

HACKING YOUR PRODUCTIVITY WITH BROWSER USERSCRIPTS

Jordan Neufeld

WHO I AM

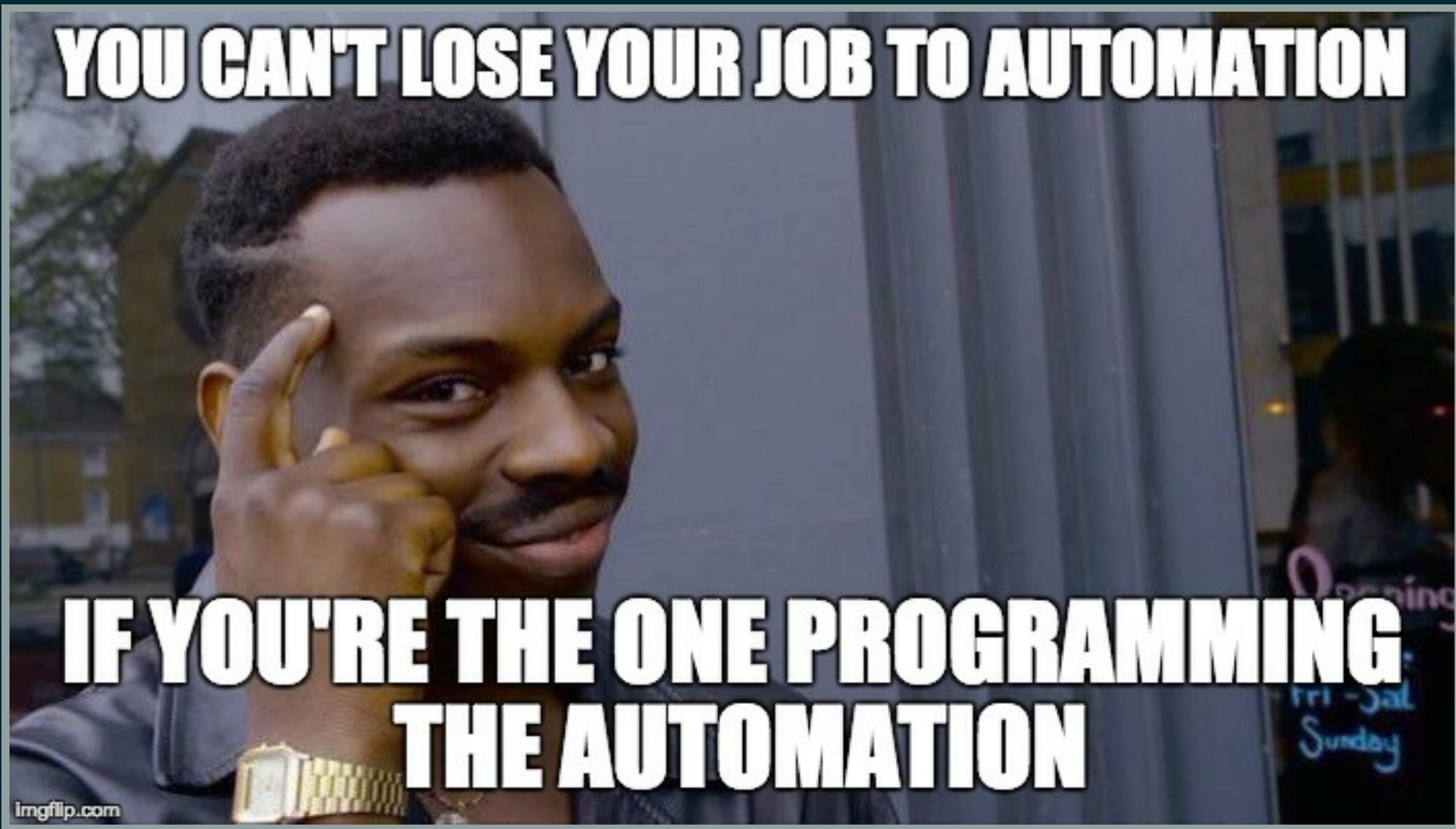


- Computer guy
- Musician

THE AGENDA

- What are userscripts?
- What can they do?
- How to be awesome

USERSCRIPTS: A DIFFERENT KIND OF AUTOMATION



ENTER USERSCRIPTS

- We are NOT writing a browser extension
- We ARE extending functionality of webapps with a userscript browser extension

I'M GETTING BORED, WHEN DOES THIS GET AWESOME?

- Very soon



Your browser does not currently recognize any of the video formats available.

