OPPO

To:

Mirko Cano Soveri (Mirko.cano@etsi.org),

Susanna Kooistra (susanna.kooistra@etsi.org)

3GPP Mobile Competence Centre

650 Route Des Lucioles

Sophia-Antipolis, 06921 Cedex

France

Oct 15, 2023

Subject: Nomination of candidate for 3GPP TSG SA WG3 Vice-Chairman

Dear Mr. Soveri and Ms. Kooistra,

OPPO is pleased to nominate Mr. Marcus Wong as a candidate for the Vice-Chairman of 3GPP SA WG3. OPPO is an individual member of 3GPP via CCSA Organizational Partner.

You will see from the attached resume that Marcus is an experienced professional in the Telecom Security area. He is an active contributor of 3GPP SA WG3 for more than 20 years with various companies. Marcus joined OPPO in January 2022 to represent the company in 3GPP TSG SA WG3. We believe his solid technical background associated his long standing in the wireless secure communication area give him the necessary qualities to effectively carry on the responsibility of 3GPP TSG SA WG3 Vice-Chairman.

If Marcus is elected Vice-Chairman of SA3, he will act in the interest of 3GPP participants with impartiality and integrity. OPPO is fully committed to allocating the necessary resources and support to enable him to accomplish the duties and responsibilities of 3GPP TSG SA WG3 Vice-Chairman.

Sincerely Yours,

Ning YANG

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Head of Standard and Research Department

OPPO

MARCUS WONG

Recognized wireless security leader with over 20 years of professional experience in the area of wireless secure communications and standardizations. Former vice-chair of 3GPP SA3 developing 4G and 5G security standards. Results-oriented and customer-focused individual, knowledgeable in all phases of standardization and operations of 5G systems with proven strengths in getting ideas across and proposals standardized quickly. Demonstrates instinctive ability to promote and defend technical proposals while crushing the competition.   In depth knowledge of the following standardizations and organizations:

3GPP	**ETSI NVF**	**IEEE802.11**	**IEEE802.15**
IEEE802.20	**IETF**	**OMA**	**WWRF**

PROFESSIONAL EXPERIENCE

OPPO USA   **2022 - Present**
  Principal Researcher, OPPO Research and Standards
- **5G/6G Standardization, Research and Publication**
  Responsible for 5G and 6G security research. Developing ideas and championing research into 5G/6G standards

  Lead OPPO team in 3GPP SA3 security working group.

Futurewei Technologies (Bridgewater, New Jersey)   **2007 - 2022**
  Principal Researcher, Futurewei/Huawei Research and Standards
- **4G/5G Standardization, Research and Publication**
  Responsible for Huawei/Futurewei 5G security standards in 3GPP by leading a team of researchers and experts in planning security research strategy, developing security requirements and solutions into proposals for submission into standards group. Turned various research results into numerous publications.

  Served as vice chair of 3GPP SA3 security working group from 2009 to 2011 and vice chair of Wireless World Research Forum security group from 2007 to 2011.

- **Customer Interface**
  Represent Futurewei/Huawei as an security expert in promoting and educating major telecom operators on security of 5G standards.

- **ETSI NFV Security Standardization**
  Developed technical security requirements into proposals and turned into published standards on security of virtualizations.

Samsung Electronics (New York and New Jersey)   **2004 - 2007**
  Senior Research Member, Samsung Advanced Institute of Technology, Information Security Group

- **3G/4G Standardization**
  Developed security requirements, enhancements, and solutions for potential application in Samsung products in the area of Long Term Evolution (LTE) and System Architecture Evolution (SAE). Made and presented proposals for standardization in groups 3GPP SA3 and 3GPP CT6.

- **IEEE Standardization (802.11s, 802.11w, 802.15.5, and 802.20)**
  Developed security requirements and solutions for Samsung's IEEE 802.1X family of products in the area of wireless mesh networks. Made and presented technical proposals for standardization in working groups 802.11s, 802.11w, and 802.15.5. Key contributing areas include:
     Distributed Authentication and Optimized Security Procedures in WLAN mesh working group.

Broadcast Management Frame Protection Protocol in the WLAN Management Frame Protection group.
Key Management Protocol in the WPAN mesh working group.

Developed technical security requirements and solutions for 802.20.

- **Wireless World Research Forum (WWRF)**
  Analyzed and defined security trend in the next generation of mobile and wireless networks.
  Developed future security research directions for Samsung corporate R&D in beyond 3G services and applications. Actively involved in researching and sharing R&D findings and security advances with the forum members across the industry.

Lucent Technologies (Whippany, NJ)   **1998 – 2004**
  Member of Technical Staff, Wireless Security Group, Standardization Department

- **3G Standardization**
  Developed security requirements and proposals for the third generation mobile systems in 3GPP and 3GPP2.

- **Wireless Application Protocols Standardization (currently known as OMA specifications)**
  Contributed technical proposals in the standardization of security protocols and procedures in WAP.

- **Wireless Internet Access System**
  Provided security expertise in the design and implementation of system security. Evaluated security vulnerabilities and security algorithms. Designed and implemented authentication protocols for the system.

- **Fraud Data Analytics**
  Analyzed fraudulent cellular call data pattern and implemented algorithm for detection that resulted in reduced wireless fraud for wireless service provider client.

AT&T (Whippany, NJ)   **1992 – 1998**

AT&T Bell Laboratories and AT&T Advanced Communications Laboratory   **1995 – 1998**
  Member of Technical Staff

- **Satellite Communication Security**
  Assessed security vulnerabilities, created security architecture requirements, and developed user authentication procedures offering multilevel security for different level of security requirements.

- **Wireless Security Lab**
  Designed and built wireless security lab for evaluating wireless secure communication protocols.
  Created platform for implementing and testing advanced authentication and encryption techniques.

- **Indoor Broadband Wireless Packet Data Access System**
  Developed software security module for secure communication between mobile unit and access port.

Consumer Communication Services Group   **1992 – 1995**
  Associate Member

- **Billing System Fraud Solution Development, software testing and certification**
  Developed real-time fraud detection applications. Performed system tests and software release certifications.

EDUCATION AND CERTIFICATION

MA, Computer Science, Queen's College of City University of New York, Flushing, NY
BS, Computer Engineering, University of South Florida, Tampa, FL
CISSP, **Certified Information System Security Professional**, 2007

PUBLICATIONS

"*Femtocells: Secure Networking and Communications*"**,** Communication Series book, River Publishers, 2014

"**Challenges of Security Assurance Standardization in ICT**", Journal of ICT, 2014

"**Security and Usability**", Book Chapter in Communication Series book "*User Requirements for Wireless*", River Publisher, 2015

"**Challenges of Cyber Security and a Fundamental Way to Address Cyber Security**", Book Chapter in Communication Series book "*Cybersecurity and Privacy Bridging the Gap*", River Publisher, 2017

"**IOT Security Considerations in 5G**," IEEE Educational Series, IEEE Standards University, 2018

"**5G Security System Design for All Ages**", Book Chapter in "*5G System Design: An End to End Perspective*", Second Editon, Springer International Publishing, 2021

"**Security Aspect of 5G Fronthaul**", IEEE Wireless Communications, Volume 29, Issue 2, 2022