

EP 40: Git workflow



ALEX XU

JAN 7, 2023



162



10



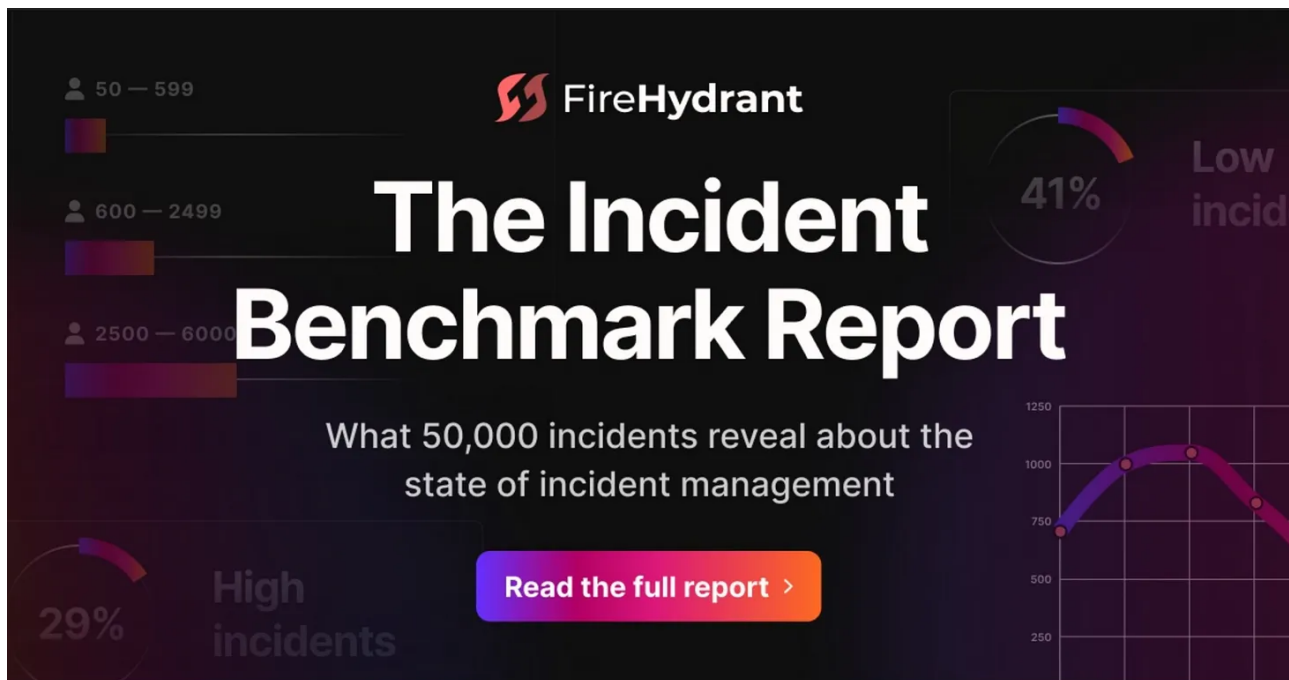
Share



This week's system design refresher:

- CAP Theorem (Youtube video)
- How Git works
- Redis use cases
- Linux commands

What 50,000 incidents reveal about the state of incident management (Sponsored)



Jump into the industry's first Incident Benchmark Report and uncover the patterns and trends that can help you level up how you manage and learn from incidents at

your organization.

Discover insights that will give you a blueprint for evaluating your incident management program, like:

- What behaviors make a notable difference in MTTR,
- What days and times incidents most often occur,
- How long the average response effort takes by severity level,
- The best responder team size, and more.

What is the CAP theorem? How useful is it to system design?