[Click here to visit our frequently asked questions about HTML5 video.](#)



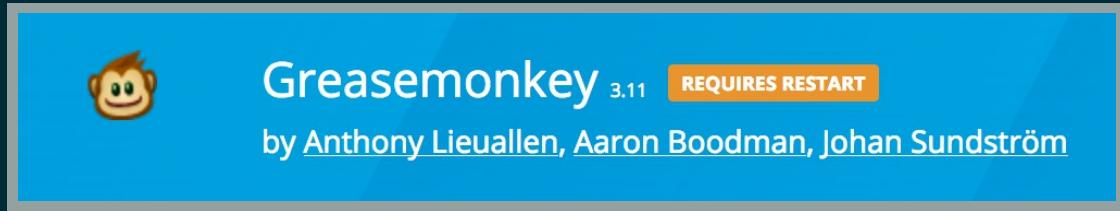
0:00 / 1:27



YouTube



I CAN HAZ THE POWER?



USERSCRIPTS ARE JUST CLIENT-SIDE JAVASCRIPT

THE TAMPERMONKEY LIBRARY

Tampermonkey
v4.3.6 by Jan Biniok

Installed userscripts | Settings | Utilities | Help

Apply this to all selected scripts: -- Please choose an option -- Start Filter by: Auto Close

#	Name	Version	Type	Sites	Features	Homepage	Last updated	Sort	Actions
1	GameCenter enhancer	0.1		NFL			278 d		
2	GDOC marker	0.2					278 d		
3	GDOC Status Bar	0.2					20 d		
4	Pocket Loading	0.1		NFL			278 d		
5	Tech Support Auto Ticket Response	2.6					50 min		
6	Create JIRA ticket from Nagios	0.12					275 d		
7	Display Nagios Command for Service	0.3					245 d		
8	Create JIRA ticket from OCUM	1.1					267 d		
9	OPS Incident Enhancements	2.3		X			10 d		
10	Pocket Hacks	0.22		NFL			278 d		
11	Create Jira Issue From Slack	1.0.0					9 d		
12	Create JIRA ticket from Nagios	0.12					275 d		
13	Remove NDC Traffic driver	0.1		NFL			251 d		
14	Better Hacker News	0.0.2		Y			249 d		
15	Alert Consolidator Companion	0.3					193 d		
16	AppDynamics	0.1		A			113 d		
17	Ops-Init Companion	1.1		?			95 d		
18	Cyber-education	0.1		?			85 d		
19	Github colorpicker	0.2		G			3 d		
20	Incident Ticket Outage Report CopyP...	0.2					6 d		
21	Cyber-education II	0.1					11 d		

INSTALLING A SCRIPT

The screenshot shows the Tampermonkey extension interface. At the top, it says "Tampermonkey" by Jan Biniok with an "Install" button. Below that, the script details for "GitHub Code Colors v1.1.8" are shown:

- AUTHOR: Rob Garrison
- DESCRIPTION: A userscript that adds a color swatch next to the code color definition
- SOURCE: <https://github.com/Mottie/GitHub-userscripts/raw/master/github-code-colors.user.js>

A red arrow points from the text "github-code-colors.user.js" to the source URL in the list.

Under "UserScript installation", there is a warning message:

Malicious scripts can violate your privacy and act on your behalf! You should only install scripts from sources that you trust.

