CLAIMS

1. A Serving General Packet Radio Service (GPRS) Support Node (SGSN) comprising:

~~a receiving unit configured to receive~~receiver which, in operation, receives a service request message~~,~~ from a ~~service type of~~traffic offloading apparatus, which ~~is modified in~~has received the service request message ~~to indicate~~from a user equipment (UE) in idle mode, has modified a service type in the service request message from a paging response type to an UE-initiated service request ~~at a traffic offloading apparatus, the service request message is transmitted from a user equipment (UE) in idle mode as a paging response;~~type, and has forwarded the service request message whose service type was modified to the SGSN; and

~~a processing unit configured to performs an authentication process for the UE.~~

a processor which, in operation, authenticates the UE using the received service request message.

2. The ~~Serving GPRS Support Node (~~SGSN~~)~~ according to claim 1, wherein the receiver receives the service request message of the UE-initiated service request ~~is~~type as signaling.

3. The ~~Serving GPRS Support Node (~~SGSN~~)~~ according to claim 1, wherein the ~~authentication process for~~processor authenticates the UE ~~is~~ by performing call connection establishment steps prescribed by 3rd Generation Partnership Project (3GPP~~.~~).

4. A controlling method, to be performed by a Serving ~~GPRS~~General Packet Radio Service (GPRS) Support Node (SGSN), the method comprising:

receiving a service request message~~, a service type of which is modified in the service request message to indicate an UE-initiated service request at~~ from a traffic offloading apparatus, which has received the service request message ~~is transmitted~~ from a user equipment (UE) in idle mode ~~as a paging response~~, has modified a service type in the service request message from a paging response type to an UE-initiated service request type, and has forwarded the service request message whose service type was modified to the SGSN; and

~~performing an authentication process for the UE.~~

——— authenticating the UE using the received service request message.

5. The controlling method according to claim 4, wherein the service request message of the UE-initiated service request type is received as signaling.

6. The controlling method according to claim 4, wherein the ~~authentication process for~~authenticating of the UE ~~is~~includes call connection establishment steps prescribed by 3rd Generation Partnership Project (3GPP~~.~~).