DevOps

Wednesday, July 11, 2018

Nitin Madhok | Systems Architect



Who am I? Why am I here?

- Working as Systems Architect at Clemson University
- Actively involved with Open Source projects
 - SaltStack
 - OpenStack
 - GitLab
- Speaker at conferences:
 - SaltConf15, SaltConf16 (Keynote)
 - OpenStack Summit 2015 (Tokyo, Japan)
 - openSUSE Conference 2016 (Nuremberg, Germany)
- Certified and experienced using DevOps Tools









What is DevOps?



DevOps is a set of practices intended to reduce the time between committing a change to a system and the change being placed into normal production, while ensuring high quality

- Bass, Weber, and Zhu



Definition and history



- Term first introduced in 2008 by Andrew Shafer & Patrick Debois
- Has been used in multiple contexts
 - Culture?
 - Role?
 - Tool?
- Practice/Methodology aiming at unifying software development (Dev) and operations (Ops)
- Not as simple as combining Dev and Ops



Goals

- Continuous Development
- Continuous Testing
- Continuous Integration
- Continuous Deployment
- Continuous Monitoring





What isn't DevOps?



DevOps is NOT ...



- Single term or a single process
- Developers trying to take over operations
- Just the use of CI/CD tools
- Just a culture
- Just a role/job title
- Just Dev and Ops



Significance of DevOps



Why DevOps?



- Shorter and Faster Development cycles
- Lesser deployment failures, rollbacks, time to recovery
- Improved collaboration
- Increased productivity and efficiency
- Reduced Cost

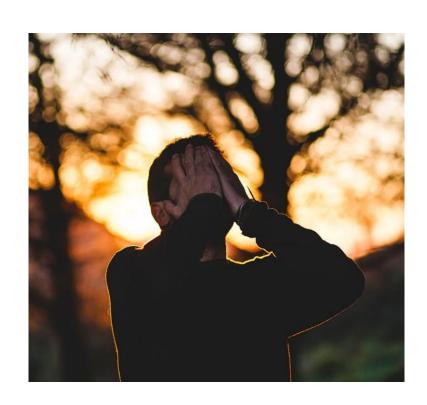


DevOps: Challenge:





Challenges



- Culture
- Automation
- Legacy systems
- App complexity
- Skillset & Tools





Questions?

► Email: nmadhok@clemson.edu

► LinkedIn: https://linkedin.com/in/nitinmadhok

Twitter: https://twitter.com/_nmadhok_

► GitHub: https://github.com/nmadhok

► IRC: nmadhok



"Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Networking and Information Technology Research and Development Program."

The Networking and Information Technology Research and Development (NITRD) Program

Mailing Address: NCO/NITRD, 2415 Eisenhower Avenue, Alexandria, VA 22314

Physical Address: 490 L'Enfant Plaza SW, Suite 8001, Washington, DC 20024, USA Tel: 202-459-9674,

Fax: 202-459-9673, Email: nco@nitrd.gov, Website: https://www.nitrd.gov

