

REFERENCES

- [1] R. Arnoff, "Global Fraud Loss Survey 2013 by Communications Fraud Control Association," 2013. [Online]. Available: http://www.cvidya.com/media/62059/global-fraud_loss_survey2013.pdf. [Accessed 4 Jun 2015].
- [2] Wikipedia, "Call detail record," [Online]. Available: http://en.wikipedia.org/wiki/Call_detail_record. [Accessed 5 Jun 2015].
- [3] H. Grosser, P. Britos and R. García-Martínez, "Detecting fraud in mobile telephony using neural networks," in *Springer-Innovations in Applied Artificial Intelligence Lecture Notes in Computer Science*, vol. 3533, 2005, pp. 613-615.
- [4] A. H. Elmi, S. Ibrahim, and R. Sallehuddin, "Detecting SIM Box fraud using neural network," *IT Convergence and Security-2012. Springer*, vol. 215, pp. 575-582, 2013.
- [5] R. Sallehuddin, S. Ibrahim, A. M. Zain, and A. H. Elmi, "Classification of SIMbox fraud detection using support vector machine and artificial neural network," *International Journal of Innovative Computing, Universiti Teknologi Malaysia*, vol. 4, no. 2, 2014.
- [6] I. Murynets, M. Zabaranin, R. P. Jover, and A. Panagia, "Analysis and detection of SIMbox fraud in mobility networks," in *Proc. IEEE INFOCOM '14*, pp. 1519-1526, Apr. 2014.
- [7] J. Shawe-Taylor, K. Howker and P. Burge, "Detection of Fraud in Mobile Telecommunications," *Information Security Technical Report*, vol. 4, no. 1, pp. 16-28, 1999.
- [8] LATRO Services, "Advanced Analytics Solution for Telecom Fraud - VERSALYTICS," [Online]. Available: <http://www.latroservices.com/products/versalytics-analytics-solution-for-bypass-fraud/>. [Accessed 21 December 2017].
- [9] E. Okutoyi, "SIM Box Fraud - New Headache for Africa's Mobile Operators," 2012. [Online]. Available: <http://www.humanipo.com/news/142/sim-box-fraud-new-headache-for-africas-mobile-operators/>. [Accessed 13 Jun 2015].
- [10] F. Kombo, "Carrier bypass: No drastic surgery required to protect revenue," 2012. [Online]. Available: http://www.telecomasia.net/pdf/CSGI/CSG_AsiaConnectionsJuly2012_CarrierBypass.pdf. [Accessed 4 Jun 2015].

- [11] Etross Telecom Co. Ltd., “GSM Modem Pool 8 Ports 32Sims ETS-8132 with SIM Rotation,” 2013. [Online]. Available: http://www.etrass.com/products_ys/&productId=30&comp_stats=comp-FrontProducts_list01-1364547681813.html. [Accessed 5 Jun 2015].
- [12] Bangladesh Telecommunication Regularity Commission, “Mobile Phone Subscribers in Bangladesh January 2014,” 2014. [Online]. Available: <http://www.btrc.gov.bd/content/mobile-phone-subscribers-bangladesh-january-2014>. [Accessed Mar 2015].
- [13] Wikipedia, “List of mobile network operators,” [Online]. Available: http://en.wikipedia.org/wiki/List_of_mobile_network_operators. [Accessed 5 Mar 2015].
- [14] OpenCellID Community, “OpenCellID Database,” [Online]. Available: <http://opencellid.org/#action=statistics.cells&type=2&dateFrom=&dateTo=&mcc=&mnc=&sortBy=1>. [Accessed 7 Jun 2015].
- [15] Wikipedia, “Hellinger distance,” [Online]. Available: http://en.wikipedia.org/wiki/Hellinger_distance. [Accessed 7 Jun 2015].
- [16] G. Cugola and A. Margara, “Processing flows of information: From data stream to complex event processing,” *ACM Computing Surveys (CSUR)*, vol. 44, no. 3, Jun 2012.
- [17] L. Neumeyer, S. Clara, B. Robbins, A. Nair and A. Kesari, “S4: Distributed Stream Computing Platform,” *IEEE Int. Conf. on Data Mining Workshops '10*, pp. 170-177, Dec 2010.
- [18] Apache Software Foundation, “Apache ZooKeeper,” [Online]. Available: <https://zookeeper.apache.org/>. [Accessed 7 June 2015].
- [19] D. Gyllstrom, E. Wu, H. Chae, Y. Diao, P. Stahlberg and G. Anderson, “SASE: Complex Event Processing over Streams,” *CIDR*, Jan 2007.
- [20] Esper Team and EsperTech Inc., “Esper Reference Documentation Version 5.1.0,” 2014.
- [21] EsperTech Inc., “Esper: Event Processing for Java,” 2015. [Online]. Available: <http://www.espertech.com/products/esper.php>.
- [22] S. Suhothayan, K. Gajasinghe, I. L. Narangoda and S. Chaturanga, “Siddhi: A second look at complex event processing architectures,” *ACM GCE Workshop*, 2011.

