What is claimed is:

1. A method for selecting synchronization time source over air interface for a mobile terminal device, comprising:

receiving a broadcast message transmitted by a base station among a plurality of base stations, the broadcast message comprising a time synchronization message;

in response to the time synchronization message being a synchronization time source, executing a time synchronization strategy to determine whether time precision of the base station satisfies a preset condition;

in response to the time precision of the base station satisfying the preset condition, continuously using the time synchronization message as the synchronization time source; and

in response to the time precision of the base station not satisfying the preset condition, using locally maintained time information as the synchronization time source.

2. The method of claim 1, wherein executing a time synchronization strategy to determine whether time precision of the base station satisfies a preset condition comprises:

acquiring and updating a signal strength of the base station in real time, determining whether a change value of the signal strength is greater than or equal to a preset strength change threshold, determining that the time precision of the base station does not satisfy the preset condition in response to the change value of the signal strength being greater than or equal to the preset strength change threshold, and determining that the time precision of the base station satisfies the preset condition in response to the change value of the signal strength being less than the preset strength change threshold;

or, acquiring and updating, by the mobile terminal device, the signal strength of the base station in real time, determining whether a value of the signal strength is greater than or equal to a preset signal strength threshold, determining that the time precision of the base station satisfies the preset condition in response to the value of the signal strength being greater than or equal to the preset signal strength threshold, and determining that the time precision of the base station does not satisfy the preset condition in response to the value of the signal strength being less than the preset signal strength threshold.

3. The method of claim 2, wherein in response to the time precision of the base station not satisfying the preset condition, the method further comprises:

determining whether the locally maintained time information satisfies a precision

holding threshold;

in response to the locally maintained time information satisfying the precision holding threshold, using the locally maintained time information as the synchronization time source; and

in response to the locally maintained time information not satisfying the precision holding threshold, continuously using the time synchronization message as the synchronization time source.

4. The method of claim 2, wherein in response to using the locally maintained time information as the synchronization time source, the method further comprises:

determining whether the locally maintained time information satisfies a precision holding threshold;

in response to the locally maintained time information satisfying the precision holding threshold, continuously using the locally maintained time information as the synchronization time source; and

in response to the locally maintained time information not satisfying the precision holding threshold, receiving another broadcast message transmitted by the base station, and using a time synchronization message of the base station as the synchronization time source.

5. The method of claim 2, wherein in response to using the time synchronization message as the synchronization time source, the method further comprises:

reading locally maintained time information in real time, and determining whether the locally maintained time information satisfies a precision holding threshold;

in response to the locally maintained time information satisfying the precision holding threshold, keeping the locally maintained time information unchanged; and

in response to the locally maintained time information not satisfying the precision holding threshold, receiving a broadcast message transmitted by the base station, and using the time synchronization message of the base station as the synchronization time source.

6. The method of any one of claims 3 to 5, wherein the precision holding threshold comprises: a maintenance duration threshold using the locally maintained time as the time synchronization source.

7. The method of any one of claims 1 to 5, wherein in response to the time precision of the base station satisfying the preset condition, the method further comprises: updating the

time synchronization message to the locally maintained time information.

8. The method of any one of claims 1 to 5, wherein the broadcast message further comprises time quality information; and

a base station among the plurality of base stations with the best time quality is selected as the time synchronization source according to the time quality information.

9. A mobile terminal device, comprising: a processor, a memory and a communication bus, wherein:

the communication bus is configured to realize communication between the processor and the memory; and

the processor is configured to execute at least one program stored in the memory to perform the timing method over air interface for a mobile terminal device of any one of claims 1 to 8.

10. A computer-readable storage medium, storing at least one computer program which, when executed by at least one processor, causes the at least one processor to perform the timing method over air interface for a mobile terminal device of any one of claims 1 to 8.