THE STATE OF INCIDENT MANAGEMENT

In any enterprise business, incident management is an important practice. Not only is incident management critical to quality service delivery, in an era of eCommerce and digital businesses, the incident management framework of a company's infrastructure is a crucial piece of technology that can be automated and made artificially intelligent. Concepts like these, make incident management a cornerstone of discussion in 2020.

For this reason, incident management is at the forefront of the 2020 discussions. It makes sense because incident management has so much to gain when machine learning is applied. Below is our take on the state of incident management innovation in 2020.

What is Incident Management?

Incident management refers to the set of processes allowing a business to resume operations after an incident occurs while minimizing the impact on service delivery, customer service, and business goals. Incident management tools and resources often rely on IT teams to optimize, create monitoring and escalation solutions, and manage the incident management system. 2020 has been a year with an unprecedented amount of incidents that have impacted business operations, from pandemic to recession to election year.

During a time where global uncertainty is governing policy changes, changes in leadership and in how businesses best serve customers, incident management plays an important role in reducing a company's liability and profit loss after a disaster or service outage occurs, while increasing its ability

to service customers no matter what conditions under which the business is operating. For these reasons, incident management has become a critical part of the information technology discussion in 2020.

Additionally, new ways to revive old incident management processes have been delivered due to innovation like machine learning. AIOps is a part of the overall DevOps strategy throughout 2020, and incident management is one of those areas where artificial intelligence can really make all the difference.

AIOps: Reinventing Incident Management

Artificial intelligence for IT Operations, or AIOps, play an important role in the incident management discussion of 2020. Here are current processes and concerns with the incident management framework as it stands today:

The Current Incident Management Process

Incident management is characterized by a set of processes that are largely standardized and regulated throughout various enterprise industries. First, incidents are separated, categorized, and prioritized by urgency and impact. Once the impact and urgency of the situation has been assessed and it has been ranked in the queue of incidents that require management, it is further categorized in one of two buckets: normal or atypical events.

A normal incident event might be a customer escalation to IT about service interruption that turns out to be an operator error. This is a pretty typical scenario for businesses with customer service call centers that help manage and record in-bound incidents. An atypical event usually represents something major. One example of an atypical incident is the Coronavirus pandemic causing longer delays in service delivery due to lack of staffing.

In the latter example, the event is atypical because it's not something that a company can predict as part of their business model, and it's major because staffing changes due to COVID are pervasive and likely won't resolve any time soon. Businesses must learn how to adapt to changing economic conditions that may leave a permanent mark on the face of eCommerce, including managing incidents quickly and reliably.

The typical service incident report goes from a call center employee to a support technician, from the support technician to the service account manager, and finally, from the account manager or service owner, it goes to the IT service desk. From the service desk, more high-level management employees become involved from incident manager to crisis manager and all the way up to the CIO in a normal cycle.

The Importance of DevOps in Incident Management

With high, residual costs associated with downtime, it's important that enterprise businesses ensure a fastidious response to incidents as they occur, ensuring the reduction of the overall impact of any unplanned service outages. That's where IT professionals in 2020 are seeing advantages of a newer DevOps approach to managing escalations.

Instead of following the typical chain of command that starts with a customer service call-center employee and ends, in atypical cases, with CIO involvement, DevOps organizations benefit from the

philosophy of if you build it, you can repair it. Under this approach, the team that builds a piece of service infrastructure is also responsible for managing its upkeep and repair. With fewer people touching the process, and only specialized team members that know the product intimately working on repairs, businesses gain speed, flexibility, and agility, saving them money in the event of a major incident.

Challenges to Incident Management: New and Old

Below are some challenges that businesses face with regards to incident management deployment and maintenance:

- When should I seek a custom incident management solution?
- What processes are the most important to automate with machine learning?

When should I seek a custom incident management solution?

When enterprise leaders ask this question, they are challenged with selecting the best tools for their organization which poses a series of dilemmas. First, it's important to understand that no single tool for incident management is likely to cover everything you need to reduce the impact of incidents as much as possible.

For this reason, stakeholders may request a number of solutions, or a solutions package, to be tailored to the needs of the organization. This will often result in a multi-cloud approach with both custom and solutions in a box.

What processes are the most important to automate with machine learning?

If you're a business leader wondering what to automate with machine learning and where you can make the best, most strategic investments in your AI infrastructure with regards to incident management, consider these three areas:

- **Visualizations:** Renderings provide a quick snapshot of an incident to managers and stakeholders across the escalation chain, but can take some time to create, manually. Using machine learning, visual renderings of incidents based on stored data can occur quickly, providing opportunities for faster response.
- **Data-agnosticism:** Creating machine learning algorithms that allow your incident management system to find the most relevant pieces of data and not just the most recent ones establishes an ecosystem where incident decisions are made on the right data, in a business climate where systems are ingesting data of all kinds 24/7. When swift action is required, artificially intelligent programs are better equipped to understand and present the issue.
- **Cross-platform integration:** An incident management system influenced by machine learning can integrate important pieces of data from the entire infrastructure, reaching into integrated data stores to select pertinent data for an incident report.