



Bit Blog

## PERSPECTIVE AND INSIGHTS

A different way of thinking that delivers better results for our clients

# Comparing DevOps VS Traditional SDLC

By Sunil Karke, August 24, 2015

📌 Continuous Delivery | DevOps | SDLC | Software Development |



([//cdn.bitwiseglobal.com/media/2015/08/Comparing-DevOps.jpg](http://cdn.bitwiseglobal.com/media/2015/08/Comparing-DevOps.jpg)) *Efficiency is doing the thing right. Effectiveness is doing the right thing.* – **PETER DRUCKER**

It seems there is a new buzzword coined every week in the IT industry. It may be fun asking average people on the street “What is DevOps” – “US Military operation?!” or “Some spy movie?” or “a Robot?” However, when

the term “DevOps” was introduced to IT people, they said, “we have been doing this for years – code merging, configuration management, release management, deployment using automated tools.” What’s new in it? Is it a marketing gimmick of sorts? Is it a sledgehammer to kill a fly? Let’s park these questions for now. In this post we’re comparing DevOps methodology versus traditional Software Development Lifecycle (SDLC).

## Traditional Software Development Life Cycle Challenges

Requirements to Production deployment of any business need or story (in Extreme programming) is an interesting journey with a lot of human intervention at different milestones. Predicting where things may go wrong even when risks are identified and mitigated is challenging for any software project. The basic thinking is to code; once ready after system and integration testing is released to the Operations team for install. Things can be fine and dandy if there is utmost synchronization between the Development team and Operations team but more often there are challenges:

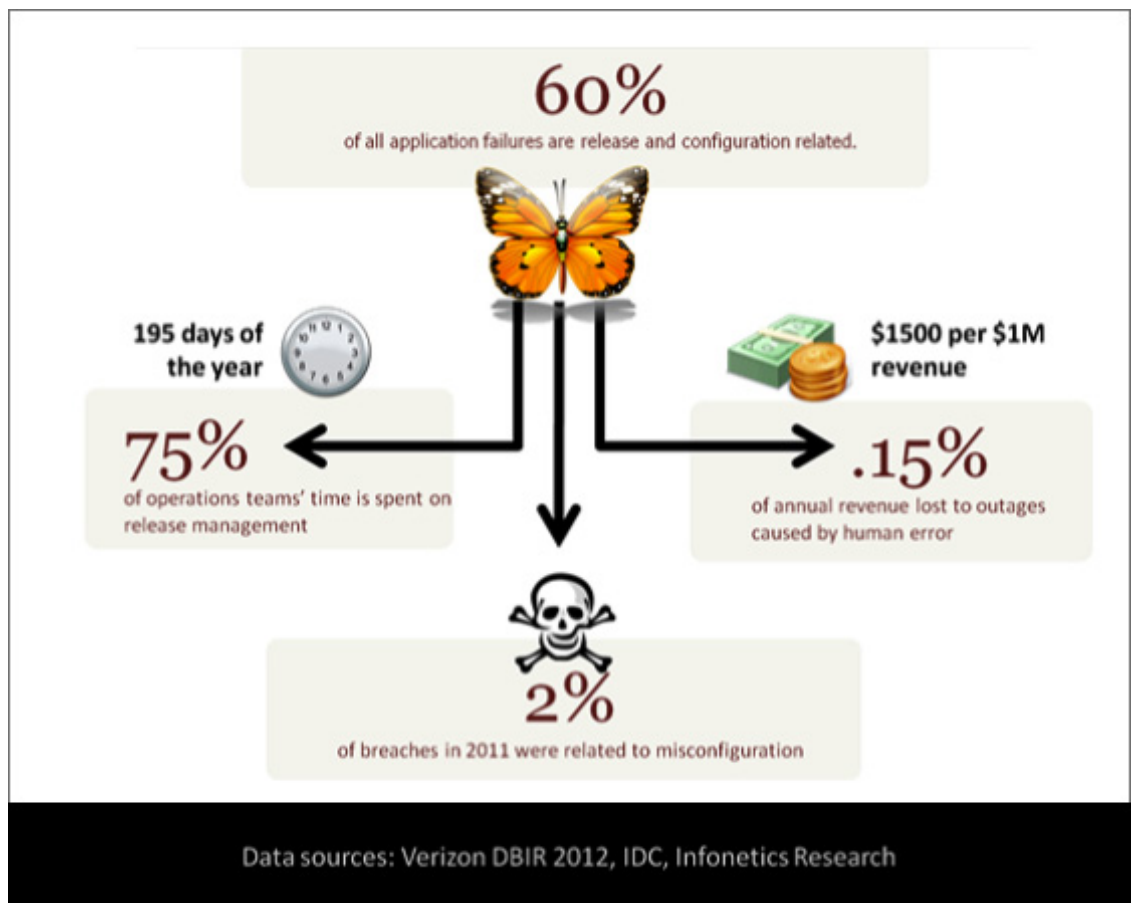
Operations team deploys it but with a possibility that whatever was working in Development environment does not work in Production environment. The response from the development team usually is, “It works just fine in development...” The reason for the failure is that these two environments are different or are not periodically synchronised.

