

Conference Papers

- [1] Yongheng Chen, Linhai Song, Xinyu Xing, Fengyuan Xu, and Wenfei Wu. “**Automated Finite State Machine Extraction**”. In: *Proceedings of the 2019 Workshop on Forming an Ecosystem Around Software Transformation*. FEAST '19. 2019.
- [2] Yimin Jiang, Yong Cui, Wenfei Wu, Zhe Xu, Jiahua Gu, K. K. Ramakrishnan, Yongchao He, and Xuehai Qian. “**SpeedyBox: Low-Latency NFV Service Chains with Cross-NF Runtime Consolidation**”. In: *Proceedings of the 39th IEEE International Conference on Distributed Computing Systems*. ICDCS '19. 2019.
- [3] Junfeng Li, Dan Li, Wenfei Wu, K. K. Ramakrishnan, Jinkun Geng, Fei Gui, Fanzhao Wang, and Kai Zheng. “**Sphinx: A Transport Protocol for High-Speed and Lossy Mobile Networks**”. In: *Proceedings of the 38th IEEE International Performance Computing and Communications Conference*. IPCCC '19. 2019.
- [4] Soo-Jin Moon, Jeffrey Helt, Yifei Yuan, Yves Bieri, Sujata Banerjee, Vyas Sekar, Wenfei Wu, Mihalis Yannakakis, and Ying Zhang. “**Alembic: Automated Model Inference for Stateful Network Functions**”. In: *Proceedings of the 16th USENIX Symposium on Networked Systems Design and Implementation*. NSDI '19. 2019.
- [5] Qi-An Fu and Wenfei Wu. “**TUS: A Transactional Update Service for SDN Applications**”. In: *Proceedings of the 9th ACM SIGOPS Asia-Pacific Workshop on Systems*. APSys '18. 2018.
- [6] Qingmei Ren, Yong Cui, Wenfei Wu, Changfeng Chen, Yuchi Chen, Jiangchuan Liu, and Hongyi Huang. “**Improving Quality of Experience for Mobile Broadcasters in Personalized Live Video Streaming**”. In: *2018 IEEE/ACM 26th International Symposium on Quality of Service*. IWQoS '18. 2018.
- [7] Ye Yu, Ying Zhang, Wenfei Wu, and Chen Qian. “**NetCP: Consistent, Non-interruptive and Efficient Checkpointing and Rollback of SDN**”. In: *2018 IEEE/ACM 26th International Symposium on Quality of Service*. IWQoS '18. 2018.
- [8] Anubhavnidhi Abhashkumar, Joon-Myung Kang, Sujata Banerjee, Aditya Akella, Ying Zhang, and Wenfei Wu. “**Supporting Diverse Dynamic Intent-based Policies using Janus**”. In: *Proceedings of the 13th ACM International Conference on emerging Networking Experiments and Technologies*. CoNEXT '17. 2017.
- [9] Anubhavnidhi Abhashkumar, Jeongkeun Lee, Jean Tourrilhes, Sujata Banerjee, Wenfei Wu, Joon-Myung Kang, and Aditya Akella. “**P5: Policy-driven optimization of P4 pipeline**”. In: *Proceedings of the 2017 Symposium on SDN Research*. SOSR '17. 2017.
- [10] Keqiang He, Weite Qin, Qiwei Zhang, Wenfei Wu, Junjie Yang, Tian Pan, Chengchen Hu, Jiao Zhang, Brent Stephens, Aditya Akella, and Ying Zhang. “**Low Latency Software Rate Limiters for Cloud Networks**”. In: *Proceedings of the 2017 Asia-Pacific Workshop on Networking*. APNet '17. 2017.
- [11] Ying Zhang, Wenfei Wu, Sujata Banerjee, Joon-Myung Kang, and Mario A Sanchez. “**SLA-Verifier: Stateful and Quantitative Verification for Service Chaining**”. In: *Proceedings of the 2017 IEEE Conference on Computer Communications*. INFOCOM '17. 2017.
- [12] Linhai Song, Heqing Huang, Wu Zhou, Wenfei Wu, and Yiying Zhang. “**Learning from Big Malwares**”. In: *Proceedings of the 7th ACM SIGOPS Asia-Pacific Workshop on Systems*. APSys '16. 2016.
- [13] Wenfei Wu, Ying Zhang, and Sujata Banerjee. “**Automatic Synthesis of NF Models by Program Analysis**”. In: *Proceedings of the 15th ACM Workshop on Hot Topics in Networks*. HotNets '16. 2016.
- [14] Aaron Gember-Jacobson, Wenfei Wu, Xiujuan Li, Aditya Akella, and Ratul Mahajan. “**Management plane analytics**”. In: *Proceedings of the 2015 ACM Conference on Internet Measurement Conference*. IMC '15. 2015.

