

Monitoring the easy way

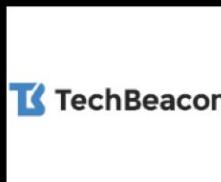
Dan Barker

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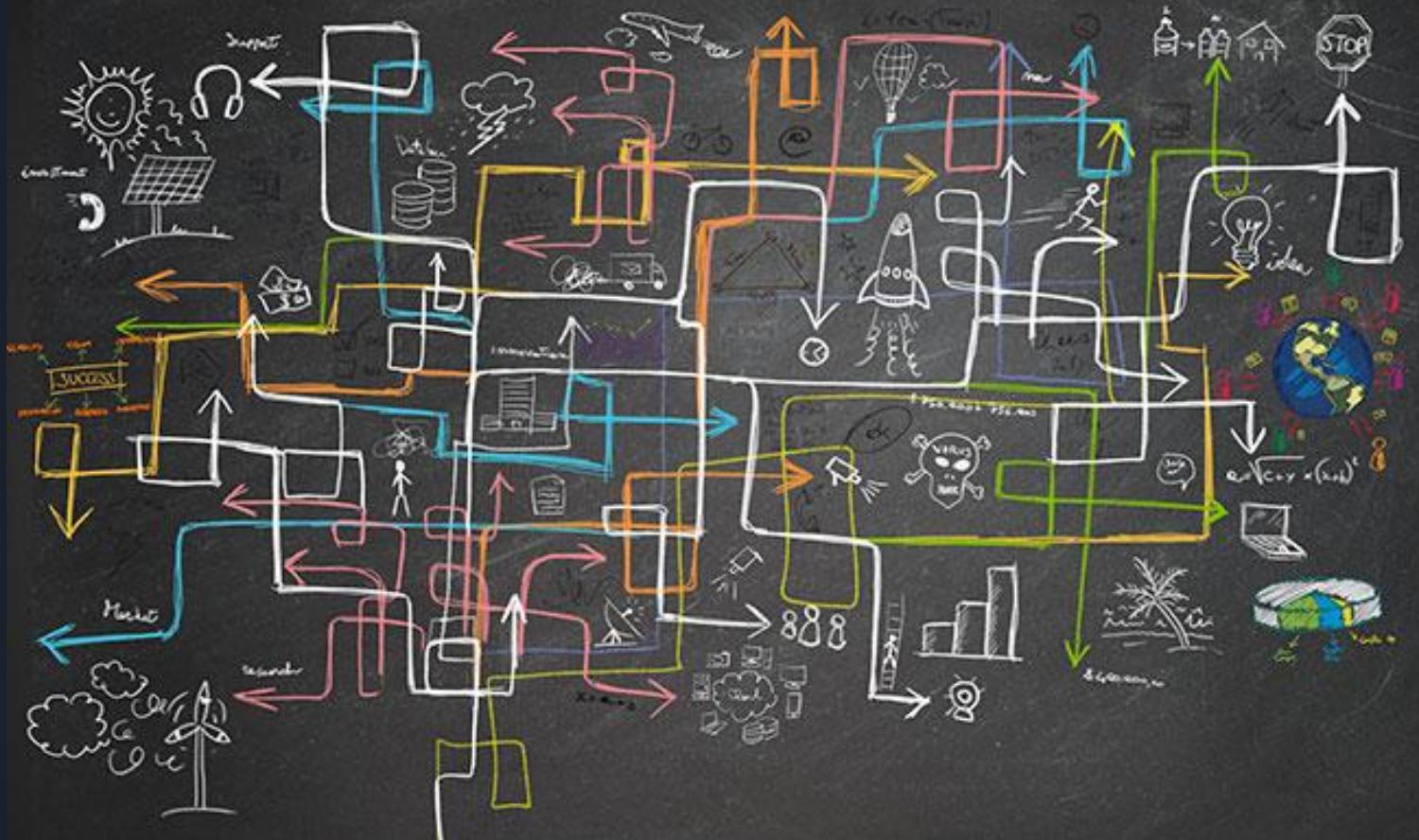


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Yeah, everything looks fine...



Oh, well that looks kinda bad.



Control Theory

- Observability
 - system state determined by outputs of the system
- Controllability
 - system state determined by inputs to the system



Observability tools

- Metrics aggregation
- Log aggregation
- Alerting and visualizations
- Distributed Tracing



Metrics Aggregation

- Types of metrics
 - Counters
 - Gauges
 - Summaries
 - Histograms
- Tools
 - Prometheus
 - Graphite
 - InfluxDB
 - OpenTSDB
- Push vs. Pull
- OpenMetrics



Log Aggregation

- Tools
 - ELK
 - Graylog
 - FluentD
- Do's
 - include a timestamp
 - format in JSON
 - log all application errors
 - turn on logging
 - write messages in a human-readable form
 - MAYBE log warnings
- Don'ts
 - log informational data in production
 - log anything a human can't read or react to
 - log insignificant events
 - print PII



Alerting and visualization

- Alerts
 - Don't send alerts when no action can be taken
 - No such thing as an informational alert!!!
- Visualizations
 - Bring instant knowledge and understanding
 - "A joke that works is complete knowledge in a nanosecond." – Steve Martin
- Tools
 - Prometheus AlertManager
 - Bosun
 - Cabot
 - StatsAgg
 - Grafana
 - Vizceral
 - Flame graphs