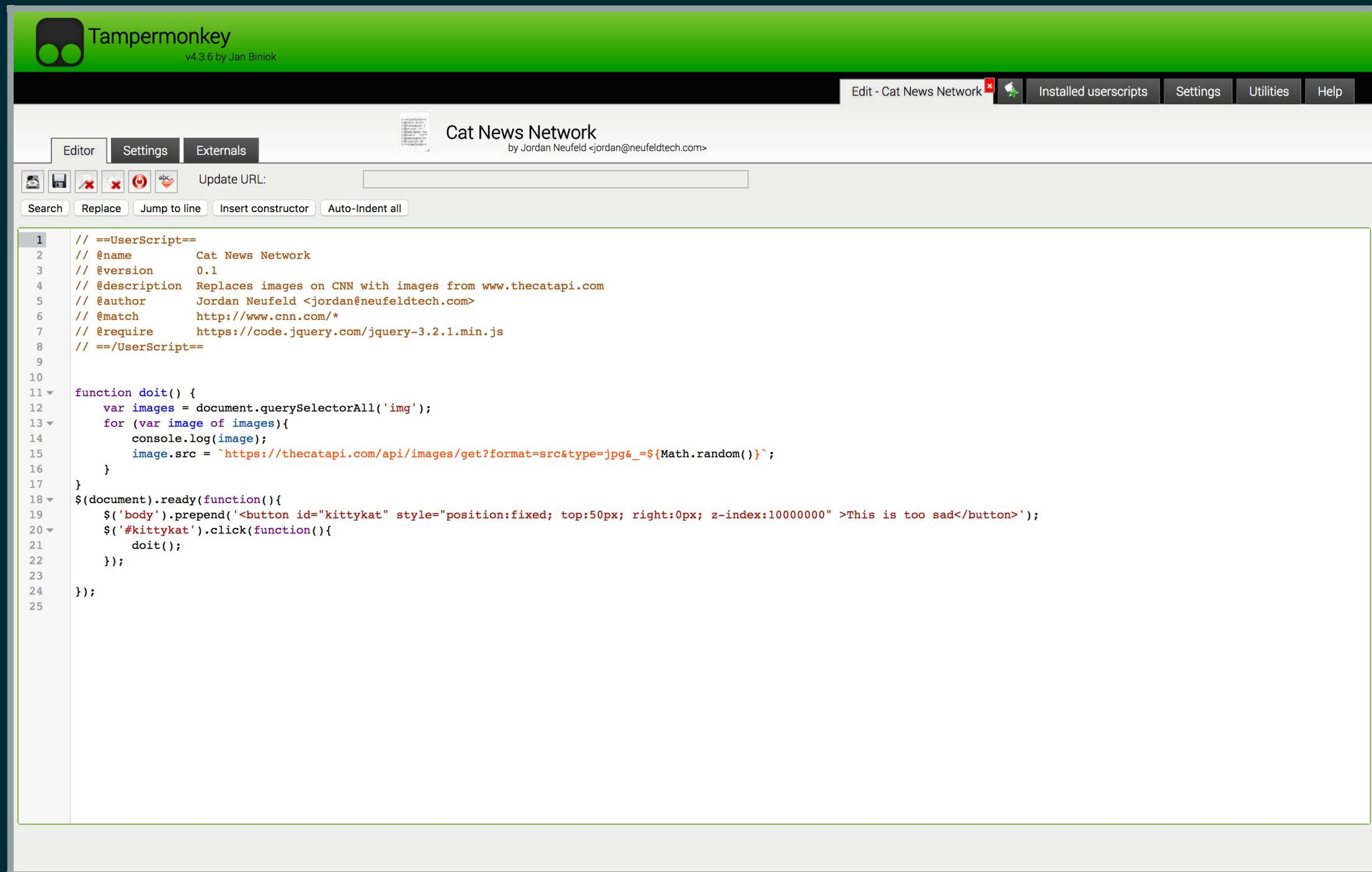
INCLUDE(S): https://github.com/*

At the bottom, there are "Install" and "Cancel" buttons. Below them is the user script code:

```
// ==UserScript==  
// @name      GitHub Code Colors  
// @version   1.1.8  
// @description A userscript that adds a color swatch next to the code color definition  
// @license   MIT  
// @author    Rob Garrison  
// @namespace https://github.com/Mottie  
// @include   https://github.com/*  
// @run-at    document-idle  
// @grant     GM_addStyle  
// @require   https://greasyfork.org/scripts/28721-mutations/code/mutations.js?version=189706  
// @icon      https://github.com/fluidicon.png  
// @updateURL https://raw.githubusercontent.com/Mottie/GitHub-userscripts/master/github-code-colors.user.js  
// @downloadURL https://raw.githubusercontent.com/Mottie/GitHub-userscripts/master/github-code-colors.user.js  
// ==/UserScript==  
(() => {  
  "use strict";
```



THE TAMPERMONKEY EDITOR



BASIC ANATOMY

```
// ==UserScript==  
// @name      Cat News Network  
// @version   0.1  
// @description Replaces images on CNN with images from www.thecatapi.com  
// @author    Jordan Neufeld <jordan@neufeldtech.com>  
// @match     http://www.cnn.com/*  
// @require   https://code.jquery.com/jquery-3.2.1.min.js  
// @updateURL https://github.com/neufeldtech/userscripts/raw/master/cat-news-netw  
// ==/UserScript==  
  
function doit() {  
  var images = document.querySelectorAll('img');  
  for (var image of images) {  
    image.src = `https://thecatapi.com/api/images/get?format=src&type=jpg&_=${Math.floor(Math.random() * 1000)}`;  
  }  
}  
doit();
```

PT 1

```
function doit() {  
    var images = document.querySelectorAll('img');  
  
    for (var image of images) {  
        image.src = "https://thecatapi.com/api/images/get?format=src&type=jpg";  
    }  
}
```

