Best Practices for Scalable CI/CD

Kristina Heidinger
Senior Product Manager, GitHub Actions

ttract
engage
minate
A always
U use
A acronyms
T to
S simplify
C complex
I ideas

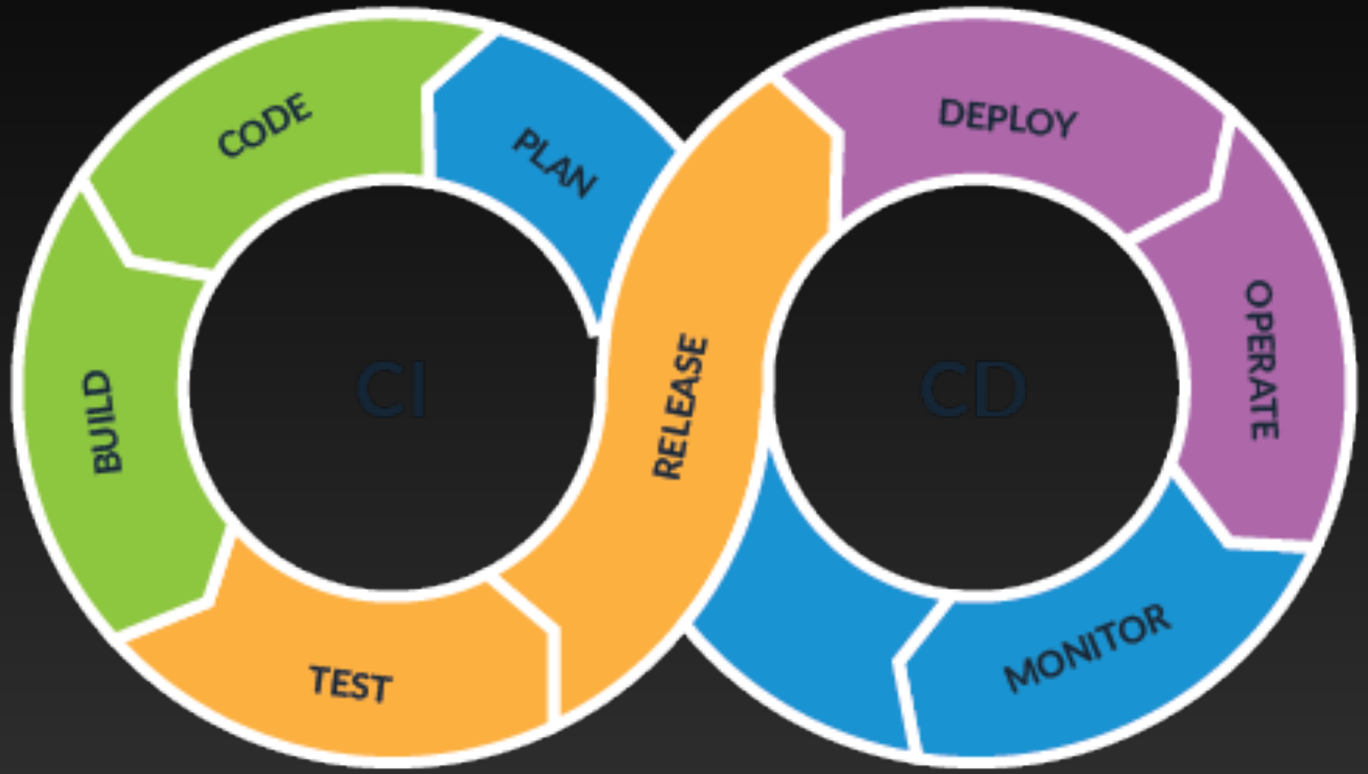
Windows 98 CD-ROM
Microsoft Windows 98
Interactive CD Sampler
Windows 98 CD-ROM
This CD-ROM contains a newer version of Windows than the one you are presently using.
Would you like to upgrade your computer to this new version of Windows 98 now?
Yes
No
Cancel
Add/Remove Software

SCRUM!