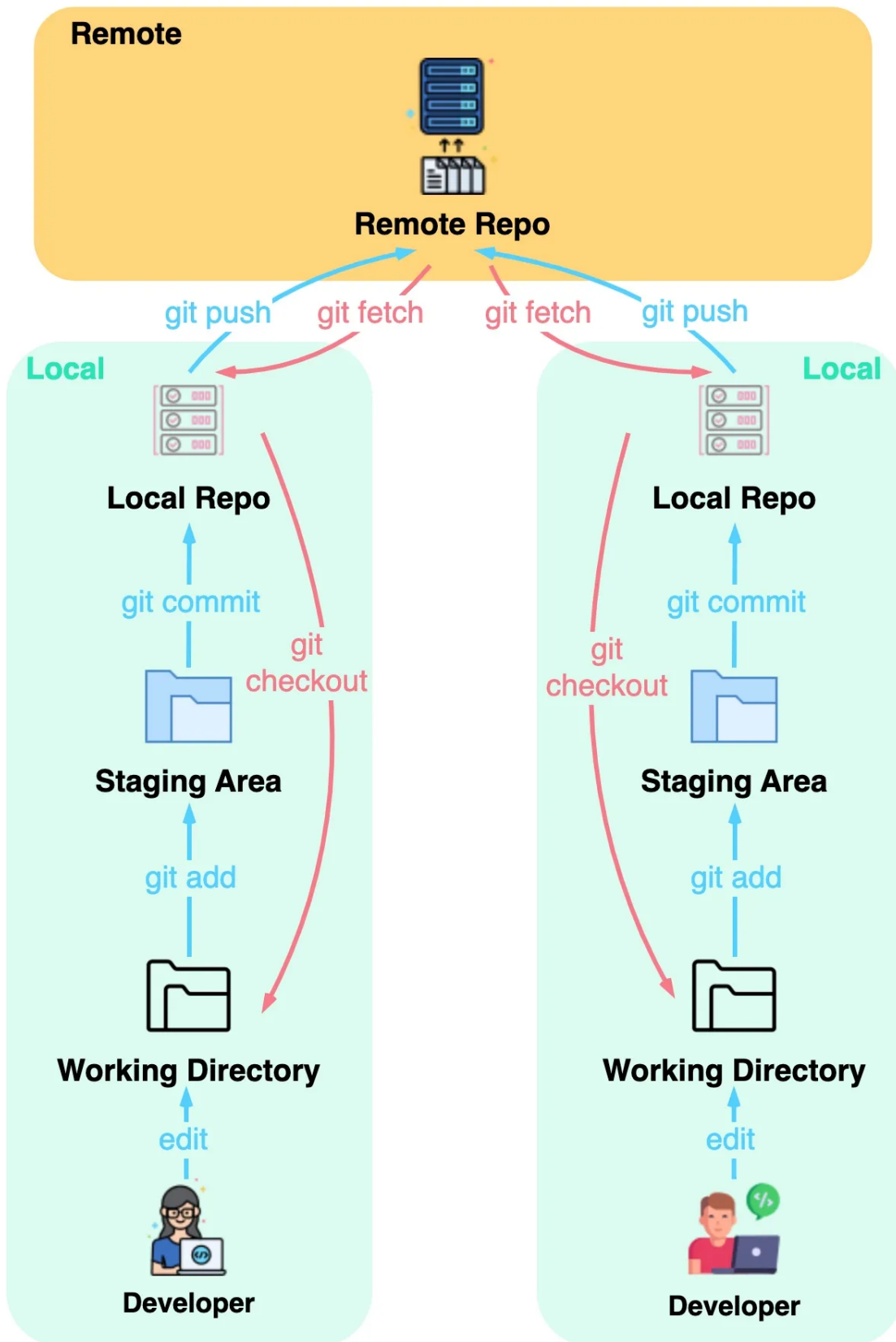


How does Git Work?

The diagram below shows the Git workflow.

How does Git Work?

 blog.bytebytego.com



Git is a distributed version control system. Every developer maintains a local copy of the main repository and edits and commits to the local copy. The commit is very fast because the operation doesn't interact with the remote repository. If the remote repository crashes, the files can be recovered from the local repositories.

Thanks for reading ByteByteGo Newsletter!
Subscribe for free to receive new posts and
support my work.

How can Redis be used?











There is more to Redis than just caching.

.

Redis can be used in a variety of scenarios as shown in the diagram.

Redis Use Cases

 blog.bytebytego.com

String		Session
		Cache
		Distributed Lock
Int		Counter
		Rate Limiter
		Global ID
Hash		Shopping Cart
Bitmap		User Retention
List		Message Queue
ZSet		Rank/Leaderboard

- **Session**

We can use Redis to share user session data among different services.

- **Cache**

We can use Redis to cache objects or pages, especially for hotspot data.

