

CLAIMS

What is claimed is:

1. A random access transmission method, applied to a terminal side and comprising:
obtaining resource allocation information for random access, wherein the resource allocation information indicates at least two candidate random access resources, and the candidate random access resources comprise candidate resources for sending data;
selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule; and
sending a random access request message over the target random access resource;
the preset selection rule comprises:
in a case of contiguous resources, randomly selecting one of the contiguous resources;
or
in a case of noncontiguous resources, selecting the latest available one of the noncontiguous resources.
2. The random access transmission method according to claim 1, wherein the step of selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule comprises:
selecting a target data transmission resource from the candidate resources for sending data in the at least two candidate random access resources according to the preset selection rule; and
determining the target data transmission resource as the target random access resource.
3. The random access transmission method according to claim 1, wherein the candidate random access resources further comprise: candidate resources for sending control information.
4. The random access transmission method according to claim 3, wherein the step of selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule comprises:
selecting a target data transmission resource from the candidate resources for sending data in the at least two candidate random access resources according to the preset selection rule;
selecting, according to the preset selection rule, a target control information transmission resource from the candidate resources for sending control information that are corresponding to the target data transmission resource; and
determining the target data transmission resource and the target control information transmission resource as the target random access resource.

5. The random access transmission method according to claim 3, wherein the step of selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule comprises:

selecting a target control information transmission resource from the candidate resources for sending control information in the at least two candidate random access resources according to the preset selection rule;

selecting, according to the preset selection rule, a target data transmission resource from the candidate resources for sending data that are corresponding to the target control information transmission resource; and

determining the target control information transmission resource and the target data transmission resource as the target random access resource.

~~6. The random access transmission method according to any one of claims 1 to 5, wherein the preset selection rule comprises:~~

~~in a case of contiguous resources, randomly selecting one of the contiguous resources;~~

~~or~~

~~in a case of noncontiguous resources, selecting the latest available one of the noncontiguous resources.~~

~~76.~~ The random access transmission method according to claim ~~61~~, wherein the case of contiguous resources comprises at least one of the following:

at least two candidate resources for sending data in the candidate random access resources are contiguous;

at least two candidate resources for sending control information in the candidate random access resources are contiguous; and

at least two candidate resources for sending data in the candidate random access resources are contiguous and at least two candidate resources for sending control information in the candidate random access resources are contiguous.

~~87.~~ The random access transmission method according to claim ~~61~~, wherein the case of contiguous resources comprises one of the following:

resources are contiguous in time domain;

resources are contiguous in frequency domain; and

resources are contiguous in both time domain and frequency domain.

~~98.~~ The random access transmission method according to claim ~~87~~, wherein that resources are contiguous in time domain comprises: a time domain gap between adjacent resources is less than a first threshold.

~~409~~. The random access transmission method according to claim ~~87~~, wherein that resources are contiguous in frequency domain comprises: a frequency domain gap between adjacent resources is less than a second threshold.

~~410~~. The random access transmission method according to claim ~~87~~, wherein that resources are contiguous in both time domain and frequency domain comprises: a time domain gap between adjacent resources is less than a third threshold, and a frequency domain gap is less than a fourth threshold.

~~4211~~. The random access transmission method according to any one of claims 1 to 5, wherein the resource allocation information comprises at least one of the following information:

first resource allocation information of the candidate resources for sending data;

second resource allocation information of the candidate resources for sending control information that are corresponding to the candidate resources for sending data;

first indication information for indicating an association relationship between the candidate resources for sending data and the candidate resources for sending control information;

second indication information for indicating an association relationship between the candidate random access resources and carriers; and

third indication information for indicating an association relationship between the candidate random access resources and signals.

~~4312~~. A terminal, comprising a processor, a memory, and a computer program stored in the memory and running on the processor, wherein when the computer program is executed by the processor, the steps are implemented:

obtaining resource allocation information for random access, wherein the resource allocation information indicates at least two candidate random access resources, and the candidate random access resources comprise candidate resources for sending data;

selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule; and

sending a random access request message over the target random access resource;

the preset selection rule comprises:

in a case of contiguous resources, randomly selecting one of the contiguous resources;

or

in a case of noncontiguous resources, selecting the latest available one of the noncontiguous resources.

~~14~~13. The terminal according to claim ~~13~~12, wherein the step of selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule comprises:

selecting a target data transmission resource from the candidate resources for sending data in the at least two candidate random access resources according to the preset selection rule; and
determining the target data transmission resource as the target random access resource.

~~15~~14. The terminal according to claim ~~13~~12, wherein the candidate random access resources further comprise: candidate resources for sending control information.

~~16~~15. The terminal according to claim ~~15~~14, wherein the step of selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule comprises:

selecting a target data transmission resource from the candidate resources for sending data in the at least two candidate random access resources according to the preset selection rule;

selecting, according to the preset selection rule, a target control information transmission resource from the candidate resources for sending control information that are corresponding to the target data transmission resource; and

determining the target data transmission resource and the target control information transmission resource as the target random access resource;

or,

wherein the step of selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule comprises:

selecting a target control information transmission resource from the candidate resources for sending control information in the at least two candidate random access resources according to the preset selection rule;

selecting, according to the preset selection rule, a target data transmission resource from the candidate resources for sending data that are corresponding to the target control information transmission resource; and

determining the target control information transmission resource and the target data transmission resource as the target random access resource.

~~17. The terminal according to any one of claims 13 to 16, wherein the preset selection rule comprises:~~

~~in a case of contiguous resources, randomly selecting one of the contiguous resources;~~

~~or~~

~~in a case of noncontiguous resources, selecting the latest available one of the noncontiguous resources;~~

~~1816~~. The terminal according to claim ~~1712~~, wherein the case of contiguous resources comprises at least one of the following:

at least two candidate resources for sending data in the candidate random access resources are contiguous;

at least two candidate resources for sending control information in the candidate random access resources are contiguous; and

at least two candidate resources for sending data in the candidate random access resources are contiguous and at least two candidate resources for sending control information in the candidate random access resources are contiguous;

wherein the case of contiguous resources comprises one of the following:

resources are contiguous in time domain;

resources are contiguous in frequency domain; and

resources are contiguous in both time domain and frequency domain.

~~1917~~. The terminal according to any one of claims ~~1312~~ to ~~1615~~, wherein the resource allocation information comprises at least one of the following information:

first resource allocation information of the candidate resources for sending data;

second resource allocation information of the candidate resources for sending control information that are corresponding to the candidate resources for sending data;

first indication information for indicating an association relationship between the candidate resources for sending data and the candidate resources for sending control information;

second indication information for indicating an association relationship between the candidate random access resources and carriers; and

third indication information for indicating an association relationship between the candidate random access resources and signals.

~~2018~~. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps are implemented:

obtaining resource allocation information for random access, wherein the resource allocation information indicates at least two candidate random access resources, and the candidate random access resources comprise candidate resources for sending data;

selecting a target random access resource from the at least two candidate random access resources according to a preset selection rule; and

sending a random access request message over the target random access resource;

the preset selection rule comprises:

in a case of contiguous resources, randomly selecting one of the contiguous resources;

or

in a case of noncontiguous resources, selecting the latest available one of the noncontiguous resources.