Collaboration

Automation

Measurement


CODE
PLAN
BUILD
CI
TEST
RELEASE
DEPLOY
OPERATE
CD
MONITOR

Only build once

Repeatable and reliable process for deploying software

Keep everything in version control

Fail fast

Continuous automation

Clean pre-production environments

If it hurts, do it more frequently

Merge code to the main branch frequently

Shift left

Continuous monitoring

Continuous improvement

Only build once

Keep everything in version control

Fail fast

Continuous automation

Repeatable and reliable process for deploying software

Clean pre-production environments

If it hurts, do it more frequently

Merge code to the main branch frequently

Continuous monitoring

Continuous improvement

Elapsed Time
0:23
Punches
26
Work Rate
Speed MPH
13.8
Power
14.3
Round

Lead Time for Change

Deployment Frequency

Mean Time to Recover

Change Failure Rate

MARNENG
THU 122
CITY BUSES STAY ON YELLOW LANE
CITY BUSES STAY ON YELLOW LANE

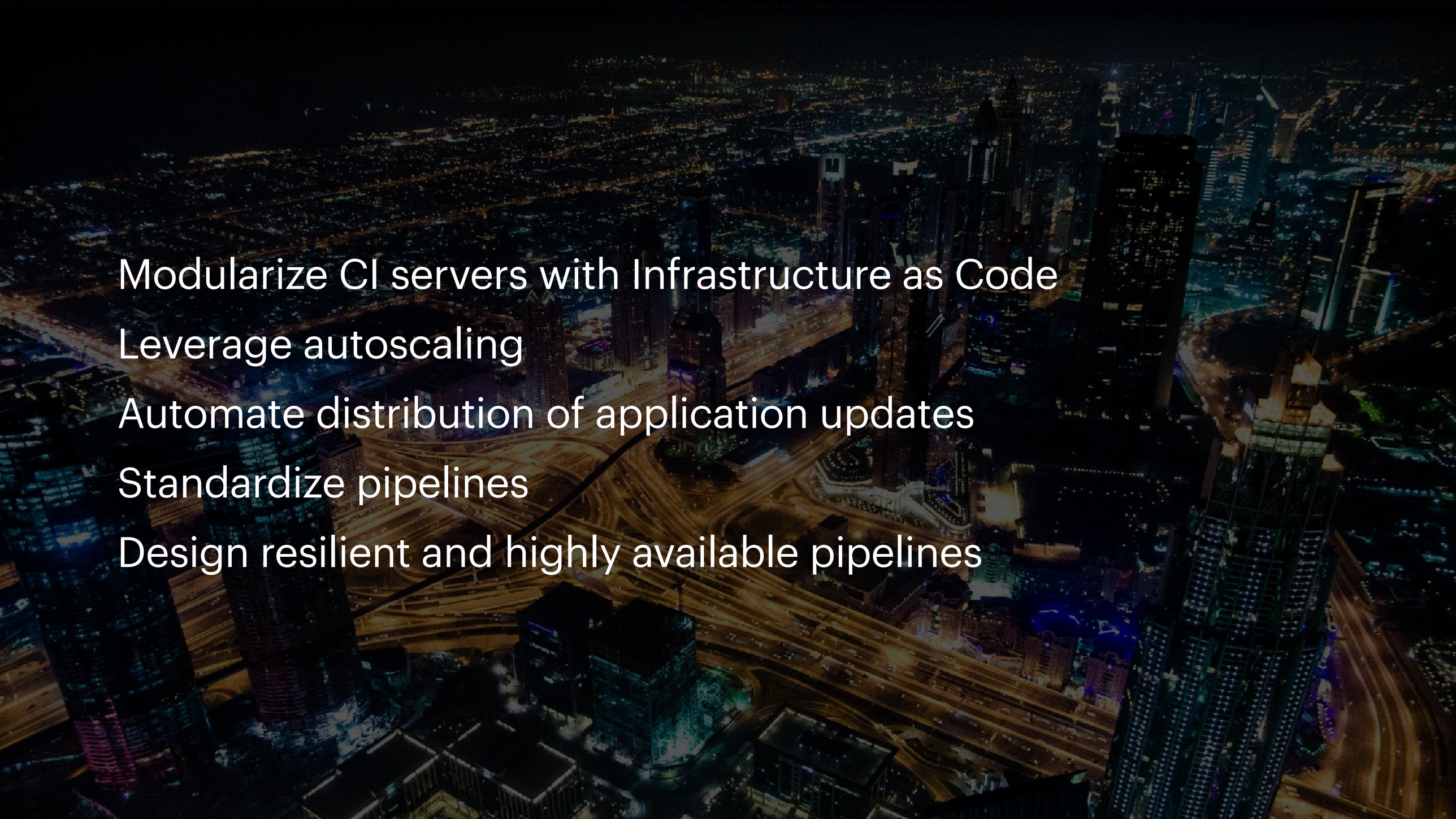
Modularize CI servers with Infrastructure as Code

Leverage autoscaling

Automate distribution of application updates

Standardize pipelines

Design resilient and highly available pipelines


Modularize CI servers with Infrastructure as Code
Leverage autoscaling
Automate distribution of application updates
Standardize pipelines
Design resilient and highly available pipelines