- [23] S. Suhothayan, K. Gajasinghe, I. L. Narangoda and S. Chaturanga, “Siddhi-CEP, B.Sc. Project Report,” Dept. of Computer Sci. and Eng, Univ. of Moratuwa, Moratuwa, Sri Lanka, 2011.
- [24] WSO2 Inc., “WSO2 Complex Event Processor Documentation Version 3.1.0,” 2015.
- [25] D. Anicic, S. Rudolph, P. Fodor and N. Stojanovic., “Stream reasoning and complex event processing in ETALIS,” *Semantic Web Journal*, 2012.
- [26] Cornell Database Group, “Cayuga: Stateful publish/subscribe for event monitoring,” [Online]. Available: <http://www.cs.cornell.edu/bigreddata/cayuga/>. [Accessed 7 Jun 2015].
- [27] N. Gehani, H. Jagadish and O. Shmueli, “Composite event specification in active databases: Model & implementation,” in *Proc. Int. Conf. on Very Large Data Bases*, 1992, p. 327–327.
- [28] J. Morrell and S. D. Vidich., “Complex Event Processing with Coral8,” [Online]. Available: http://download.microsoft.com/download/5/6/6/566AEA2A-C50E-47B8-890E-BCF4E0EC5D0B/Complex_Event_Processing_with_Coral8_Final.pdf. [Accessed Jun 2015].
- [29] Oracle Corporation, “Oracle Event Processing,” [Online]. Available: <http://www.oracle.com/technetwork/middleware/complex-event-processing/overview/oepdatasheet12c-2226352.pdf>. [Accessed Jun 2015].
- [30] TIBCO Software, “TIBCO StreamBase,” [Online]. Available: <http://www.tibco.com/products/event-processing/complex-event-processing/streambase-complex-event-processing>. [Accessed Jun 2015].
- [31] N. Marz and J. Warren, “A new paradigm for Big Data,” in *Big data. Principles and best practices of scalable real-time data systems*, Manning Publications, 2014.

- [32] Apache Software Foundation, “Apache Hadoop,” [Online]. Available: <https://hadoop.apache.org/>. [Accessed 5 Jun 2015].
- [33] S. Perera, “Implementing Bigdata Lambda Architecture using WSO2 CEP and BAM,” 2014. [Online]. Available: <http://srinathsvi.blogspot.com/2014/03/implementing-bigdata-lambda.html>. [Accessed 27 May 2015].
- [34] D. De Silva, “Lambda Architecture Demo for CEP [Online],” 2014. [Online]. Available: <http://wso2-oxygen-tank.10903.n7.nabble.com/Lambda-Architecture-Demo-for-CEP-td107942.html>. [Accessed 27 May 2015].
- [35] WSO2 Inc., “WSO2 Business Activity Monitor Documentation Version 2.5.0,” 2015.
- [36] J. Dean and S. Ghemawat, “MapReduce: Simplified Data Processing on Large Clusters,” in *Proc. 6th Symp. on Operating System Design and Implementation (OSDI)*, 2004, p. 137–150.
- [37] WSO2 Inc., “WSO2 Data Analytics Server Documentation Version 3.1.0,” 2017.
- [38] P. Jayawardhana, A. Kumara, D. Perera and A. Paranawithana, “Kanthaka: Big Data Caller Detail Record (CDR) Analyzer for Near Real Time Telecom Promotions,” *Proc. Fourth Int. Conf. on Intelligent Systems Modelling & Simulation (ISMS)*, pp. 534-538, 2013.