings in Internet …

View business services impacted by a single alert

Benefits

Improve service availability with AIOps

Lessen service outages by using AIOps which applies a range of advanced machine-learning techniques to reduce noise, identify service issues and provide related incident, problem, change and knowledge information to speed resolution.

Increase value from existing tools

Consolidate events captured by multiple infrastructure monitoring tools by integrating them through out-of-the-box connectors, 3rd-party connectors, REST API, or SNMP traps.

Understand root cause of service issues

Transform infrastructure events into actionable alerts and incidents that point to the root cause of service issues. All of this data is consolidated in the Alert Intelligence workspace for quick action to reduce MTTR.

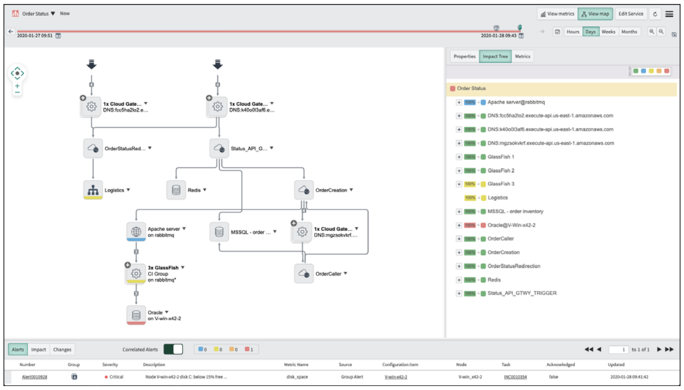
Integration with external monitoring tools

Event Management has out-of-the-box connectors to monitoring tools and can integrate to other event sources via a REST API, SNMP traps, email or JavaScript-based custom connectors. In addition, 3rd-party connectors are available from the ServiceNow Store.

Event Management collects raw events and processes them to generate more qualified alerts for the affected configuration items (CIs). Event Management deduplicates events from monitoring tools into a single normalized alert that can be automatically correlated with a CI in the ServiceNow® Configuration Management Database (CMDB). With an alert bound to a CI, Event Management is able to automatically relate configuration item, incident, problem and change history providing IT with a comprehensive insight to prior and existing issues

Use service maps for fast impact and root cause analysis

Event Management uses ServiceNow® Service Mapping to correlate alerts with services providing IT with a view of impacted services to help identify root causes and prioritize alerts appropriately. Through an interactive service map, IT can easily see configuration items experiencing issues impacting the service and their upstream and downstream dependencies. Automated root cause analysis provides a view of configuration items with confidence scores indicating the most probable cause of a service issue, dramatically reducing resolution time.



Number	Group	Severity	Description	Metric Name	Source	Configuration item	Node	Task	Acknowledged	Updated
Alert0010928		● Critical	Node V-win-x42-2 disk C: below 15% free ...	disk_space	Group Alert	V-win-x42-2	V-win_x42-2	INC0010354	false	2020-01-28 09:41:42

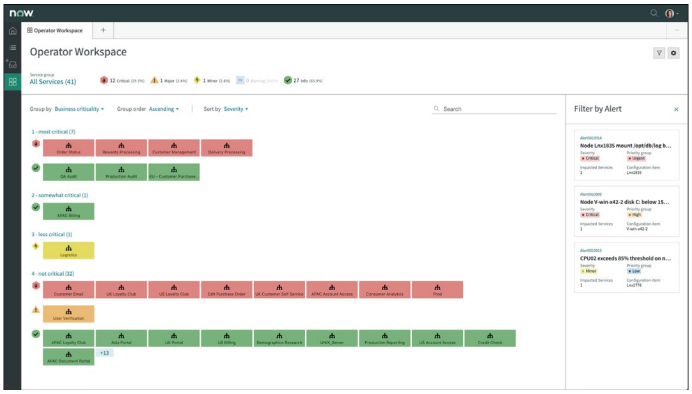
Use service maps for fast impact and root cause analysis

Identify and prevent service outages

IT can detect root cause issues and prevent service outages by using out-of-the-box, machine-learning techniques. By adding ServiceNow Operational Intelligence to Event Management, IT can also use operational metrics collected from monitoring tools via out-of-the-box connectors to investigate performance issues that may be precursors to service outages.

Operator Workspace dashboard

The Operator Workspace dashboard provides a consolidated view of service health enabling IT to easily identify and assess the state of business services impacted by alerts. By selecting an alert IT can immediately see the related impacted business services. Intuitive prioritization by severity and services allows IT to drill into the issue displaying the related CIs, alerts, detected changes, incidents, and change requests in a single pane of glass. The service health map allows IT to quickly determine the configuration item as the most probable cause and triage the issue. Triaging the issue by investigating configuration changes and viewing operational metrics can all be performed in a single view. Once a cause has been identified, remediation actions can be initiated with a simple right-click on a CI in the map, avoiding the need to switch between tools and dramatically improving operational efficiency and reducing MTTR.



Easily identify business-impacting issues and take intuitive action

Alert Intelligence

Alert Intelligence can significantly shorten the mean time to repair (MTTR) and simplify the operator experience by aggregating all the critical information necessary to address an alert in one console. Opening an alert reveals details such as the description, affected CI, calculated priority, severity, activity, impacted services and a timeline displaying secondary related alerts. Alert Insights leverages machine learning to provide related information aggregated from current repeated alerts, similar past alerts, past incidents in addition to knowledge base articles to aid root cause analysis. Potential remediation actions that include past actions that were taken for similar alerts can be performed from Alert Intelligence, giving operators an accelerated route from events to alert to incident to resolution.

Automatic remediation

Event Management allows Alert Management Rules to be configured to automate responses to alerts meeting specific criteria, leading to faster resolution of service issues. Rules can be used to auto-close an alert or attach a knowledgebase article to an alert. Alert Management rules can also be used to automatically create tasks such as incidents, change requests, security incidents, field service work orders or even a customer service case. Using Flow Designer and Integration Hub, IT can create sets of remediation actions that can be automatically triggered or initiated from an alert, such as retrieving a log file, freeing space on a full disk, or restarting a service.