New development tools make coding faster but sometimes the operations team is not able to cope with frequent changes and releases.

Production servers may need some tweaking or fine tuning at the database or OS level. If there is lack of skill or expertise then deployment is at a risk.

Developers usually do not have access to Production servers to check how the application is behaving so there is a need of feedback from end users, which, is not often received by the Developers for obvious reasons. In some instances there are no clear instructions / details of deployment. Ops team have to figure out some things based on their experience / skill – poor transition.

With traditional SDLC approaches, companies may regret the complexity to bridge the gap between Developers and Operations team; production systems are at stake no matter what. Such challenges have greater impact on the cost, schedule and reputation of the organization.



(<http://cdn.bitwiseglobal.com/media/2015/08/dbr-itc2012.jpg>)

To help illustrate these complexities, Lori MacVittie talks about the butterfly effect ([http://en.wikipedia.org/wiki/Butterfly\\_effect](http://en.wikipedia.org/wiki/Butterfly_effect)) to demonstrate effects of not addressing challenges in terms of time,

money and risk (<https://devcentral.f5.com/articles/1024-words-the-devops-butterfly-effect#.Uu-DornxvIU>).

## DevOps Provides a Solution to Traditional software development

These challenges seemed like they would continue to remain part of the development lifecycle until Patrick DeBios decided to take these up. This initiative formed basis of DevOps – a term coined by combining Dev(elopers) and Op(erations)s.

### DevOps

is a philosophy to bring in cultural change aiming to deliver functionalities faster at a higher rate of quality. It is a way to bridge the gap between Developers and Operations team for frequent deployments. It could be called “Near Real Time” development or “Elastic” deployment cycle because you can automatically deploy as soon as a change is committed by the developers. Human intervention is minimized wherever possible. Automation throughout the development life cycle, continuous feedback and process improvement is the key for adopting DevOps.

The following are some of the DevOps principles:

- Create production like systems for development and testing environment

- Deployments need to be iterative and frequent. Ensure a reliable and repeatable process

- Continuously monitor and validate operational quality characteristics

- Amplify feedback loop

Automation tools are helping companies adopt DevOps. These tools include Jenkins, GitHub, Chef, Puppet, SaltStack, New Relic, Nagios, Ganglia, Munin, Splunk, Rundeck, to name a few.

Coming back to our parked questions: DevOps – What’s new in it? Is it a marketing gimmick? Is it a sledgehammer to kill a fly?

Typically we have planned releases which are deployed through a tool set – some may be automated but you need to enter commands to invoke it. A tool by itself would not mean anything but the utilization of it and Integration of all automated tools right from check-in to deployment is offered by DevOps.

Frequent or continuous deployments (e.g. 10 per day) need discipline at all levels and commitment to make it happen. You may also be having war room meetings between developers and operations team prior to deployment. What if the development and operations teams are geographically dispersed (i.e. thousands of miles away and there is challenge of time difference to conduct phone meetings). Operations team agenda is to keep the system down to a minimum time and in this process some critical errors are not resolved in timely manner or are ignored. DevOps once in place can take all these factors out and make deployment journey as smooth as silk.

