



US 20230232324A1

(19) **United States**

(12) **Patent Application Publication**  
**Chen et al.**

(10) **Pub. No.: US 2023/0232324 A1**

(43) **Pub. Date: Jul. 20, 2023**

(54) **DETECTING CONDITIONS FOR TARGET  
WAKE TIME PARAMETER ADJUSTMENT**

**Publication Classification**

(51) **Int. Cl.**  
**H04W 52/02** (2006.01)

(52) **U.S. Cl.**  
**CPC H04W 52/0216** (2013.01)

(71) Applicant: **Samsung Electronics Co., Ltd.**,  
Suwon-si (KR)

(72) Inventors: **Guanbo Chen**, McKinney, TX (US);  
**Abhishek Sehgal**, Plano, TX (US); **Hao  
Chen**, Plano, TX (US); **Khuong N.  
Nguyen**, Frisco, TX (US)

(21) Appl. No.: **18/147,650**

(22) Filed: **Dec. 28, 2022**

**Related U.S. Application Data**

(60) Provisional application No. 63/299,771, filed on Jan.  
14, 2022.

(57) **ABSTRACT**

Methods and apparatuses for detecting conditions associated with a target wake time (TWT) parameter adjustment. A communication device comprises a transceiver and a processor operably coupled to the transceiver. The transceiver is configured to receive information including packets associated with a TWT. The processor is configured to determine a network service type based on the packets, and when the determined network service type is a real-time service type: determine whether a condition associated with the TWT is satisfied, and modify the TWT based on the condition.