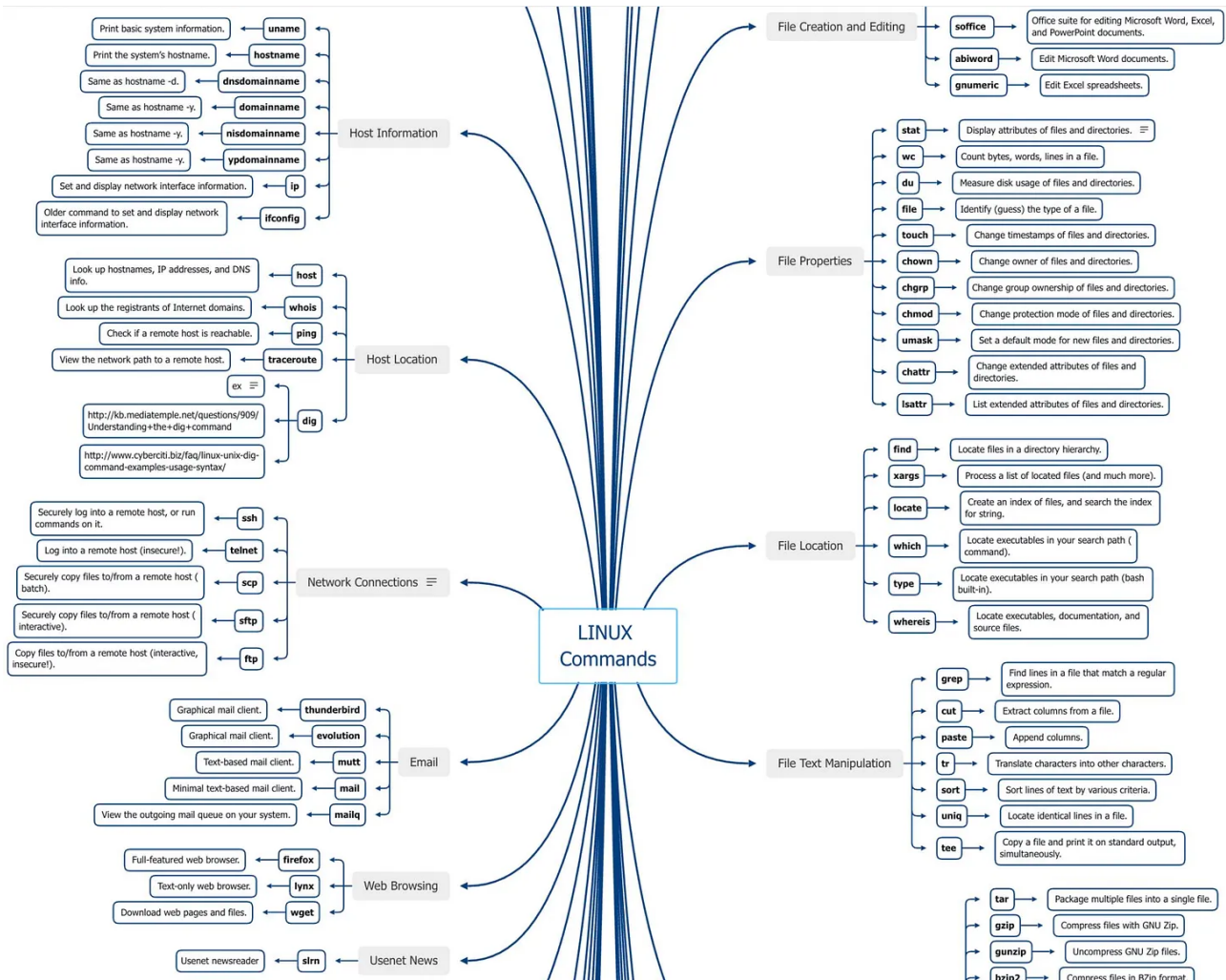
- **Distributed lock**

We can use a Redis string to acquire locks among distributed services.

- **Counter**
We can count how many likes or how many reads for articles.
- **Rate limiter**
We can apply a rate limiter for certain user IPs.
- **Global ID generator**
We can use Redis Int for global ID.
- **Shopping cart**
We can use Redis Hash to represent key-value pairs in a shopping cart.
- **Calculate user retention**
We can use Bitmap to represent the user login daily and calculate user retention.
- **Message queue**
We can use List for a message queue.
- **Ranking**
We can use ZSet to sort the articles.

Linux commands illustrated on one page!

Take a look at how many you know [here](#) :)



- Controlling processes: kill, killall, nice
- Scheduling jobs: sleep, watch, crontab
- Host location: host, whois, ping, traceroute
- Network connections: ssh, telnet, scp, ftp
- Screen output: echo, printf, seq, clear
- Viewing Processes: ps, uptime, top, free
- And many more

Featured job openings

HEIR: [Senior Software Engineer, Full Stack](#) (United States)

Thanks for reading ByteByteGo Newsletter!
Subscribe for free to receive new posts and
support my work.



162 Likes

10 Comments



Write a comment...



Yoav Jan 7 Liked by Alex Xu

Awsome! 🙌

LIKE (2) REPLY SHARE



Tobi Ajibade Jan 7 Liked by Alex Xu

Thanks for sharing this article! 👍

LIKE (1) REPLY SHARE



8 more comments...