## Conclusion

Using individual automated tools in a sporadic manner is trying to bring in efficiency (i.e. you are doing things right but DevOps brings in effectiveness ensuring you are doing right things and cannot be sniffed at). Before you jump on the DevOps bandwagon there is lot of thinking, planning and work goes into it. There are challenges right out of the gates – from choosing the right tool to change management, but the payoff in the long run may enable you to scale to heights.

**Sunil Karke**

*Sunil has extensive experience in managing all facets of Software Development Lifecycle and is certified PMP (PMI) Professional. Being part of Delivery Excellence Group within Bitwise, he shares his experience and knowledge of handling large projects and programs to come up with innovative solutions and helps implement best practices in the project delivery model.*

**← Previous - Topic**

**(<https://www.bitwiseglobal.com/blogs/making-the-case-for-agile-planning/>)**

Making The Case For Agile Planning

(<https://www.bitwiseglobal.com/blogs/making-the-case-for-agile-planning/>)

Leave a Comment

**Next - Topic**

**(<https://www.bitwiseglobal.com/blogs/the-science-of-agile-development-2/>) →**

The Science Of Agile Development

(<https://www.bitwiseglobal.com/blogs/the-science-of-agile-development-2/>)

Your email address will not be published. Required fields are marked \*

Name \*

Email \*

Website \*

Comment \*

^  
TOP

**POST COMMENT**

## SIGN UP FOR BITWISE NEWS

Your Email

**Subscribe**

## Locations

### North America Headquarters

1515 Woodfield Rd,  
Suite 740,  
Schaumburg, IL 60173,  
Phone: 847.969.1500

### Global Headquarters

Bitwise World  
Off Int'l Convention Centre,  
Senapati Bapat Road,  
Pune - 411016  
Phone: +91-20-40102000

---

## Recent Tweets

↑  
TOP

Learn how to modernize PL/SQL code with automated conversion to **#Talend** (<https://twitter.com/hashtag/Talend?src=hash>)! Watch the recorded webinar here: <https://goo.gl/CE1To4> (<https://t.co/2cDfVOlwQX>) **#DataIntegration** (<https://twitter.com/hashtag/DataIntegration?src=hash>) [pic.twitter.com/RjIFWwNGiv](https://t.co/RjIFWwNGiv) (<https://t.co/RjIFWwNGiv>)

---

Facing challenges while migrating **#PLSQL** (<https://twitter.com/hashtag/PLSQL?src=hash>) to a modern **#DataIntegration** (<https://twitter.com/hashtag/DataIntegration?src=hash>) platform? Learn how you can cope with all the migration challenges! <https://goo.gl/XcoHbH> (<https://t.co/o/eTJaJUloWx>) [pic.twitter.com/iatvdz7ToY](https://t.co/iatvdz7ToY) (<https://t.co/iatvdz7ToY>)

---

## Site Map

**Contact us** (<https://www.bitwiseglobal.com/contact/>)

---

**Bit Blog** (<https://www.bitwiseglobal.com/bit-blogs/>)

---

**Innovations** (<https://www.bitwiseglobal.com/innovations/>)

---

**Services** (<https://www.bitwiseglobal.com/services/>)

---

**About us** (<https://www.bitwiseglobal.com/about/>)

---

**Insights** (<https://www.bitwiseglobal.com/insights/>)

---

**Career** (<https://www.bitwiseglobal.com/career/>)

---

**Events** (<https://www.bitwiseglobal.com/event-list/>)

---

**News** (<https://www.bitwiseglobal.com/news-list/>)

---

## Stay In Touch

Stay in touch on latest news from Bitwise



\*First Name

\*Last Name

\*Email

Your email will only be used for Bitwise related communications.

**SUBSCRIBE**



(<https://www.bitwiseglobal.com>)

(<https://www.facebook.com/bitwiseglobal>)

([https://twitter.com/BitWise\\_Updates](https://twitter.com/BitWise_Updates))

(<https://www.linkedin.com/company/bitwise-inc>)

(<https://plus.google.com/+BitwiseglobalOnline/>)

(<https://www.youtube.com/channel/UCzrfFhBffJ8KQfmiW3vOCNw>)