PT 2

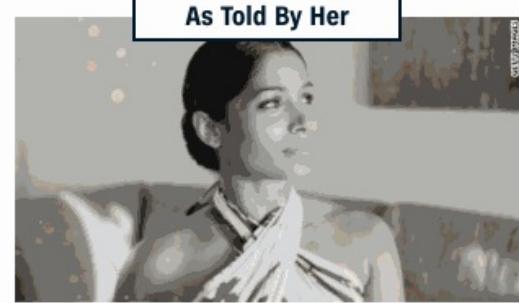
```
$(document).ready(function () {
    $('body').prepend('<button id="kittykat" style="position:fixed; top:50px; right:0px; z-index:1000">Kitties!</button>');

    $('#kittykat').click(function () {
        doit();
    });
});
```

This is too sad



Stephen Colbert returns to Emmys in Trump-fueled turnaround



Freida Pinto embraces challenge

[Emmy Rossum's surprising spirit animal](#)

[Tig Notaro is never too hard on herself](#)

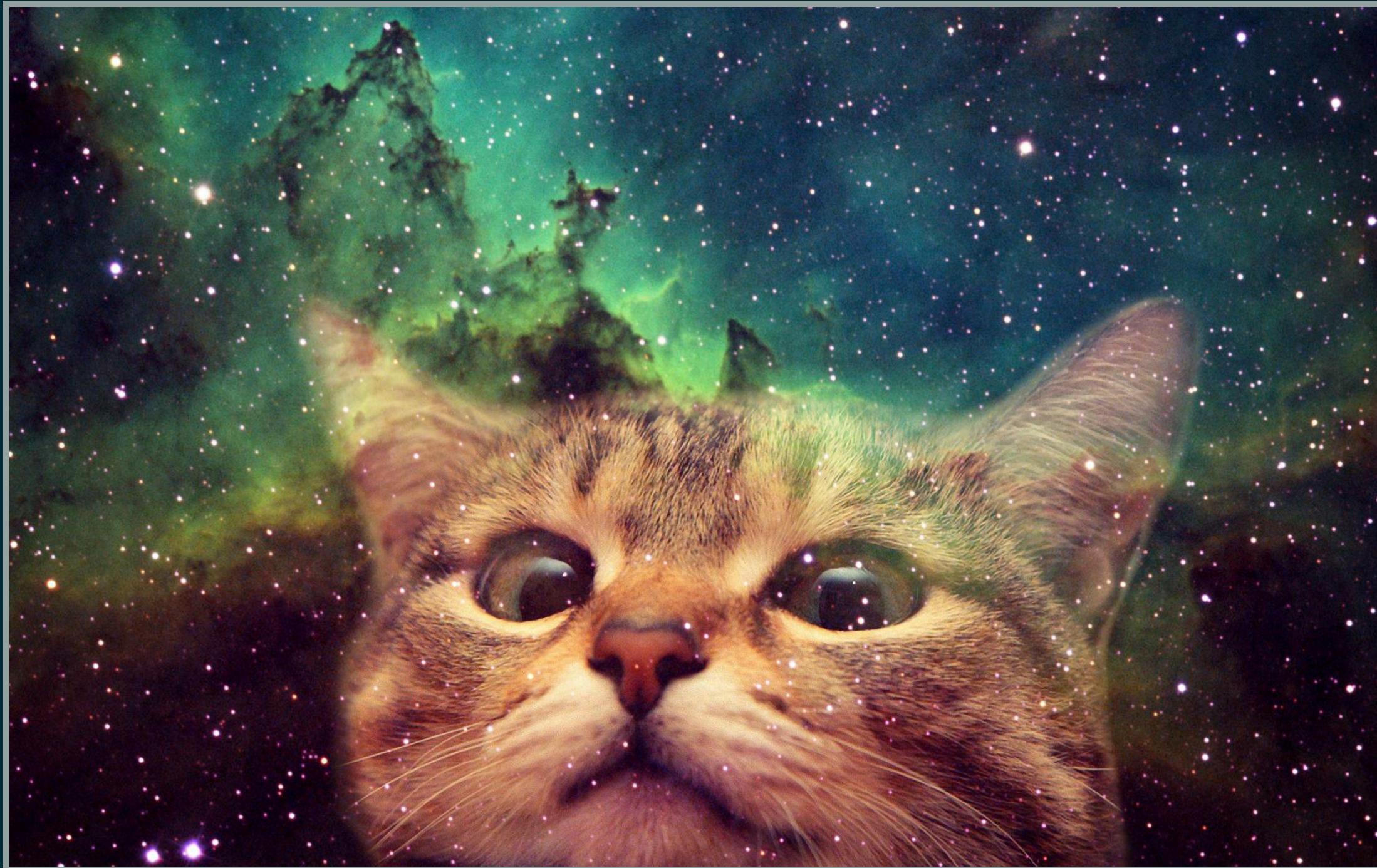
[The full story: Highlighting iconic work by women in television](#)

