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Patent Search

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Abstract:

The present invention relates to deterring handover failure (HF) by minimizing the radio link failure (RLF) at time-to-trigger (TTT) period in 5G network. A method (300) deterring handover failure for deterrance system (100), consists of a RLF predictor module (107) that predicts a RLF probability (PRLF) (112) using RLF parameters (110) handover mobility parameters (111), a HF predictor module (108) that predicts a HF probability (PHF) (113) from the predicted RLF probability (PRLF) and handover parameters (111), a handover mobility parameter module (109) dynamically tunes time-to-trigger (TTTnew) (114) and hysteresis (HYSnew) (115) to handover a user eq (UE) (200) from source network node (101a) to target network node (101b) when the reference signal received power (RSRP) from target network node (101b) is great from the source network node (101a) by HYSnew (115) margin at TTTnew (114). Figure 2.

Complete Specification

Description:A METHOD AND SYSTEM FOR HANDOVER FAILURE DETERRENCE IN 5G NETWORK

FIELD OF THE INVENTION

The present invention relates to a field of telecommunication, in specific wireless networking. Particularly, the present invention relates to handover management in network. More particularly, the present invention relates to deterring handover failure (HF) by minimizing the radio link failure (RLF) during time-to-trigger (TTT) period. Advantageously, the present invention dynamically updates TTT and hysteresis (HYS) to minimize and prevent RLF during handover period.

BACKGROUND OF THE INVENTION

Handover is a vital concept in communication network, in which a connected cellular call or a data session is transferred from one base station to another without interruption. Handover from one base station to another is initiated if the reference signal received power (RSRP) from the neighboring base station becomes higher than the current by a HYS margin for TTT period. Failure in transferring a call/data session from one base station to another is known as HF which can be caused by many factors including RLF. The RLF induced HF not only causes call drop, but also increases handover interruption time.

During handover, the radio resource control (RRC) transfers the radio resources from source base station to target base station. In case the transfer is unsuccessful, user equipment (UE) experiences a RLF. In other words, the RLF occurs when the user equipment UE loses radio link with the base station. Therefore, to have a seamless connection or data session, the HF must be minimized, which can be largely achieved by minimizing RLF. Existing methods and systems fail to incorporate RLF which

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