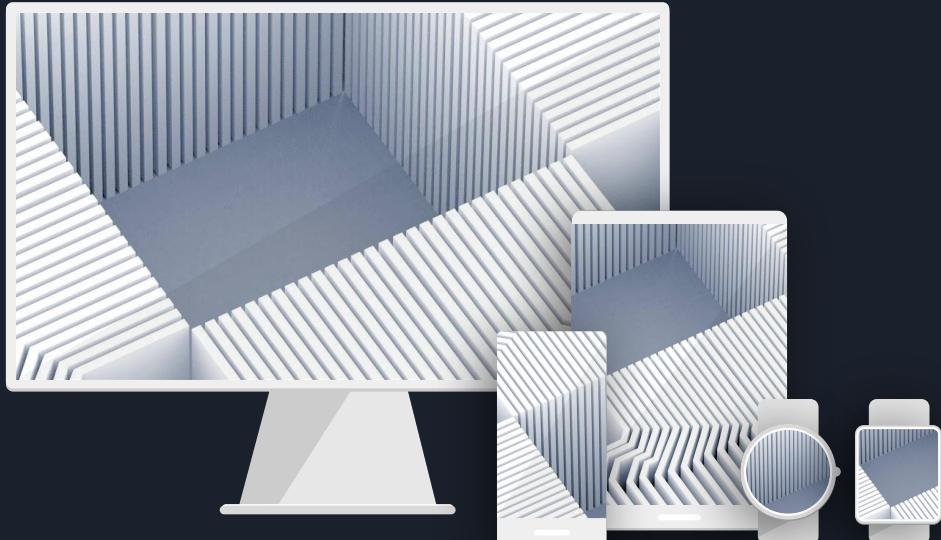
Distributed tracing

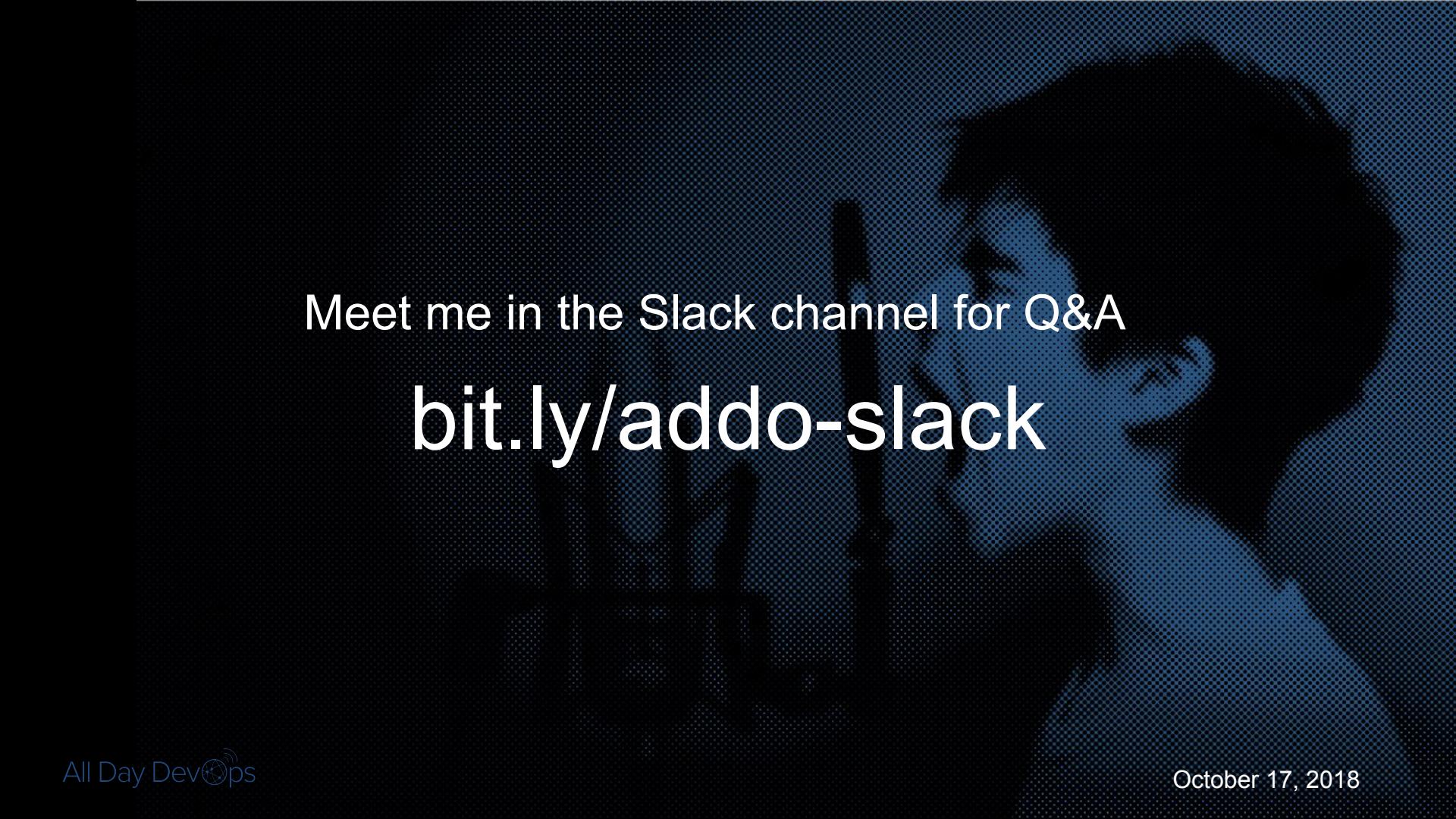
- Track requests throughout a system
- Tools
 - Zipkin
 - Jaeger
 - AppDash
- Open Standards
 - OpenTracing
 - OpenCensus

monitoring.danbarker.codes

Thank you!

Dan Barker
danbarker.codes
dan@danbarker.codes
naic.org
drbarker@naic.org





Meet me in the Slack channel for Q&A

bit.ly/addo-slack