[Tell us: Which female TV character do you most admire and why?](#)

TOP STORIES



NOT JUST FOR MEMES



TECH SUPPORT INTAKE LIFECYCLE:

- Email comes into shared mailbox
- Classify and Create Ticket
- Reply to user professionally with a clean, formatted email

THE REPORT

*I'm receiving an HTTP 418 every time I
try to login to the site. Please help!*

CLASSIFY AND CREATE TICKET

The screenshot shows a JIRA issue creation page for a Service Request titled "Help! The site is down!". The ticket has been assigned to "TO TRIAGE" and is currently in the "Minor" priority category. It was created 1 minute ago and last updated 1 minute ago. The ticket's description includes an email from "foo@bar.com" reporting an HTTP 418 error during login.

Details

- Type: Service Request
- Status: TO TRIAGE (View Workflow)
- Priority: Minor
- Resolution: Unresolved
- Affects Version/s: None
- Fix Version/s: None
- Component/s: None
- Labels: None
- Sit Rep: Not started.
- Service Category: General Support
- Intake: IM
- Watch State: Tech Support
- Rank: 0j0e30b:

Description

Email received from foo@bar.com

I'm receiving an HTTP 418 every time I try to login to the site. Please help!

People

- Assignee: Jordan Neufeld
- Reporter: Jordan Neufeld
- Votes: 0
- Watchers: 1 Stop watching this issue

