

CLAIMS

1. An authorization token batch-revoking method for a third-party application, wherein the method comprises:

determining a third-party application needing a plurality of authorization tokens to be revoked;

obtaining a current moment, and setting a time validity attribute value for the determined third-party application, so the time validity attribute value equals the current moment;

receiving the plurality of authorization tokens provided by the third-party application;

obtaining a validity attribute value of each of the plurality of authorization tokens;

determining whether the obtained validity attribute value is valid or not;

in response to determining that the obtained validity attribute value is valid, obtaining a validation moment of each of the plurality of the authorization tokens and the time validity attribute value of the third-party application; and

determining that the plurality of the authorization tokens are invalid if the obtained validation moment of each of the plurality of the authorization tokens are earlier than the obtained time validity attribute value, otherwise, determining that the plurality of the authorization tokens are valid.

2. A database authorization record batch-revoking method, wherein a first time validity attribute or a second time validity attribute is configured for an authorization record set needing revoking, and the first time validity attribute is used to describe a first time point or the second time validity attribute is used to describe a second time point, and the method comprises:

determining the authorization record set needing revoking;

setting a time validity attribute value of the first time validity attribute or the second time validity attribute for the determined set, and setting the time validity attribute value to a current moment or a future moment;

obtaining a validity attribute value of each of the authorization records in the authorization record set; and

determining that the authorization records are invalid when the obtained validity attribute values of the authorization records indicates invalid and when authorization validation moments of the authorization records are earlier than the first time point in the authorization record set; or

determining that the authorization records are invalid when the obtained validity attribute values of the authorization records indicates invalid and when authorization validation

moments of the authorization records are later than the second time point in the authorization record set.

3. The method according to claim 2, wherein the authorization record set comprises authorization records for the same authorized party.

4. The method according to claim 2 or 3, further comprising the steps of :
determining a next authorization validation moment of the authorization records in the authorization record set, the next authorization validation moment being the earliest of the next authorization validation moments of the authorization records in the authorization record set;
and

setting the time validity attribute value to a future moment, wherein the time validity attribute value is earlier than the next authorization validation moment.

5. The method of claim 2, wherein setting a time validity attribute value of the first time validity attribute or the second time validity attribute for the determined set and setting the time validity attribute value to a current moment or a future moment comprises:

determining a latest authorization validation moment of the authorization records in the authorization record set and setting the time validity attribute value for the authorization record set when the first time validity attribute is configured for the authorization record set, so the time validity attribute value is later than the latest validation moment of the authorization records in the authorization record set; or

determining an earliest authorization validation moment of the authorization records in the authorization record set and setting the time validity attribute value for the authorization record set when the second time validity attribute is configured for the authorization record set, so the time validity attribute value is earlier than the earliest authorization validation moment of the authorization records in the authorization record set.

6. A database authorization record validity verification method, wherein a first time validity attribute or a second time validity attribute is configured for an authorization record set needing revoking, the first time validity attribute is used to describe a first time point, so an authorization record whose authorization validation moment is earlier than the first time point in the set becomes invalid, the second time validity attribute is used to describe a second time point, so an authorization record whose authorization validation moment is later than the

second time point in the set becomes invalid, and the method comprises:

- determining an authorization record to be verified;
- obtaining a validation moment of the authorization record to be verified;
- obtaining a first time validity attribute value or a second time validity attribute value of an authorization record set that comprises the authorization record to be verified;
- obtaining a validity attribute value of the authorization record to be verified;
- determining that the authorization record to be verified is invalid when the obtained validity attribute value indicates invalid and when the obtained validation moment is earlier than the obtained first time validity attribute value; or
- determining that the authorization record to be verified is invalid when the obtained validity attribute value indicates invalid and when the obtained validation moment is later than the obtained second time validity attribute value.

7. The method according to claim 6, wherein the method further comprises:

- determining that the authorization record to be verified is valid when the obtained validity attribute value indicates valid, and the obtained validation moment is not earlier than the obtained first time validity attribute value; or
- determining that the authorization record to be verified is valid when the obtained validity attribute value indicates valid, and the obtained validation moment is not later than the obtained second time validity attribute value.

8. A database authorization record batch-revoking device configured to perform any one of the steps of claims 1 to 5.

9. A database authorization record validity verification device configured to perform any one of the steps of claims 6 to 7.