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Title: Cleanroom Computing and Cleanroom Security

Abstract: Network has become an integral part in people's daily lives and work. However, there are two key scientific issues that prevent users from using network services: performance issue and security issue. To address the performance issue of network services, we proposed the Cleanroom Computing Mechanism: Software modules will be streamed into users' client devices and servers, so as to achieve the goal of "executing while streaming", which will significantly enhance the user experience. We also proposed the Cleanroom Security Mechanism to improve the security of network services: Users and service providers are required to sign Cleanroom Security Agreements to ensure that only those software agreed by both sides can execute in the users' client devices and servers, which further builds mutual trust between the two computational bodies.

Short-Bio: Guojun Wang received B.Sc. degree in Geophysics, M.Sc. degree in Computer Science, and Ph.D. degree in Computer Science, at Central South University, China, in 1992, 1996, 2002, respectively. He is a Pearl River Scholarship Distinguished Professor of Higher Education in Guangdong Province, a Doctoral Supervisor and Vice Dean of School of Computer Science and Cyber Engineering,

Guangzhou University, China, a Vice Chairman of Intelligence Engineering Society of Guangzhou, and the Director of Institute of Computer Networks at Guangzhou University. He has been listed in Chinese Most Cited Researchers (Computer Science) by Elsevier in the past six consecutive years (2014-2019). His h-index is 51 (as of the date September 19, 2020). He had been a Professor at Central South University, China; an Adjunct Professor at Temple University, USA; a Visiting Scholar at Florida Atlantic University, USA; a Visiting Researcher at the University of Aizu, Japan; and a Research Fellow at the Hong Kong Polytechnic University, Hong Kong SAR, China. His research interests include artificial intelligence, big data, cloud computing, Internet of Things (IoT), blockchain, trustworthy/dependable computing, network security, privacy preserving, recommendation systems, smart cities, and medical information systems. He has published more than 400 technical papers and books/chapters in the above areas, including top international journals like ACM TAAS/TOSN/CSUR and IEEE TC/TPDS/TDSC, and top international conferences like CCS/WWW/INFOCOM/CIKM/DSN/ESORICS. His research is supported by Key Project of the National Natural Science Foundation of China, the National High-Tech Research and Development Plan of China (863 Plan), the Ministry of Education Fund for Doctoral Disciplines in Higher Education, the Guangdong Provincial Natural Science Foundation, the Hunan Provincial Natural Science Foundation, and the Hunan Provincial Science and Technology Program. His research is also supported by talents programs including the Program for Pearl River Scholarship Distinguished Professor of Higher Education in Guangdong Province, the Hunan Provincial Natural Science Foundation of China for Distinguished Young Scholars, and the Program for New Century Excellent Talents in University. He is a recipient of a number of science and technology awards, including the 2018 Special Government Allowances of the State Council, the 2014 First Prize of the National Natural Science Award (name in the 5th place), the 2014 Second Prize of the Hunan Provincial Natural Science Award (name in the 1st place), the 2013 and 2003 First Prize of two Natural Science Awards of Ministry of Education of China (name in the

4th and 5th places, respectively), and a number of Best Paper Awards in the international conferences, including iSCI 2019, IEEE UIC 2018, IEEE IoP 2018, IEEE ISPA 2013, and IEEE TrustCom 2010. He is an associate editor or on editorial board of some international journals including IEEE Transactions on Parallel and Distributed Systems (TPDS), Security and Communication Networks (SCN), International Journal of Parallel, Emergent and Distributed Systems (IJPEDS), and International Journal of Computational Science and Engineering (IJCSE).

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