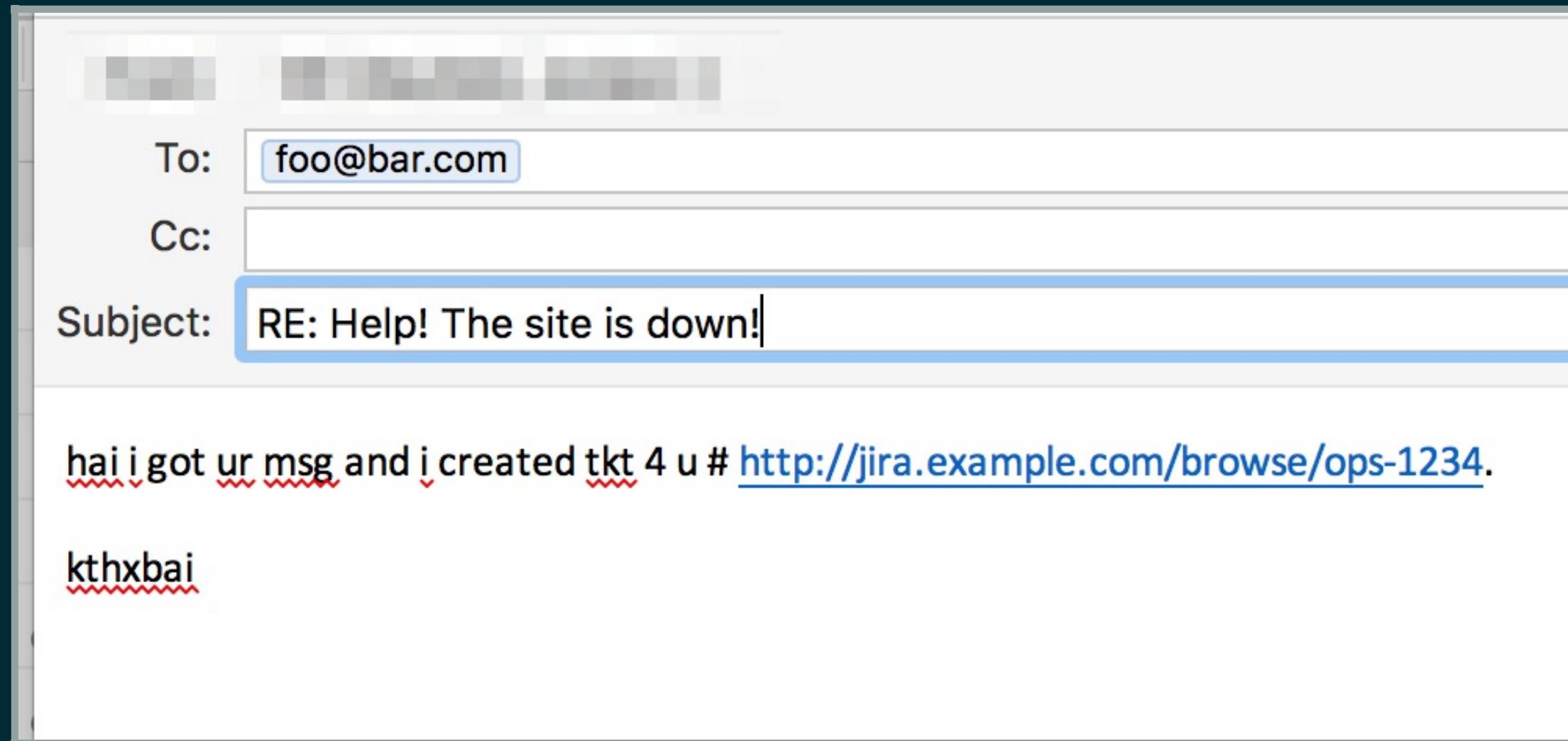
Dates

- Created: 1 minute ago
- Updated: 1 minute ago

Agile

[View on Board](#)

THE RESPONSE



THE RESPONSE (MK II)

A screenshot of a JIRA issue page for ticket OPS-21988. The page title is "Help! The site is down!". The "OPS Response Dialog" button is highlighted with a red box. The "Details" section shows the following fields:

Type:	Service Request
Status:	TO TRIAGE (View Workflow)
Priority:	Minor
Resolution:	Unresolved
Affects Version/s:	None
Fix Version/s:	None
Component/s:	None
Labels:	None
Sit Rep:	Not started.
Service Category:	General Support
Intake:	IM
Watch State:	Tech Support
Rank:	0 i0e30b:

The "People" section lists the assignee and reporter as Jordan Neufeld, with 0 votes and 1 watcher. The "Dates" section shows the issue was created and updated 4 minutes ago. The "Agile" section has a "View on Board" button. A red arrow points to the gear icon in the top right corner of the header bar.

THE RESPONSE (MK II)

A screenshot of a JIRA issue creation dialog. The dialog box is white with a thin black border and contains the following text:
Issue OPS-21988 - Help! The site is down! has been successfully created.
Now Later When? Custom Slack
I'll be starting work on your issue right away.

The dialog is overlaid on a JIRA issue page for OPS-21988. The page shows the following details:

Type:	Service Request
Status:	TO TRIAGE (View Workflow)
Priority:	Minor
Resolution:	Unresolved
Affects Version/s:	None
Fix Version/s:	None
Component/s:	None
Labels:	None
Sit Rep:	Not started.
Service Category:	General Support
Intake:	IM
Watch State:	Tech Support
Rank:	0 i0e30b:

Description
Email received from foo@bar.com

I'm receiving an HTTP 418 every time I try to login to the site. Please help!

People
Assignee: Jordan Neufeld
Reporter: Jordan Neufeld
Votes: 0
Watchers: 1 Stop watching this issue

Dates
Created: 6 minutes ago
Updated: 6 minutes ago

Agile
View on Board

THE RESPONSE (MK II)

From: [REDACTED]

To: foo@bar.com

Cc:

Subject: RE: Help! The site is down!

Thank you for contacting Northfield. A JIRA issue has been created to track the progress on your request.
I'll be starting work on your issue right away.

Issue	OPS-21988 - Help! The site is down!
Priority	Critical
Description	Email received from foo@bar.com I'm receiving an HTTP 418 every time I try to login to the site. Please help!

Jordan Neufeld | Consultant
[REDACTED]

MONITORING PAINS AND THE INCIDENT LIFECYCLE

- Not all applications are as awesome as you are



NAGIOS

CREATING THE TICKET

Northfield Operations / OPS-20263

Nagios: infra-prd-jira-internet F5VIPS_PRD_Ping Issue

9 of 9

Edit Comment Assign More Set to Waiting Set to Remediation Admin

Details

Type:	⚠ Incident	Status:	INVESTIGATION (View Workflow)
Priority:	⚡ Minor	Resolution:	Unresolved
Affects Version/s:	None	Fix Version/s:	None
Component/s:	None		
Labels:	None		
Sit Rep:	Not Started		
Level of Impact:	None		
User Impact:	Unknown		
Fan Impact:	Unknown		
Intake:	Alerts		
Watch State:	Tech Support		

Description

Nagios Alert

Host	Service	Alert
infra-prd-jira-internet	F5VIPS_PRD_Ping	CRITICAL - Host Unreachable (22)

BigPicture - Work Breakdown Structure

People

Assignee: Jordan Neufeld
Reporter: Jordan Neufeld
Votes: 0
Watchers: 1 Start watching this issue

Dates

Created: 27/Jul/17 10:27 AM
Updated: Just now

Agile

[View on Board](#)

COMMUNICATING



Jordan Neufeld 4:11 PM

@here I've created <https://jira.bleeding-edge.com/browse/OPS-1234>

for the F5 Vips Nagios Alert



ACKNOWLEDGE ALERT

Service Status Detail

F5VIPS_PRD_Ping
[infra-prd-jira-internet](#)
Servicegroups: F5VIPS_PRD



[Overview](#)     

! CRITICAL - Host Unreachable ([REDACTED].217)

Status Details

Service State:	Critical
Duration:	6m 5s
Service Stability:	Changing
Current Check:	3 of 5
Last Check:	2017-09-04 10:00:53
Next Check:	2017-09-04 10:01:52

Acknowledgements and Comments

No comments or acknowledgements.

