ACHIEVING COMPLETE AGILITY
WITH CONTINUOUS DEBUGGING AND CONTINUOUS OBSERVABILITY
JFROG AT A GLANCE (NASDAQ: FROG)

2008 Founded
600+ Employees
5,800+ Paying Customers
75% of the F100
~150 New enterprise customers monthly

~65% YoY Rev Growth
2B dependencies downloaded/m
3M enterprise developers daily
Community Champions
DevOps Unicorn

Forbes CLOUD 100 LIST
Deloitte 2019 Technology Fast 500 Winner
The 2018 SD Times 100 Award
<table>
<thead>
<tr>
<th>Category</th>
<th>Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Services</td>
<td>AMERICAN EXPRESS, Bank of America, Morgan Stanley, VISA, SOCIETE GENERALE, PAYCHEX, nab</td>
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<tr>
<td>Media &amp; Entertainment</td>
<td>BLIZZARD, FRIMA, Sky, Time Inc., The Washington Post</td>
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<tr>
<td>Internet &amp; Software</td>
<td>Google, Microsoft, JET BRAINS, Expedia, twilio, box, WIX</td>
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<tr>
<td>Technology &amp; Electronics</td>
<td>HP, QUALCOMM, SIEMENS, SONY, xerox, Collins Aerospace, RESOLUTE Building Intelligence</td>
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<tr>
<td>Retail &amp; Consumer</td>
<td>T-Mobile, Target, Under Armour, Mercedes-Benz, Toshiba, HRS, bluestem, lamoda</td>
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<tr>
<td>Education &amp; Research</td>
<td>OHIO UNIVERSITY, VANDERBILT UNIVERSITY, UNIVERSITY of WASHINGTON, OICR, TEXAS, UNIVERSITY OF MARYLAND</td>
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</tbody>
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TRUSTED BY INDUSTRY LEADERS
BARUCH SADOGRUSKY
CHIEF STICKER OFFICER
(ALSO 🧢 OF DEVELOPER ADVOCACY)

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BUT WHAT’S NEXT?

CUSTOMER
BUT WHAT’S NEXT?

THE ONLY QUALITY THAT MATTERS IS
QUALITY CUSTOMER EXPERIENCES
THE ONLY EXPERIENCE THAT MATTERS IS CUSTOMER EXPERIENCE
Me!

Tom Granot
Developer Advocate @ Lightrun

TomGranot - Twitter / GitHub

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https://lightrun.com
We are tested in production

Standups
VCS
Processes
Learning
Agility
Sleep
Sprints
Happiness
Hiring
SCRUM
Docs
Tests

Production
Getting to production fast is important
We became good at that

Release Fast or Die!
But that’s only the first half of the equation
It’s a battlefield
The people fighting the good fight
Looking inwards from first principles

Production observability toolbox

- Passive Observation
- Replication & Reproduction
- Hotfixing
- Remote Debugger
- Self-Healing
- Alerting
A definition of observability

In the world of software products and services, observability means you can **answer any questions** about what's happening on the inside of the system **just by observing** the outside of the system, without having to ship new code to answer new questions. Observability is what we need our tools to deliver now that **system complexity** is **outpacing our ability** to predict what's going to break.

https://docs.honeycomb.io/learning-about-observability/intro-to-observability/
Passive Observation
Replication & Reproduction
Hotfixing

Add Information

CI/CD Pipeline

See Information
Remote Debugger

Attach Debugger → Stop Process → Add Information → Process is Stopped → See Information
Self - Healing
Alerting
Observability can be defined as the ability to understand how your systems work on the inside without shipping new code.
Continuous Observability

If *Observability* can be defined as the ability to understand how your systems work on the inside *without shipping new code*, then *Continuous Observability* can be defined as a streamlined process for constantly asking new questions and getting immediate answers.
Continuous Debugging processes break down tough bugs by getting more and more visibility into the running service, without stopping it or degrading the customer’s experience.
Streamlined Incident resolution

Continuous Observability / Debugging Toolbox
Changing the R&D Workflow

Currently
Release a new version to enhance visibility

1. Insert logs, metrics & traces
2. CI/CD
3. Run application
4. Gain visibility

With Lightrun
Live, code-level data collection

Add logs, metrics and traces in real time
Demo
Our Application

- Git Repo
  - versioned YAML configuration files
- Spring Cloud Config Server
  - fetch configuration
- Eureka Service Discovery
  - fetch configuration
  - register + retrieve microservices IP
  - register
  - load-balanced HTTP requests
- UI + API Gateway
  - static resources
  - REST requests
  - <port 8080>
- customers-service
  - REST API
  - <random port>
- vets-service
  - REST API
  - <random port>
- visits-service
  - REST API
  - <random port>
- Spring Boot Admin Server
- Zipkin Distributed Logging Server
- Monitoring
  - distributed logs
Questions?

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