- [15] Wenfei Wu, Keqiang He, and Aditya Akella. “**Perfsight: Performance diagnosis for software dataplans**”. In: *Proceedings of the 2015 ACM Conference on Internet Measurement Conference*. IMC '15. 2015.
- [16] Mehrdad Moradi, Wenfei Wu, Li Erran Li, and Zhuoqing Morley Mao. “**SoftMoW: recursive and reconfigurable cellular WAN architecture**”. In: *Proceedings of the 10th ACM International on Conference on emerging Networking Experiments and Technologies*. CoNEXT '14. 2014.
- [17] Wenfei Wu, Li Erran Li, Aurojit Panda, and Scott Shenker. “**PRAN: Programmable radio access networks**”. In: *Proceedings of the 13th ACM Workshop on Hot Topics in Networks*. HotNets '14. 2014.
- [18] Wenfei Wu, Yizheng Chen, Ramakrishnan Durairajan, Dongchan Kim, Ashok Anand, and Aditya Akella. “**Adaptive data transmission in the cloud**”. In: *2013 IEEE/ACM 21st International Symposium on Quality of Service*. IWQoS '13. 2013.
- [19] Wenfei Wu, Guohui Wang, Aditya Akella, and Anees Shaikh. “**Virtual network diagnosis as a service**”. In: *Proceedings of the 4th annual Symposium on Cloud Computing*. SoCC '13. 2013.
- [20] Dongsu Han, Ashok Anand, Fahad Dogar, Boyan Li, Hyeontaek Lim, Michel Machado, Arvind Mukundan, Wenfei Wu, Aditya Akella, David G. Andersen, John W. Byers, Srinivasan Seshan, and Peter Steenkiste. “**XIA: Efficient Support for Evolvable Internetworking**”. In: *Proceedings of the 9th USENIX Symposium on Networked Systems Design and Implementation*. NSDI '12. 2012.
- [21] Ashok Anand, Fahad Dogar, Dongsu Han, Boyan Li, Hyeontaek Lim, Michel Machado, Wenfei Wu, Aditya Akella, David G Andersen, John W Byers, et al. “**XIA: An architecture for an evolvable and trustworthy Internet**”. In: *Proceedings of the 10th ACM Workshop on Hot Topics in Networks*. HotNets '11. 2011.
- [22] Kai Chen, Chuanxiong Guo, Haitao Wu, Jing Yuan, Zhenqian Feng, Yan Chen, Songwu Lu, and Wenfei Wu. “**Generic and Automatic Address Configuration for Data Center Networks**”. In: *Proceedings of the ACM SIGCOMM 2010 Conference*. SIGCOMM '10. 2010.
- [23] Chuanxiong Guo, Guohan Lu, Helen J. Wang, Shuang Yang, Chao Kong, Peng Sun, Wenfei Wu, and Yongguang Zhang. “**SecondNet: A Data Center Network Virtualization Architecture with Bandwidth Guarantees**”. In: *Proceedings of the 6th International Conference on emerging Networking Experiments and Technologies (CoNEXT)*. CoNEXT '10. 2010.

Journal Papers

- [1] Wenfei Wu and Ying Zhang. “**Network Function Modeling and Its Applications**”. In: *IEEE Internet Computing* (2017).
- [2] Kai Chen, Chuanxiong Guo, Haitao Wu, Jing Yuan, Zhenqian Feng, Yan Chen, Songwu Lu, and Wenfei Wu. “**DAC: generic and automatic address configuration for data center networks**”. In: *IEEE/ACM Transactions on Networking* (2012).

Patents

- [1] Joon Myung Kang, Anubhavnidhi Abhashkumar, Sujata Banerjee, Ying Zhang, and Wenfei Wu. *Generating composite network policy*. US Patent Application US20180316576A1. Nov. 2018.
- [2] Wenfei Wu, Ying Zhang, and Sujata Banerjee. *Middlebox modeling*. US Patent Application US20180131621A1. May 2018.

- [3] Ying Zhang, Wenfei Wu, and Sujata Banerjee. *Selectively monitoring a network of network function chains based on probability of service level agreement violation*. US Patent Application US20180123930A1. May 2018.

Posters

- [1] Yongchao He. “**Fully Functional Rate Limiter Design on Programmable Hardware Switches**”. In: *Proceedings of the ACM SIGCOMM 2019 Conference*. SIGCOMM Poster '19. 2019.
- [2] Hongyi Huang and Wenfei Wu. “**NFD: Using Behavior Models to Develop Cross-Platform NFs**”. In: *Proceedings of the ACM SIGCOMM 2019 Conference*. SIGCOMM Poster '19. 2019.
- [3] Qingxiu Liu, Wenfei Wu, and Qingsong Liu. “**TT-DNS: Trustworthy Third-Party DNS Service with Privacy Preserving**”. In: *Proceedings of the 3rd Asia-Pacific Workshop on Networking*. APNet Poster '19. 2019.
- [4] Bangwen Deng and Wenfei Wu. “**Redundant Logic Elimination for Network Functions**”. In: *Proceedings of the ACM SIGCOMM 2018 Conference*. SIGCOMM Poster '18. 2018.
- [5] Keqiang He, Weite Qin, Qiwei Zhang, Wenfei Wu, Junjie Yang, Tian Pan, Chengchen Hu, Jiao Zhang, Aditya Akella, and Ying Zhang. “**Improving Latency and Burst-tolerance for Software Rate Limiters**”. In: *Presented in the 14th USENIX Symposium on Networked Systems Design and Implementation*. NSDI Poster '17. 2017.
- [6] Cong Liu, Yong Cui, Wenfei Wu, and Jianping Wu. “**Protecting Privacy of NF states in NFV management Systems with Trusted Execution Environment**”. In: *Proceedings of the 2017 Asia-Pacific Workshop on Networking*. APNet Poster '17. 2017.
- [7] Wenfei Wu and Ying Zhang. “**Lancet: Extracting Forwarding Models from NF Programs**”. In: *Proceedings of the 2017 IEEE Conference on Computer Communications*. INFOCOM Poster '17. 2017.
- [8] Wenfei Wu, Guohui Wang, Aditya Akella, and Anees Shaikh. “**Virtual network diagnosis as a service**”. In: *Proceedings of 2014 Open Networking Summit*. ONS Poster '14. 2014.
- [9] Wenfei Wu, Yoshio Turner, and Mike Schlansker. “**Routing optimization for ensemble routing**”. In: *Proceedings of the 2011 ACM/IEEE Seventh Symposium on Architectures for Networking and Communications Systems*. ANCS Poster '11. 2011.

Last updated: August 25, 2019