Acknowledge Problem

Host Name *****

Service *****

Sticky Acknowledgement ?

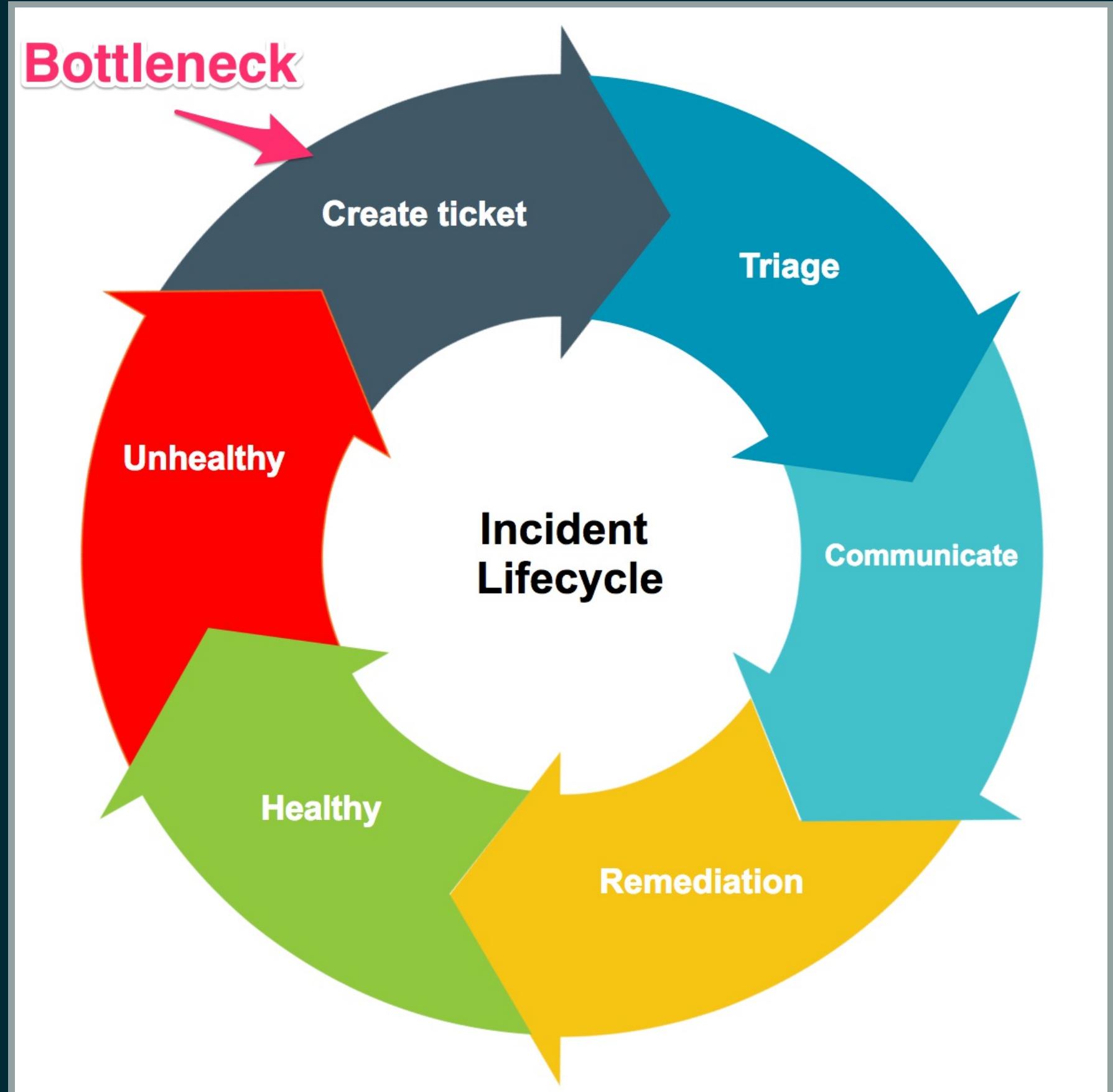
Send Notification ?

Persistent Comment ?

