

DevOps: Breakdown the Development-Operations Hurdle Barrier

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Abstract: *There are numerous conflicts among development team and operations team when they are developing and delivering important software to clientele in software development process. DevOps, as a significant rising concept, is proposed to surmount the conflict between development team and operations team. Many companies and organizations have a tendency to adapt DevOps. The DevOps drive commenced around 2007 when the software development and IT operations societies elevated apprehensions about the traditional software development model, where developers who engraved code functioned apart from operations who deployed and maintained the code. The term DevOps, a combination of the arguments development and operations, imitates the process of assimilating these disciplines into one, continuous process. DevOps as a relatively rising concept have requirement of understanding the possible challenges and mitigation strategies.*

Keywords: DevOps, Challenge, Systematic Literature review

REFERENCES

- [1]. Michael Hüttermann, "Introduction," in DevOps for Developers, 2012 edition, Berkeley, USA, Apress, September 2012.
- [2]. M. Loukides, What is DevOps?, 1 edition. O'Reilly Media, 2012.
- [3]. Floris, Erich; Chintan, Amrit; Maya, Daneva (2014-12-10). "A Mapping Study on Cooperation between Information System Development and Operations"
- [4]. Michael Hüttermann, "Introducing DevOps," in DevOps for Developers, 2012 edition, Berkeley, USA, Apress, September 2012, pp. 23–23.
- [5]. Ambler, Scott W. (12 February 2014). "We need more Agile IT Now!". Dr. Dobb's The world of software Development (San Francisco: UBM).
- [6]. J. Smeds, K. Nybom, and I. Porres, "DevOps: A Definition and Perceived Adoption Impediments," in Agile Processes, in Software Engineering, and Extreme Programming, C. Lassenius, T. Dingsøyr, and M. Paasivaara, Eds. Springer International Publishing, 2015, pp. 166–177.
- [7]. F. Erich, C. Amrit, and M. Daneva, "Report: Devops literature review," University of Twente, Tech. Rep., 2014.
- [8]. Michael Hüttermann, "Beginning DevOps for Developers," in DevOps for Developers, 2012 edition, Berkeley, USA, Apress, September 2012, pp. 4–13.
- [9]. C. Wohlin and A. Aurum, "Towards a decisionmaking structure for selecting a research design in empirical software engineering," Empirical Software Engineering, vol. 20, no. 6, pp. 1427–1455, 2015.
- [10]. B. Kitchenham and S. Charters, "Guidelines for performing systematic literature reviews in software engineering," in Technical report, Ver. 2.3 EBSE Technical Report. EBSE, 2007.
- [11]. W. Gottesheim, "Challenges, Benefits and Best Practices of Performance Focused DevOps," in Proceedings of the 4th International Workshop on Large-Scale Testing, New York, NY, USA, 2015, pp. 3–3.
- [12]. Lisa M. Given, SAGE Encyclopedia of Qualitative Research Methods, USA: SAGE, 2008.

- [13]. "Global Study by CA Technologies Finds DevOps is a Key Contributor to the Bottom Line -CA Technologies." [Online]. Available: <http://www.ca.com/us/company/newsroom/pressreleases/2015/global-study-by-ca-technologiesfinds-devops-is-a-key-contributor-to-the-bottomline.html>. [Accessed: 02-Jan-2017].
- [14]. B. Stackpole, "5 DISRUPTORS to Keep on Your Radar. (cover story)," Computerworld Digital Magazine, pp. 19–22, Dec. 2015.
- [15]. A. Pinsonneault and K. Kraemer, "Survey research methodology in management information systems: an assessment," Journal of management information systems, vol. 10, no. 2, pp. 75–105, 1993.
- [16]. C. B. Seaman, "Qualitative methods iinn empirical studies of software engineering," IEEE Transactions on Software Engineering, vol. 25, no. 4, pp. 557–572, Jul. 1999.
- [17]. C. Bennett, S. Khangura, J. C. Brehaut, I. D. Graham, D. Moher, B. K. Potter, and J. M. Grimshaw, "Reporting guidelines for survey research: an analysis of published guidance and reporting practices," PLoS Med, vol. 8, no. 8, p. e1001069, 2011.
- [18]. I. Weber, S. Nepal, and L. Zhu, "Developing Dependable and Secure Cloud Applications," IEEE Internet Computing, vol. 20, no. 3, pp. 74–79, 2016.
- [19]. M. Olszewska and M. Waldén, "DevOps meets formal modelling in high-criticality complex systems," in Proceedings of the 1st International Workshop on Quality-Aware DevOps, 2015, pp. 7–12.
- [20]. D. Edwards. The History Of DevOps. <http://itrevolution.com/the-history-of-devops/>, September 17, 2012. [Online; accessed: 11-9-2016].
- [21]. B. S. Farroha and D. L. Farroha, "A Framework for Managing Mission Needs, Compliance, and Trust in the DevOps Environment," in 2014 IEEE Military Communications Conference, 2014, pp. 288–293.
- [22]. J. Wettinger, V. Andrikopoulos, and F. Leymann, "Automated capturing and systematic usage of devops knowledge for cloud applications," in Cloud Engineering (IC2E), 2015 IEEE International Conference on, 2015, pp. 60–65.