CLAIMS

1 A mobile communication method comprising the steps of:

at a call control node, upon reception of a priority call, notifying a reception of a call connection request signal including priority call information, to a priority control node;

at the priority control node, in response to a notification of the reception of the call connection request signal from the call control node, determining whether it is required to change a priority of a call control signal bearer for sending the call connection request signal from a first gateway connected to the call control node to a mobile terminal, to a higher priority than a priority set in the call control signal bearer;

changing the priority of the call control signal bearer to the higher priority than the priority set in the call control signal bearer, when it is required to change the priority of the call control signal bearer; and

performing a paging for the mobile terminal according to the changed priority of the call control signal bearer.

2 The mobile communication method as defined in claim 1, wherein:

the step of changing the priority of the call control signal bearer includes:

at the priority control node, sending a priority change request

signal including the higher priority than the priority set in the call control signal bearer, to the first gateway; and

at the first gateway, sending a bearer update request signal including the priority that is included in the priority change request signal, to a mobility management node via a second gateway; and

the step of performing the paging includes:

at the mobility management node, when the priority included in the bearer update request signal is a priority which requires to perform the paging preferentially, sending a paging signal including a priority indication which requires to perform the paging preferentially, to a radio base station; and

at the radio base station, when the paging signal including the priority indication is received, sending a paging signal to the mobile terminal preferentially.

3 The mobile communication method as defined in claim 1, wherein:

the step of changing the priority of the call control signal bearer includes:

at the priority control node, sending a first priority change request signal including the higher priority than the priority set in the call control signal bearer, to a second gateway connected to the first gateway;

at the second gateway, sending a bearer update request signal including the priority that is included in the first priority change request signal, to a mobility management node; and

at the priority control node, when it is notified from the second gateway that the priority of the call control signal bearer has been changed, sending a second priority change request signal including the higher priority than the priority set in the call control signal bearer, to the first gateway; and

the step of performing the paging includes:

at the mobility management node, when the priority included in the bearer update request signal is a priority which requires to perform the paging preferentially, sending a paging signal including a priority indication which requires to perform the paging preferentially, to a radio base station; and

at the radio base station, when the paging signal including the priority indication is received, sending a paging signal to the mobile terminal preferentially.

4 The mobile communication method as defined in claim 1, further comprising the steps of:

at the call control node, notifying a release of a priority call that has been started by the call connection request signal to the priority control node;

at the priority control node, in response to a notification of the release of the priority call from the call control node, determining whether it is required to recover the priority of the call control signal bearer to the priority set originally in the call control signal bearer; and

recovering the priority of the call control signal bearer to the priority set originally in the call control signal bearer, when it is required to recover the priority of the call control signal bearer.

5 The mobile communication method as defined in claim 4, wherein the step of recovering the priority of the call control signal bearer includes:

at the priority control node, sending a priority recovery request signal including the priority set originally in the call control signal bearer, to a first gateway; and

at the first gateway, sending a bearer update request signal including the priority included in the priority recovery request signal, to a mobility management node via a second gateway; and

at the mobility management node, reconfiguring a connection between the mobile terminal and the radio base station, based on the priority included in the bearer update request signal.

6 The mobile communication method as defined in claim 4, wherein the step of recovering the priority of the call control signal bearer includes:

at the priority control node, sending a first priority recovery request signal including the priority set originally in the call control signal bearer, to a second gateway connected to the first gateway;

at the second gateway, sending the bearer update request signal including the priority that is included in the first priority recovery request signal, to a mobility management node; and

at the mobility management node, reconfiguring a connection between the mobile terminal and the radio base station, based on the priority included in the bearer update request signal; and

at the priority control node, when it is notified from the second gateway that the priority of the call control signal bearer has been recovered, sending a second priority ~~change~~ recover request signal including the priority set originally in the call control signal bearer, to the first gateway.

~~7 A call control node configured to receive a call connection request signal including priority call information, notify a reception of the call connection request signal to a priority control node that controls a priority of a call control signal bearer that is established for sending the call control request signal between a first gateway and a mobile terminal, and send the call connection request signal to the first gateway,~~

~~wherein the call control signal bearer is established according to a priority that is designated by the priority control node.~~

~~8 The call control node as defined in claim 7, wherein the call control node is configured to detect a release of a priority call that has been started by the call connection request signal, and notify the release of the priority call to the priority control node.~~

~~9~~7 A priority control node configured,

when it is notified from a call control node that a call connection request signal including priority call information has been received, to determine whether it is required to change a priority of a call control signal bearer for sending the call connection request signal from a first gateway connected to the call control node to a mobile terminal, to a higher priority than a priority set in the call control signal bearer, and

when a release of a priority call that has been started by the call connection request signal is notified from the call control node, to determine whether it is required to recover the priority of the call control signal bearer to the priority set originally in the call control signal bearer.

~~10~~8 The priority control node as defined in claim ~~9~~7, wherein the priority control node is configured to send a priority change request signal including a higher priority than the priority set in the call control signal bearer, to the first gateway, when it is required to change the priority of the call control signal

bearer.

~~11~~9 The priority control node as defined in claim ~~9~~7, wherein the priority control node is configured to:

send a first priority change request signal including the higher priority than the priority set in the call control signal bearer, to a second gateway connected to the first gateway, when it is required to change the priority of the call control signal bearer; and

send a second priority change request signal including the higher priority than the priority set in the call control signal bearer, to the first gateway, when it is notified from the second gateway that the priority of the call control signal bearer has been changed.

~~12 The priority control node as defined in claim 9, wherein the priority control node is configured to determine whether it is required to recover the priority of the call control signal bearer to the priority set originally in the call control signal bearer, when it is notified from the call control node that a release of a priority call that has been started by the call connection request signal.~~

~~13~~10 The priority control node as defined in claim ~~12~~7, wherein the priority control node is configured to send a priority recovery request signal including a priority set originally in the call control signal bearer, to the first gateway, when

it is required to recover the priority of the call control signal bearer.

~~14~~11 The priority control node as defined in claim ~~12~~7, wherein the priority control node is configured to:

send a first priority recovery request signal including a higher priority than the priority set in the call control signal bearer, to a second gateway connected to the first gateway, when it is required to change the priority of the call control signal bearer; and

send a second priority recovery request signal including the priority set originally in the call control signal bearer, to the first gateway, when it is notified from the second gateway that the priority of the call control signal bearer has been recovered.

~~15~~12 A mobility management node configured, ~~to receive a bearer update request signal including a higher priority than a priority set in the call control signal bearer, and send, when the priority included in the bearer update request signal is a priority which requires to perform a paging preferentially, a paging signal including a priority indication which requires to perform the paging preferentially to a radio base station belonging to the mobility management node, more preferentially than a paging signal not including the priority indication~~upon a reception of a priority call at a call control node, when a priority of a call control signal bearer for sending a call connection request signal from a first

gateway connected to the call control node to a mobile terminal is changed to a higher priority than a priority set in the call control signal bearer, to send a paging signal including a priority indication to a radio base station belonging to the mobility management node, so that a paging for the mobile terminal is performed according to the changed priority.

13 The mobility management node as defined in claim 12, wherein the mobility management node is configured to receive a bearer update request signal including the changed priority of the call control signal bearer, and send a paging signal including a priority indication to a radio base station belonging to the mobility management node, so that a paging for the mobile terminal is performed according to the changed priority included in the bearer update request signal.