Author *****

Comment *****

Submit **Cancel**



ELIMINATING TOIL

GOAL: FAST AND PAIN-FREE INCIDENT TICKET CREATION

- Write a script to tail Nagios logfile
- Add code to Nagios PHP frontend
- Write client-side userscript to inject button into the Nagios frontend

THE SOLUTION

Host	Service		Status
infra-prd-jira-internet	F5VIPS_PRD_Ping		Critical

- Creates Jira ticket
- Copies the created ticket URL to clipboard
- Acknowledges Nagios Alert
- Posts notification to Slack

ACHIEVEMENT UNLOCKED



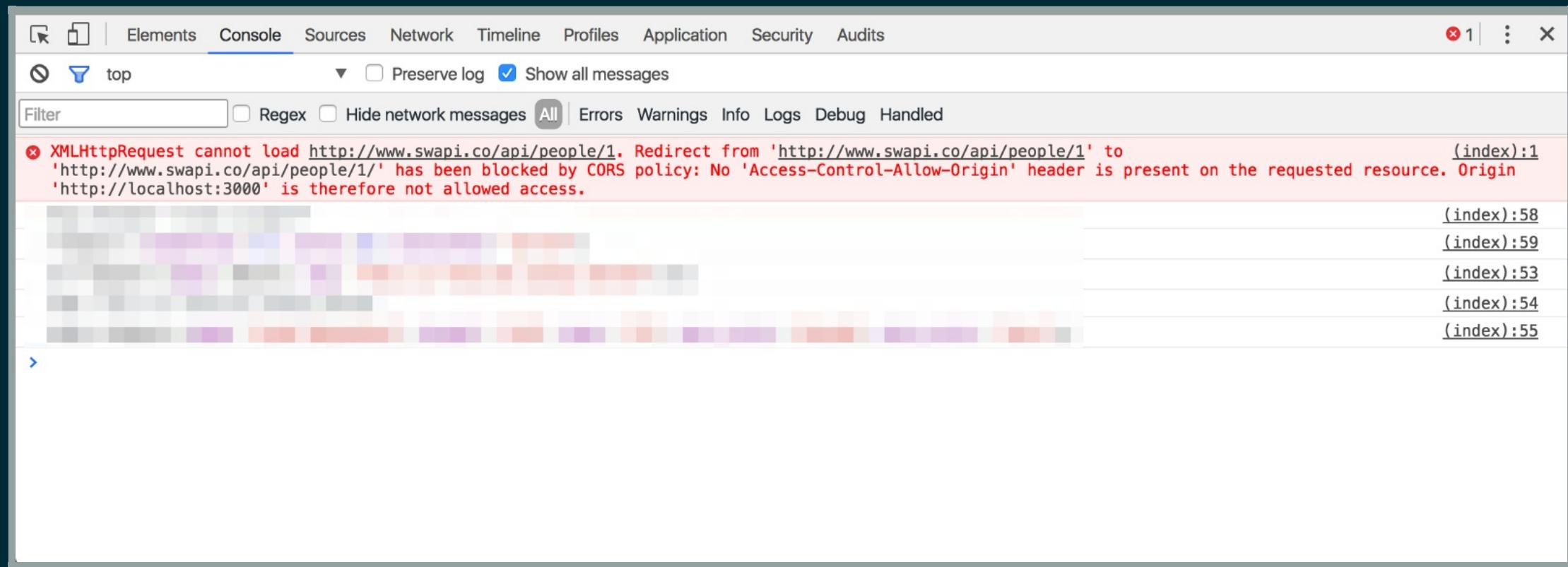
MOAR ADVANCED AWESOMENESS

- `GMSetValue()`, `GMGetValue()`
- `GM_setClipboard()`
- `GM_download()`
- `GM_xmlhttpRequest()`

GRANTS

```
// ==UserScript==  
// @grant GMSetValue  
// @grant GMGetValue  
// @grant GMSetClipboard  
// @grant GMDownload
```

SAME-ORIGIN-POLICY



xmlhttpRequest has been blocked because no Access-Control-Allow-Origin header is present on the requested resource :(

NO MORE CORS

```
// ==UserScript==  
// @grant GM_xmlhttpRequest  
// @connect google.com
```



GM_xmlhttpRequest sends browser cookies cross-domain, so you probably don't need to build in auth into your HTTP calls.

DEMO

github.com/neufeldtech/userscripts

GO FORTH AND SCRIPT!

Script ideas and examples

- greasyfork.org
- openuserjs.org

Docs

- tampermonkey.net

ACKNOWLEDGEMENT

Thanks to Mike Menzies, Tampermonkey enthusiast
and DOM hacker

QUESTIONS

- @jordanband
- jordan@neufeldtech.com

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