Three Areas Where ChatBot Automation Improves DevOps

Ease Your Most Painful Challenges with Machine Learning Augmentation

Application complexity and the implementation of mass virtualization, Public, Hybrid and Private Clouds present challenges to the established methods that IT operations teams use to process, assess, respond and learn from application incidents.

As application architectures shift towards microservices, the complexity that the teams face in tracking issues to root cause have grown. How can teams maintain effectiveness in the face of such complexity?

Adding and training staff only goes so far in addressing complexity because they still have to navigate it, knowledge and skills gaps will continue to exist, there will be yet more people to coordinate, and the whole time you still have to identify issues and collaborate quickly – that doesn't go away. The situation is exceedingly dynamic.

We hear that AI and Machine Learning will help us. Many of us seek easy-to-use automation to make tasks faster and easier. Why? Because automation that you command solves a lot. IT Operations teams need a helper. If you use Slack and PagerDuty then automated help is here and you can have it now. RigD machine learning augmentation is available through an app for Slack – it is your helper bot that relieves major IT Ops issues. Let's examine them.

Make it Faster and Easier to Assess-Discover-Prioritize

RigD helps you reduce MTTR and confidently meet SLAs. DevOps teams spend a lot time resolving business-impacting application incidents, outages or slowdowns. Reducing MTTR is a key measure of how we're improving.

RigD helps you to cut through the noise, zero in on the trouble-spots and incidents, and prioritize them faster than you're doing it today. ChatOps is a huge opportunity for operations to act more like dev and use automation to move through incident management faster and for devs to improve operational capabilities through machine learning.

Using the RigD chatbot in Slack reduces the time needed to switch context back to PagerDuty and in some cases a task can be performed through one command versus a series of screens. Comparing individual tasks between our Slack bot and the PagerDuty we see significant time savings:

Incident Lifecycle Management Tasks			
Item	PagerDuty	RigD	Savings
Ack an incident	0:16	0:09	44%
Assign an incident	0:26	0:12	54%
Get Incident Details	0:16	0:05	69%
Add a note	0:25	0:09	64%
Escalate an Incident	0:48	0:12	75%
Add a responder	0:35	0:14	60%
Get on Call for Team	0:27	0:10	63%
Run Response Play	0:22	0:09	59%
Resolve Incident	0:26	0:10	62%
Update Status	0:28	0:10	64%
Update Title	0:26	0:09	65%
Snooze Incident	0:24	0:12	50%
Merge Incidents	0:29	0:18	38%
Averages	0:26	0:10	59%

Image 1. Comparison of incident lifecycle management tasks with and without RigD automation. Automation of these items delivers time savings up to 35%.

Saving precious seconds in each command makes all the difference in the midst of firefighting a business impacting incident. As shown in Image 1, saving 10 seconds on each of these tasks adds up and reduces frustration as well. The average time saved in this example is 35%. The benefits are obvious.

Below in Image 2 we show working an incident in a Slack channel with one other person. You can see a 60% reduction in overall time. Cutting almost 5 minutes off of the incident time can be the difference in meeting your SLA or not.

Working an Incident			
Item	PagerDuty UI	with RigD	Savings
Acknowledge an Incident	0:16	0:09	44%
Get Incident Details	0:16	0:05	69%
Create Working Channel	1:30	0:15	70%
Gather Logs and Config	3:52	0:42	81%
Add a Responder	0:35	0:14	60%
Update Status	0:28	0:10	64%
Make a Config Change	0:40	0:31	23%
Add a Note	0:25	0:09	64%
Resolve the Incident	0:26	0:10	62%
Total	8:28	2:25	71%

Image 2. Comparison of time saved working an incident with one other person, both using RigD.

Apply Expertise Quickly to Diagnose and Fix Business-Impacting Issues

Identifying the correct experts and getting them to collaborate quickly is essential. But it is a challenge because of complex inter-related issues at the root of business-impacting problems.

These four areas waste time and cause frustration, and they can all be improved:

- **Diagnosis**: There is a lot of info teams need to gather from many sources to fully understand the problem.
- **Coordination**: There are so many people to keep updated while the teams are working an issue, it slows down and confuses the resolution effort.
- **Collaboration**: Many incidents require additional people to work and resolve and sometimes the wrong people are dragged in and the right people are added much later than needed.
- **Remediation**: Often the people working the incident are not able to access the tools to remediate the issue.

RigD improves each of those issues by helping you keep a steady hand on the wheel. You can diagnose, coordinate, collaborate, and remediate faster with the correct machine learning augmentation.

Get More from the Aftermath

Grasping underlying issues to achieve better, faster results in the future is essential.

- **Post Mortem**: Gathering the data for postmortems is time consuming and we don't have the time for it.
- **Build Our Own Automation**: We don't have the time or expertise to automate many fixes or process improvements. And even when we do, there isn't an easy way to share that and make it accessible and easy to use for the team. Additionally just have a process flow or script to have the team get prompted to do, will begin to ensure consistency from incident to incident and across the team.

Automated assistance will help you understand and easily get access to information about major incidents so that your future responses will improve.

Conclusion

Yes we have tools to alert us, and other cool tools to improve our communication, but that's not enough. We still spend too much time resolving business-impacting application incidents, outages or slowdowns. They arise at the worst times. Several experts are often required to help with application incidents and they don't have automation at their disposal to make it easier.

As complexity increases so does the effort required to handle issues. Machine learning augmented assistance is the answer we all need. It would improve IT Operations in so many ways if we could save a few hours each week, get the right experts collaborating quickly and more easily address business impacting incidents. RigD is taking on these challenges and we invite you to join us.

We understand the issues we've laid out here. We are machine learning experts who know IT Operations and DevOps. We are working to provide IT Operations and DevOps teams machine learning augmentation that is easy to use. Our flagship offering is a seemingly simple bot for PagerDuty, but underlying it is a powerful machine learning platform. It comes in the form of a Slack app. We are offering trials now that include expert support.

Join the RigD Community

Please contact us at http://www.rigd.io/contact-us if you're interested in using this automation now or in the future.

Also, please add yourself to our community so you can let us know your IT operations pain points and what your team needs help with us. We'll follow you also.

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