



(19) **United States**

(12) **Patent Application Publication**

ROST et al.

(10) **Pub. No.: US 2024/0214277 A1**

(43) **Pub. Date: Jun. 27, 2024**

(54) **A PACKET DATA UNIT SESSION FOR MACHINE LEARNING EXPLORATION FOR WIRELESS COMMUNICATION NETWORK OPTIMIZATION**

(71) Applicant: **Nokia Technologies Oy**, Espoo, FL (US)

(72) Inventors: **Peter ROST**, Munich (DE); **Cinzia SARTORI**, Munich (DE); **Dario BEGA**, Munich (DE)

(21) Appl. No.: **18/555,977**

(22) PCT Filed: **Jun. 1, 2021**

(86) PCT No.: **PCT/EP2021/064674**
§ 371 (c)(1),
(2) Date: **Oct. 18, 2023**

(51) **Int. Cl.**
H04L 41/16 (2006.01)
H04L 41/0823 (2006.01)
H04W 24/02 (2006.01)

(52) **U.S. Cl.**
CPC **H04L 41/16** (2013.01); **H04L 41/0823** (2013.01); **H04W 24/02** (2013.01)

(57) **ABSTRACT**
Devices, methods and computer programs for a packet data unit session for machine learning exploration for wireless communication network optimization are disclosed. A client device detects a trigger condition being satisfied for machine learning exploration for wireless communication network optimization. In response, the client device initiates establishment of a packet data unit (PDU) session for the machine learning exploration. The PDU session for the machine learning exploration is associated with a machine learning exploration indicator that indicates that the PDU session is reserved for machine learning exploration.

